Ceres, Inc.
Form S-1/A
September 16, 2011

Table of Contents

As filed with the Securities and Exchange Commission on September 16, 2011
Registration No. 333-174405

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Amendment No. 6
to
Form S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CERES, INC.
(Exact name of registrant as specified in its charter)

Delaware	**100**	**33-0727287**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

1535 Rancho Conejo Boulevard
Thousand Oaks, CA 91320
(805) 376-6500
(Address, including zip code, and telephone number, including area code, of Registrant s principal executive offices)

Richard Hamilton
President and Chief Executive Officer
Ceres, Inc.
1535 Rancho Conejo Boulevard
Thousand Oaks, CA 91320

Telephone: (805) 376-6500
Facsimile: (805) 498-1002
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Danielle Carbone, Esq.
Shearman & Sterling LLP
599 Lexington Avenue
New York, New York 10022
Telephone: (212) 848-4000
Facsimile: (212) 848-7179

Kevin P. Kennedy, Esq.
Simpson Thacher & Bartlett LLP
2550 Hanover Street
Palo Alto, California 94304
Telephone: (650) 251-5130
Facsimile: (650) 251-5002

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer , accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer o	Non-accelerated filer þ	Smaller reporting company o
			(Do not check if a smaller reporting company)

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion. Dated September 16, 2011.

Shares

Common Stock

This is an initial public offering of shares of common stock of Ceres, Inc. All of the shares of common stock are being sold by the Company.

Prior to this offering, there has been no public market for the common stock. It is currently estimated that the initial public offering price per share will be between $ and $. We have applied to list our common stock on the Nasdaq Global Market under the symbol CERE .

See Risk Factors on page 13 to read about factors you should consider before buying shares of the common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	$	$
Underwriting discount	$	$
Proceeds, before expenses, to Ceres	$	$

To the extent that the underwriters sell more than shares of common stock, the underwriters have the option to purchase up to an additional shares from Ceres at the initial public offering price less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York on , 2011.

Goldman, Sachs & Co. **Barclays Capital**

Piper Jaffray **Raymond James** **Simmons & Company International**

Prospectus dated , 2011.

Table of Contents

Ceres staff walk among sorghum plants near College Station, Texas. Ceres, Inc.

TABLE OF CONTENTS

Through and including , 2011 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer s obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

We have not, and the underwriters and their affiliates have not, authorized anyone to provide you with any information or to make any representation not contained in this prospectus. We do not, and the underwriters and their affiliates do not, take any responsibility for, and can provide no assurance as to the reliability of, any information that others may provide to you. This prospectus is not an offer to sell or an offer to buy shares of our common stock in any jurisdiction where offers and sales are not permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock.

Neither we nor any of the underwriters have done anything that would permit a public offering of the shares of our common stock or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information you should consider in making your investment decision. You should read this summary together with the more detailed information, including our financial statements and the related notes, contained in this prospectus. You should carefully consider, among other things, the matters discussed in Risk Factors , before making an investment decision. Unless otherwise indicated in this prospectus, Ceres , our company , the Company , we , us and our re Ceres, Inc. and our subsidiary, Ceres Sementes do Brasil Ltda.

Business Overview

Our Company

We are an agricultural biotechnology company selling seeds to produce renewable bioenergy feedstocks that can enable the large-scale replacement of petroleum and other fossil fuels. We use a combination of advanced plant breeding and biotechnology to develop new crops, known as dedicated energy crops, that we believe address the limitations of first-generation bioenergy feedstocks, such as corn and sugarcane, increase biomass productivity, reduce crop inputs and improve cultivation on marginal land.

Our first large-scale commercial products are proprietary sweet sorghum varieties that can be used as a drop-in feedstock to extend the operating season of Brazilian sugarcane-to-ethanol mills, the operating days of which are currently limited due to the inherent limitations of sugarcane physiology and growth patterns. Our dedicated energy crops can also be used for the production of second-generation biofuels and bio-based chemicals, including cellulosic ethanol, butanol, jet fuel, diesel-like molecules and gasoline-like molecules, from non-food biomass. Finally, baseload utility-scale electric power can also be generated from the biomass feedstocks grown from our seeds.

The seed industry has historically required very little capital to manufacture seeds, and seeds have typically been priced based on a share of the value they create and thus have generated high gross margins. As a producer of proprietary seeds, we believe we are in the most attractive segment of the bioenergy value chain upstream from the capital intensive refining and conversion of biomass. For example, in 2009 corn seed providers maintained high margins when volatile commodity prices significantly impacted corn ethanol refining margins. Therefore, we believe our success is tied to adoption of our products rather than the relative profitability of downstream participants. Our upstream position in the value chain also allows us to be largely independent of the success of any particular conversion technology or end use.

Our Technology

We develop low-input dedicated energy crops capable of producing high yields per acre using innovative plant breeding and trait biotechnology. By developing these types of crops, we enable the scalable, sustainable and economic production of bioenergy. Our proprietary collection of energy crop parent lines, known as germplasm, in combination with our pipeline of biotechnology traits allows us to develop bioenergy feedstocks to meet the needs of both biomass refineries and growers of biomass, all while using less water and less fertilizer than row crops like corn or soybean, even if grown on marginal land. We believe that the strength of our technology has been validated by our receipt of multiple competitive grants and collaborations, including a United States Agency for International Development, or USAID, grant and one of the U.S. Department of Energy s first Advanced Research Project Agency for Energy, or ARPA-E, grants in 2009, as well as a $137 million multi-year collaboration with Monsanto Company signed in 2002. We also have significant intellectual property rights to our technology platforms, traits and seed

products.

Table of Contents

Our Products

We market and sell our sweet sorghum seeds in Brazil and our switchgrass and high biomass sorghum seeds in the United States under our brand, Blade Energy Crops, or Blade. Our largest immediate commercial opportunity is the Brazilian ethanol market, which currently uses sugarcane as its predominant feedstock. Due to the inherent limitations of sugarcane physiology and growth patterns, Brazilian mill operators typically obtain sugarcane that makes mill operation economically feasible approximately 200 days per year, based on a report issued by the Brazilian Ministry of Agriculture s crop forecasting agency, Companhia Nacional de Abastecimento (Conab), dated May 2010. This results in an estimated 3.4 million metric tons per day of crushing capacity, according to our estimate, which we derive from a 2011 Brazil Agrianual report. Boa Vista / Nova Fronteira, a joint venture of Grupo São Martinho S.A. and Petrobras Biofuels, recently planted, harvested and processed a commercial-scale planting of our sweet sorghum products and produced both ethanol and power using the existing agricultural equipment and processing infrastructure. Similar activities have been completed with two other Brazilian ethanol producers, ADM do Brasil Ltda. and Usina Rio Pardo S.A. Our sweet sorghum harvested from the agronomy trial at ADM do Brasil Ltda. was used to produce table sugar at a neighboring mill using a blend of 14 parts sugarcane and one part sweet sorghum. We believe the success of our first commercial-scale planting at the mill owned by Boa Vista/Nova Fronteira, a joint venture of Grupo São Martinho S.A. and Petrobras Biofuels, demonstrates the drop-in nature of our sweet sorghum products, and along with the seed-based propagation, shorter growing cycle and lower water and fertilizer requirements of sweet sorghum relative to sugarcane, will serve as the basis for expanded adoption of this product line as a feedstock for ethanol and power production in Brazil and other markets. Based on our trial results to date and pipeline of products under development, we believe the adoption of our sweet sorghum hybrids could extend a mill s operations by approximately 60 days.

We also work with refining technology companies in the emerging cellulosic biofuels and bio-based chemicals markets. We believe that dedicated energy crops will enable both individual renewable energy projects and the industry as a whole to reach greater scale and sustainability, at lower costs, than other potential sources of biomass because of their yields, hardiness and relatively low input requirements. We believe our dedicated energy crop portfolio is compatible with a number of developing cellulosic biofuels conversion technologies and we are working with a number of companies to test our energy crops in their respective production processes.

Our dedicated energy crops also can be used to generate electricity in existing solid-fuel power facilities, such as coal-fired generating plants. We believe we will see a material increase in demand for biopower in the event that additional renewable energy legislation is passed in the United States, Europe or other countries that requires a higher percentage of generation from low-carbon sources or provides equal production incentives for the co-firing of biomass with coal, as are currently available for wind and solar power.

Finally, due to the nature of biotechnology, we believe other crops can benefit from many of the traits we are developing for dedicated energy crops, such as traits that improve water use efficiency and salt tolerance. By combining genes into a series of stacks, we believe, and our initial results indicate, that we can achieve step-change improvements to the productivity of many row crops, including corn, soybean, rice and wheat.

Market Opportunity

The world continues to seek economically and environmentally sound alternatives to fossil fuel-based transportation fuels and power. We believe bioenergy is one of the few viable replacements for fossil fuels, particularly petroleum. Unlike other renewable technologies, biofuels are intended to utilize existing vehicles and transportation fuel infrastructure. Similarly, biopower, unlike wind and solar power, can provide baseload and dispatchable generation of renewable electricity. Despite the potential of biofuels, first-generation biofuel feedstocks have demonstrated their limitations in terms of scale, perceived competition with food production, net energy balance and dependence on

government subsidies. Similarly, current sources of biomass, such as forestry residues and agricultural wastes, are limited in scale and are not optimized for use in bioenergy. They are also by-

products derived from other processes and therefore subject to supply disruptions. Our dedicated energy crops provide an attractive combination of high yield density, high net energy balances, low input requirements, the ability to grow on marginal land and, as a dedicated source of feedstock, the potential to be tailored for specific production and refining processes. As a result, we believe that dedicated energy crops will become a critical component for growth of the biofuel, bio-based chemicals and biopower markets.

Biofuels and Bio-Based Chemicals

Modern lifestyles and economies are highly reliant on petroleum and its by-products across a wide variety of industries, including light-duty transportation, aviation, diesel, shipping, lubricants, polymers, resins and cosmetics. According to the Energy Outlook Report published in April 2011 by the U.S. Energy Information Administration, or EIA, global oil production averaged 87.9 million barrels per day in the first quarter of 2011. The transportation fuel component of petroleum is valued at over $2 trillion per year, according to EIA. The vast majority of bio-based replacements for petroleum and petroleum-based chemicals are currently produced by fermentation of starch sources and free or soluble sugars primarily derived from corn and sugarcane, respectively. Commonly referred to as first-generation biofuels and bio-based chemicals, the production and conversion processes for these feedstocks are well-established. However, as the world looks to increase its consumption of biofuels and their derivatives, these first-generation feedstocks face challenges to meet increased demand.

In Brazil, which has recently been importing corn ethanol to meet its domestic demand, we believe that mill operators will seek alternatives that will allow them to increase production utilization of their existing mills beyond the average 200 days per year schedule in order to maximize their market opportunity. On a global basis, we expect petroleum consumption will be further replaced by products made from the conversion of non-food biomass into biofuels and bio-based chemicals. Today, there are more than 50 companies, including large multinational companies, such as BP p.l.c., Royal Dutch Shell plc, Total S.A. and Valero Energy Corporation, and independent companies, such as KiOR, Inc. and Coskata, Inc., focused on improving non-food biomass conversion technologies. According to a 2011 report published by International Energy Agency, or IEA, biofuel production could reach approximately 112 billion gallons per year by 2030, up from 26 billion gallons in 2010. To meet these targets, the IEA believes feedstock production would need to increase to 150 million acres in 2030, up from 75 million acres in 2010. We believe quadrupling the volume of biofuels while only doubling the feedstock production acres will require higher yielding second-generation feedstocks.

Biopower

Globally, 7.92 trillion kilowatt-hours of electricity were generated from coal in 2007, or 42% of total global power generation, according to the EIA, which we estimate required 3.6 billion tons of coal. By comparison, a report released in May 2010 by EIA states that globally, approximately 235 billion kilowatt-hours of electricity were generated from biomass and wastes, or 57% of all renewable energy generation, excluding hydropower, which we estimate required 200 million dry tons of biomass. The conversion of biomass to power has traditionally been fueled by bio-based waste products and residues from the paper and timber industries. As is the case for biofuels, we believe this practice has limited the size, location, efficiency and scale of biomass power generation because power producers can not reliably secure long-term supplies and consistent quality feedstock. We believe we will see a material increase in demand for biopower in the event that additional renewable energy legislation is passed in the United States, Europe or other countries that requires a higher percentage of generation from low-carbon sources, or that incentivizes the co-firing of biomass.

Food and Feed Crops

According to a 2010 report published by the International Service for the Acquisition of Agri-Biotech Applications, or ISAAA, approximately 366 million acres of biotechnology crops were planted globally in 2010. The global market value of biotechnology crop seeds was $11.2 billion, as reported in the same

Table of Contents

report by ISAAA. In order to continue the productivity gains made in many crops over the past 75 years, and to do so in a more sustainable manner, we believe that advanced breeding methods, and biotech traits, in particular, will be required to produce higher performance crops that make more productive use of cultivated land, as well as to develop more robust, stress-tolerant crops that can grow under more difficult conditions and on marginal land. Our belief is consistent with historical yield improvements achieved via plant breeding and the adoption of agricultural biotechnology.

Our Solutions

We believe that nearly all bioenergy and bio-based chemical applications will ultimately depend on high yielding, low-cost, low-carbon, scalable, reliable and sustainable sources of feedstock. We believe biomass from our dedicated energy crops and traits have the potential to become the common denominator in a broad array of bio-based products, including ethanol, butanol, jet fuel, diesel-like molecules and gasoline-like molecules, as well as electric power and heat, and can enable the development of larger-scale processing facilities given the high yield density and conversion efficiency of dedicated energy crops. Specifically, our dedicated energy crops have the following characteristics, which we believe will make them a critical component in the large-scale production of these bio-based products:

Drop-in Products

Our products are drop-in solutions because they can be planted, harvested and processed using existing agricultural equipment with little or no modification and are being developed to be drop-in for all conversion technologies using sugarcane or biomass feedstocks, facilitating their rapid adoption.

High Yield Density

Our dedicated energy crops are developed to produce high biomass or sugar yields per acre. For cellulosic biofuels, bio-based chemicals and biopower, energy grasses can yield significantly more dry tons per acre per year compared to agricultural residues and woody biomass. This maximizes the productivity of available land and shortens the collection radius for a conversion facility of a particular size.

Dedicated to Bioenergy

Unlike many other bioenergy feedstocks, our dedicated energy crops are currently not intended for other uses and are typically grown exclusively to be harvested as part of the bioenergy value chain, creating a stable supply that will appeal to owners of conversion technologies who will have invested significant capital in their infrastructure and will therefore require reliable and cost-effective feedstocks.

Suited to Marginal Land

Our dedicated energy crops can grow in a broad range of environments, including those not well-suited for most food crops. We are developing biotech traits that provide salt tolerance, drought tolerance and greater nitrogen use efficiency.

Scalable to Meet Demand

Our energy crops are highly scalable, allowing us to match our production with growing demand for our seeds on relatively short notice compared to sugarcane, which can take several years to scale up commercially.

Table of Contents

Competitive Strengths

We believe that we possess a number of competitive strengths that position us to become a leading provider of dedicated energy crop seeds and traits, including:

Commercial Products Available Today

We currently have a number of commercially available seed products, including sweet sorghum, switchgrass and high biomass sorghum. Our sweet sorghum hybrids have been successfully planted, harvested and processed into ethanol and power in Brazil in commercial-scale projects. We have received the necessary governmental variety registrations for the sweet sorghum varieties we are marketing in Brazil for planting in the 2011-2012 growing season and we have begun selling seeds and have recently entered into purchase orders with customers in Brazil. Since other sugarcane-to-ethanol mills face the same limits on production, we believe our demonstrated success in the 2010-2011 growing season will facilitate the rapid development of this market and enable the expansion of our market share in Brazil and in other geographies.

Attractive Business Model

Seed businesses traditionally incur significant research and development expenditures and have long product development time lines, but benefit from a combination of high gross margins, low capital expenditure requirements and intellectual property protection. We believe we can position our business to take advantage of low production costs relative to the high value of our products to our customers.

Innovative R&D Technology Platforms

In order to maintain the strong position we have established with our combined strengths in germplasm and field-validated traits, we use our research and development expertise to continually improve our product offerings. We believe that our innovative integrated breeding and biotechnology approach allows us to efficiently identify traits, effectively express these traits in crops, and more quickly commercialize new and improved seeds and traits for the market. We have both biotech traits and non-biotech traits and some of our biotech traits have been successfully evaluated in the field; however, they are still several years away from commercialization.

Extensive Proprietary Portfolios of Germplasm and Traits

While many companies have developed portfolios of germplasm or traits, we believe we are one of the only companies focused on dedicated energy crops with large portfolios of both germplasm and field-validated traits. We believe new market entrants would need to cultivate several generations of germplasm to achieve performance equivalent to our current product portfolio by which time we believe we will have further evolved our germplasm. Therefore, we believe our proprietary position would be difficult and time-consuming to replicate. We also believe that we have established a strong intellectual property position in plant genes, traits and energy crop germplasm.

Management Team with Significant Industry Experience

Our experienced management team possesses a deep understanding of a variety of agricultural, chemical and industrial biotechnology businesses, including the seed industry, as well as our regional markets of Brazil, the United States and Europe. Our management team also includes top scientists and industry experts, some of whom have served in leadership roles at large, multinational corporations, served on advisory committees for the U.S. Department of Energy, led ground-breaking research studies and published numerous scientific articles.

For a list of the challenges and risks we face, see Summary of Risk Factors.

Table of Contents

Our Strategy

Our objective is to be the leading provider of dedicated energy crop seeds and traits to the renewable energy industry, including first-generation biofuels such as ethanol as well as cellulosic biofuels, biopower and bio-based chemicals by employing the following strategies:

Expand Our Presence in Brazil

We intend to use our recent success with leading ethanol producers, including Boa Vista / Nova Fronteira, a joint venture of Grupo São Martinho S.A. and Petrobras Biofuels, to promote brand awareness and expand our presence in Brazil.

Expand Strategic Collaborations to Develop and Market Cellulosic Biofuels

We plan to play a significant role in developing the second-generation biofuels and bio-based chemicals market, which we believe represents a significant opportunity. We intend to establish new collaborations and expand our current collaborations with leading cellulosic biorefining companies, technology providers and project developers to further validate our products across various downstream technologies and to produce optimized feedstocks that are tailored to meet the specifications of existing and new refining technologies.

Expand Our Business into New Markets

We intend to market our Blade Energy Crops brand as a symbol of quality, innovation and value across multiple biofuel, bio-based chemicals and biopower markets in a broad range of climates and geographies. We intend to use our large portfolios of field-validated traits and germplasm, combined with our advanced technology platforms, to develop products for a wide variety of niches and seize upon future market opportunities, regardless of the fuel or chemical molecule or engine choice.

Build New Relationships and Enhance Established Collaborations in the Global Biopower Market

We intend to cultivate collaborations with new parties, particularly those in Europe where we believe the market opportunity for biopower is more established today and the market need is more immediate in light of existing government regulations.

Continue Innovation and New Product Development

We are continuing to develop innovative solutions using a broad range of technological tools, including genomics, biotechnology and proprietary bioinformatics in order to produce crop varieties with improved yields and other performance characteristics. For example, we have identified traits that will help optimize results for growers located in geographies with varying day lengths, rainfall, temperatures and soil composition (e.g., salt, aluminum and nitrogen).

Continue to Build Our Intellectual Property Portfolio

We believe we have established a strong intellectual property position in plant genes, traits and energy crop germplasm, based on the nature, size and filing dates of our patent portfolio and plant variety protection certificates. We believe we are one of the few companies focused on dedicated energy crops that have this combination of intellectual property assets. We use our integrated technology platforms to continually improve our products and develop innovations that will further strengthen our intellectual property position.

Summary of Risk Factors

Our business is subject to a number of risks and uncertainties that you should understand before making an investment decision. These risks are discussed more fully in the section entitled

Table of Contents

Risk Factors following this prospectus summary. These risks include, but are not limited to, the following:

- We have a history of net losses; we expect to continue to incur net losses and we may not achieve or maintain profitability.
- Our products are in the early stages of commercialization.
- The markets for some of our dedicated energy crops are not well established and may take years to develop or may never develop and our growth depends on customer adoption of our dedicated energy crops.
- Our crops are new and most growers will require substantial instruction to successfully establish, grow and harvest crops grown from our seeds.
- Our largest immediate commercial opportunity is the Brazilian ethanol market and we only recently completed our first commercial-scale plantings of our sweet sorghum products in Brazil.
- The pricing for our products, including our sweet sorghum products, for the Brazilian market may be negatively affected.
- Our business will be adversely affected if the field trials being conducted by our collaborators or potential customers fail to perform as expected.
- We face significant competition in all areas of our business, and if we do not compete effectively, our business will be harmed.
- Our inability to adequately protect our proprietary technologies and products could harm our competitive position.
- Litigation or other proceedings or third party claims of infringement could require us to spend time and money and could severely disrupt our business.

Corporate Information

We were incorporated in the State of Delaware in March 1996 under the name Ceres, Inc. Our corporate headquarters are located at 1535 Rancho Conejo Boulevard, Thousand Oaks, California 91320, and our telephone number is +1(805) 376-6500. Our website address is *www.ceres.net*. The information contained on our website or that can be accessed through our website is not part of this prospectus, and investors should not rely on any such information in deciding whether to purchase our common stock.

Our logos, Ceres®, The Energy Crop Company®, Blade Energy Crops®, Blade® and Skyscraper® and other trademarks or service marks of Ceres, Inc. appearing in this prospectus are the property of Ceres, Inc. This prospectus contains additional trade names, trademarks and service marks of other companies. We do not intend our use or display of other companies trade names, trademarks or service marks to imply relationships with, or endorsement or sponsorship of us by, these other companies.

Conversion Metrics

This prospectus contains references to acres, hectares, gallons, liters, wet tons, dry tons and kilograms. In the United States, blendstock fuels are typically measured and sold in gallons. In other parts of the world, the standard unit is

liters. The following table sets forth the conversion factor between metrics.

1 Hectare	=	2.471 Acres	
1 Gallon	=	3.785 Liters	
1 Wet Ton	=	1,000 Kilograms	*(Measurement commonly used to measure feedstock yields)*
1 Dry Ton	=	907 Kilograms	*(Measurement commonly used to measure dry biomass for cellulosic biofuels and biopower)*

Table of Contents

THE OFFERING

Common stock offered	shares.
Common stock to be outstanding after this offering	shares, or shares if the underwriters exercise their option to purchase additional shares in full.
Use of proceeds	We intend to use the net proceeds from this offering for research and development, capital expenditures, commercial activities, working capital and other general corporate purposes, which may include acquisitions of other companies, assets or technologies. See Use of Proceeds .
Proposed Nasdaq Global Market trading symbol	CERE

The number of shares of common stock that will be outstanding after this offering is based on 6,042,792 shares outstanding as of August 31, 2011, and excludes:

- 7,792,219 shares of common stock issuable upon exercise of options to purchase our common stock outstanding as of August 31, 2011, at a weighted average exercise price of $2.02 per share;
- 5,296,845 shares of common stock issuable upon exercise of warrants to purchase our common stock outstanding as of August 31, 2011, at a weighted average exercise price of $6.90 per share;
- 61,537 shares of common stock issuable upon exercise of warrants to purchase our preferred stock outstanding as of August 31, 2011, at a weighted average exercise price of $6.50 per share; these preferred stock warrants will automatically convert to common stock warrants upon the completion of this offering;
- 32,251 shares of common stock reserved as of August 31, 2011, for future issuance under our 2010 Stock Option/Stock Issuance Plan as more fully described in Compensation Discussion and Analysis Executive Compensation Equity Compensation Plans ; and
- 4,000,000 shares of common stock reserved for future issuance under our 2011 Equity Incentive Plan, which will become effective on the day prior to the day upon which we become subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Except as otherwise indicated, all information in this prospectus assumes:

- the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 46,059,819 shares of common stock effective immediately prior to the completion of this offering;
- the issuance of shares of common stock pursuant to the automatic conversion of our convertible subordinated notes, or the Convertible Notes, upon the consummation of this offering, as described in

Certain Relationships and Related Party Transactions, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus;

the issuance of shares of common stock immediately prior to the completion of this offering upon the net exercise of warrants outstanding to purchase shares of common stock, which would otherwise expire upon the completion of this offering, assuming an

Table of Contents

initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus;

the filing of our amended and restated certificate of incorporation immediately prior to the completion of this offering; and

no exercise by the underwriters of their right to purchase up to an additional shares of common stock at the initial public offering price.

Table of Contents

SUMMARY CONSOLIDATED FINANCIAL DATA

The following table summarizes our consolidated financial data. In 2009, we changed our fiscal year end from December 31 to August 31. The change was effective for the eight-month period ended August 31, 2009. We have derived the following summary consolidated statement of operations data for the fiscal years ended December 31, 2007 and 2008, the eight months ended August 31, 2009, the fiscal year ended August 31, 2010, and the nine months ended May 31, 2011 from our audited consolidated financial statements appearing elsewhere in this prospectus. The summary consolidated financial data for the nine month period ended May 31, 2010 has been derived from our unaudited consolidated financial statements included elsewhere in this prospectus. The unaudited consolidated financial statements have been prepared on a basis consistent with our audited consolidated financial statements and include, in the opinion of management, all adjustments, consisting only of normal and recurring adjustments, necessary for a fair presentation of such consolidated financial data. Results for interim periods are not necessarily indicative of results for a full fiscal year. Historical results are not necessarily indicative of results for future periods. You should read the summary of our consolidated financial data set forth below together with the more detailed information contained in Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the related notes appearing elsewhere in this prospectus.

Table of Contents

	Year Ended December 31, 2007	2008	Eight Months Ended August 31, 2009	Year Ended August 31, 2010	Nine Months Ended May 31, 2010 (Unaudited)	2011
	(In thousands, except share and per share data)					
Consolidated Statement of Operations						
Revenues						
Product sales	$	$ 64	$ 98	$ 288	$ 236	$ 97
Collaborative research and government grants	7,180	3,880	2,328	6,326	4,095	4,799
Total revenue	7,180	3,944	2,426	6,614	4,331	4,896
Cost and operating expenses						
Cost of product sales		3,777	2,690	2,946	2,217	1,940
Research and development	19,220	20,309	12,397	16,697	12,639	13,837
Selling, general and administrative	9,811	8,784	6,645	9,207	6,844	6,900
Total cost and operating expenses	29,031	32,870	21,732	28,850	21,700	22,677
Loss from operations	(21,851)	(28,926)	(19,306)	(22,236)	(17,369)	(17,781)
Interest expense	(123)		(5)	(153)	(91)	(365)
Interest income	1,521	2,001	243	23	21	6
Other income (expense)	5		161	(152)	(167)	(1,450)
Loss before income taxes	(20,448)	(26,925)	(18,907)	(22,518)	(17,606)	(19,590)
Income tax benefit (expense)	(7)	148	211	(65)	14	28
Net loss	$ (20,455)	$ (26,777)	$ (18,696)	$ (22,583)	$ (17,592)	$ (19,562)
Basic and diluted net loss per share attributable to common	$ (3.84)	$ (4.89)	$ (3.33)	$ (3.90)	$ (3.05)	$ (3.31)

stockholders(1)						
Weighted average outstanding common shares used for net loss per share attributable to common stockholders:						
Basic and diluted(1)	5,323,259	5,473,090	5,621,671	5,791,443	5,775,322	5,917,179
Pro forma net loss per share:						
Basic and diluted (unaudited)(2)				$		$
Weighted average outstanding common shares used in computing pro forma net loss per share:						
Basic and diluted (unaudited)(2)						

(1) The basic and diluted loss per share are computed by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding during the period. For the periods where we presented losses, all potentially dilutive common shares comprising of stock options, warrants and convertible preferred stock are anti-dilutive.

(2) The unaudited pro forma basic and diluted loss per common share have been computed as though the conversion had occurred as of September 1, 2009 to give effect to: (i) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 46,059,819 shares of common stock immediately prior to the completion of this offering using the if-converted method, (ii) the issuance of shares of common stock pursuant to the automatic conversion of the Convertible Notes upon the consummation of this offering, as described in Certain Relationships and Related Party Transactions, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus and (iii) the issuance of shares of common stock immediately prior to the completion of this offering upon the net exercise of warrants outstanding to purchase shares of common stock, which would otherwise expire upon the completion of this offering, based upon an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, using the treasury stock method.

Table of Contents

Our consolidated balance sheet data as of May 31, 2011 is presented:

on an actual basis;

on a pro forma basis to give effect to (i) the conversion of all outstanding shares of our convertible preferred stock into 46,059,819 shares of our common stock, (ii) the sale of $11.4 million aggregate principal amount of Convertible Notes and the application of the proceeds therefrom; (iii) the issuance of shares of common stock pursuant to the automatic conversion of the Convertible Notes upon the consummation of this offering, as described in Certain Relationships and Related Party Transactions, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, and (iv) the issuance of shares of our common stock upon the assumed net exercise of warrants outstanding to purchase shares of common stock, which would otherwise expire upon the completion of this offering, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus; and

on a pro forma as adjusted basis to give effect to the pro forma adjustments and the sale of shares of common stock by us in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	As of May 31, 2011		
	Actual	Pro Forma	Pro Forma as Adjusted(1)
		(In thousands)	(Unaudited)
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 17,717	$	$
Total assets	31,594		
Total indebtedness (including short-term indebtedness)	4,723		
Common and preferred stock warrant liabilities	10,361		
Convertible preferred stock	197,502		
Total stockholders (deficit) equity	(188,526)		

(1) Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, would increase or decrease, as applicable, our cash and cash equivalents, total assets and total stockholders equity (deficit) by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this prospectus, including the consolidated financial statements and the related notes appearing elsewhere in this prospectus, before making an investment decision. If any of the following risks actually occurs, our business, financial condition, results of operations and future prospects could be materially and adversely affected. The trading price of our common stock could decline due to any of these risks, and, as a result, you may lose all or part of your investment in our common stock.

Risks Related to Our Business

We have a history of net losses; we expect to continue to incur net losses and we may not achieve or maintain profitability.

With the exception of the fiscal years ended December 31, 2003, 2005 and 2006, we have incurred net losses each fiscal year since our inception, as well as for the nine months ended May 31, 2011. From our inception to May 31, 2011, we had an accumulated deficit of $195.9 million. We expect to incur additional losses for at least the next several years as we continue to invest in our research and development programs, to develop new products and to move forward with our commercialization activities. The extent of our future net losses will depend, in part, on our product sales growth and revenue from collaborations and government grants, and on the level of our operating expenses. To date, substantially all of our revenue has been derived from collaboration agreements and government grants, and we have had very limited revenue from seed sales. Over the next several years, we expect our revenue will shift from being derived primarily from collaborations and government grants to product sales. Our ability to generate future revenue will depend upon our ability to meet our obligations under our collaborations and government grants, to enter into new collaborations or out-licensing agreements and to successfully commercialize our products. The market for seeds for dedicated energy crops is relatively new and still developing and our success in generating revenue from product sales depends in the near term in large part on the success of our sweet sorghum products in Brazil and in the future on the adoption of other dedicated energy crops as a biomass feedstock. Even if we do achieve profitability, we may not be able to sustain or increase our profitability on a quarterly or annual basis.

Our products are in the early stages of commercialization.

Our existing products are in the early stages of commercialization and our efforts to commercialize our products may not be successful. Our product sales for the year ended August 31, 2010 and the nine months ended May 31, 2011 were minimal and were derived mainly from sales to third parties that were field testing our products. We have only recently begun selling seeds and entering into purchase orders with customers in the Brazilian market.

The markets for our other products, mainly switchgrass and high biomass sorghum, are not fully developed. We completed our first sale of switchgrass seeds in 2009 and high biomass sorghum seeds in 2010 and to date have sold less than $0.5 million of these products in the aggregate. In addition, our seed-propagated miscanthus product is still under development and is not yet available for commercial sale.

Our business strategy going forward heavily relies on our ability to introduce crops with genetically engineered, or biotech traits. The commercial development of biotech traits in commercial crops is a multi-year process. Following transformation, when the optimized gene is inserted in a target crop, the resulting plants are evaluated in the greenhouse for one to two years, and then in the field to confirm results for two to four years. Following field trials, specific gene-trait combinations are selected and submitted for regulatory approval, or deregulation, a process that has

historically taken one to three years in the United States and Brazil. Assuming these averages, we believe that we

Table of Contents

could introduce our first biotech trait or traits to the market in 2016 at the earliest. By contrast, our existing sweet sorghum, switchgrass and high biomass sorghum products have all been created through the use of conventional breeding. As a result, even if these products are successfully sold and adopted by customers, they do not necessarily demonstrate our ability to successfully develop, market and sell biotechnology products. If we are not able to bring our existing products or new products with significant commercial potential to market in a timely manner, we will not be successful in building a sustainable or profitable business.

The markets for some of our dedicated energy crops are not well established and may take years to develop or may never develop and our growth depends on customer adoption of our dedicated energy crops.

We sell proprietary seeds to produce dedicated energy crops for the renewable energy market, which is not well established and is evolving. Although our sweet sorghum products are targeted for use as a feedstock to produce ethanol, ethanol has historically been produced from corn in the United States and sugarcane in Brazil and we will need to demonstrate on a commercial scale that sweet sorghum can reliably be used as a cost-efficient feedstock for ethanol production. Cellulosic biofuels have been produced on a limited scale from woody biomass, such as wood chips, or agricultural residues, and we will need to demonstrate on a commercial scale that biomass grown from our seed products, including switchgrass and high biomass sorghum, can be used as cost-efficient feedstocks for the production of biofuels, biopower and other bio-based products.

Currently the market for dedicated energy crops is not well established, primarily because of the lack of infrastructure to support the development of this market, including the lack of commercial-scale production facilities capable of converting cellulosic feedstocks, referred to as cellulosic biorefineries. Existing first-generation ethanol biorefineries are not capable of using cellulosic feedstocks to produce ethanol. The development of this industry is also dependent, in large part, upon the efforts of many companies to improve conversion technologies which will play a significant role in enabling more cost-effective means of converting biomass into energy. A delay in the construction of cellulosic biorefineries or a failure to meaningfully improve conversion technologies could curtail one of our most significant market opportunities. Even if cellulosic biorefineries are established in the future, they may elect to use agricultural residues, waste material or woody biomass as feedstocks rather than dedicated energy crops, resulting in the lack of a robust market for our products.

Traditionally the market for biopower, which is the generation of electric power from combusting biomass, has been fueled mainly by bio-based waste products from the paper and timber industries. We believe that expansion of this market will be driven by governmental policies such as additional state and new federal mandates that require a certain percentage or absolute amount of electricity be generated from renewable sources by specified dates or production tax credits for co-firing biomass. We cannot predict the effect that existing legislation or the lack of legislation will have on the development of the biopower market in the United States or the European Union. To the extent that the market does not develop or biopower producers elect to continue to rely on bio-based waste products from the paper and timber industries, rather than dedicated energy crops, our market opportunity will be limited.

Our crops are new and most growers will require substantial instruction to successfully establish, grow and harvest crops grown from our seeds.

As part of our product development activities and customer support, we provide agricultural producers and biomass procurers with information and protocols regarding the establishment, management, harvest, transportation and storage of our energy crops for use in bioenergy. In addition to seed selections, such crop management recommendations may include equipment selection, planting and harvest timing, application of crop protection chemicals or herbicides and storage systems. While some of our crops, such as sorghum and switchgrass, have been grown for other uses, the crop management practices required for energy crop production are still new and are still

evolving. Our general or specific protocols may not apply to all circumstances, may not be sufficient, or may be incorrect, leading to reduced yields, crop failures or other production problems or losses by our customers or collaborators. Such failures may harm our customer or collaborator relationships, our reputation and our ability to successfully market our products, and may lead to liability claims against us. Further, the use of our seeds may require a change in current planting, rotation or agronomic practices.

Our largest immediate commercial opportunity is the Brazilian ethanol market and we only recently completed our first commercial-scale plantings of our sweet sorghum products in Brazil.

We recently concluded our first commercial-scale plantings of sweet sorghum in Brazil. In general, the results from these plantings indicate the plantings were successful. To the extent that these results wholly or in part did not meet our collaborators expectations, we may experience a significant delay in commercializing our sweet sorghum products in Brazil. We also worked with a number of other mill owners in Brazil that have tested our sweet sorghum products. Certain of these plantings deliberately occurred on marginal land and the harvest has been delayed beyond the ideal time in order to stress test the results and determine the level to which adverse conditions will affect the yield and other performance characteristics of our products. The results of these trials were therefore less than optimal and could create the perception that the planting was a failure. This could in turn discourage other mill owners from trying our sweet sorghum products. The future success of our drop-in sweet sorghum products in Brazil will depend on mill owners ability or willingness to devote proper resources, including land, to our products and the timing of planting and harvesting of our sweet sorghum products. The decision to devote land and resources to a particular crop is dependent on many factors, some of which are outside of our control. To the extent that our sweet sorghum field trials do not result in expected yields or are not replicable on a larger scale, we may have difficulty convincing sugarcane-to-ethanol mill owners to field test our products or purchase our sweet sorghum products.

The pricing for our products, including our sweet sorghum products, for the Brazilian market may be negatively affected.

Our products are in the early stages of commercialization and there is no established market for them. We have based the pricing of our products on our assessment of the value that our products provide to the customer, rather than on the cost of production. We may include trait fees in our seed prices, but our potential customers may be unwilling to pay such fees. If our customers attribute a lower value to our products than we do, they may not be willing to pay the premium prices we expect to charge. Pricing levels may also be negatively affected if our products are unsuccessful in producing the yields we expect. In addition, if our competitors are able to develop competitive products and offer them at lower prices, we may be forced to lower our prices.

The customers we intend to target in Brazil are generally large mill owners with long operating histories in the sugarcane-to-ethanol market that will have significant leverage in negotiating commercial relationships with us. As a result, we do not know whether these pricing negotiations will result in adequate margins or accurately reflect our pricing strategies, which could have a material adverse effect on our results of operations.

Our business will be adversely affected if the field trials being conducted by our collaborators or potential customers fail to perform as expected.

We and our collaborators and potential customers are currently conducting field trials of our products in various geographies around the world. We have limited control over field trials that are conducted by third parties and are dependent on their ability to follow our suggested protocols. There are various reasons these trials may fail to succeed, including planting our seeds too late in the growing seasons or the incorrect use of fertilizers, and we have in the past conducted trials that we

15

believe failed to fully meet the expectations of our collaborators. For example, in September 2009 NRG Energy, Inc. and Ceres began a pilot project at the Big Cajun II electrical generating station near New Roads, Louisiana to evaluate local conditions for growing our switchgrass and high biomass sorghum as renewable fuels for co-firing in this plant. In connection with this project, about 20 acres of energy crops were planted and managed for us by a local grower. NRG has publicly stated that this trial did not result in a usable crop and otherwise failed to produce biomass of sufficient quantity and quality for its purposes. Our investigations determined that this trial was adversely impacted by undisclosed herbicide residue in the soil and not by the quality of our products and that the portions of the field unaffected by these residues showed acceptable performance in line with our expectations. We also believe that this particular trial was ultimately cancelled more because of the lack of attractive U.S. government incentives than because of any failure of the crops. Nevertheless, these or other similar statements by our collaborators or potential customers could harm our reputation and the decision by these parties not to proceed with large-scale trials or seed purchases based on these results could harm our business, revenue and profitability.

Environmental factors, including weather, moisture, and plant infestations, may negatively affect the crops grown from our seeds or our seed inventories.

The plants grown from our seeds are subject to the vagaries of the weather and the environment, either of which can reduce crop yields. Weather conditions and natural disasters, such as heavy rains, hurricanes, hail, floods, tornados, freezing conditions, drought, fire or other natural disasters, can affect the timing of planting or harvesting and the acreage planted, as well as yields. The effects of disease, pests, fungi, bacteria and insect infestations can also be unpredictable and devastating to crops, potentially rendering all or a substantial portion of the affected harvests unsuitable for use. In addition, our crops and harvests may be adversely affected by climate change resulting from global warming, including changes in precipitation patterns and the increased frequency of extreme weather events. Each of these weather and environmental factors affects geographic regions differently. Should these or other environmental factors adversely affect the crops grown from our products, growers may be unable or unwilling to purchase our seeds or they may choose to purchase other seeds deemed better adapted to the particular climatic or environmental conditions they are facing.

The quality of our seed inventory could deteriorate due to a variety of factors, including the passage of time, temperature variations, moisture, insects, fungi, bacteria, disease or pests. If the quality of our seed inventory were to deteriorate below an acceptable level, the value of our seed inventory would decrease significantly and we might not be able to meet product demand. Should a substantial portion of our seed inventory be damaged by moisture, insects, fungi, bacteria, disease or pests, our business and financial condition could be materially and adversely harmed.

Our seed business is highly seasonal and subject to weather conditions and other factors beyond our control, which may cause our sales and operating results to fluctuate significantly.

The sale of seeds is dependent upon planting and growing seasons, which vary from year to year, and are expected to result in both highly seasonal patterns and substantial fluctuations in quarterly sales and profitability. Our product sales for the year ended August 31, 2010 and the nine months ended May 31, 2011 were minimal and, accordingly, we have not yet experienced the full nature or extent to which our business may be seasonal. We expect that sales of our seeds in Brazil will typically be higher in our first and fourth fiscal quarters, due to the timing of the planting decisions made by our customers. As we increase our sales in our current markets, and as we expand into new markets in different geographies, it is possible that we may experience different seasonality patterns in our business. Weather conditions and natural disasters, such as heavy rains, hurricanes, hail, floods, tornadoes, freezing conditions, drought or fire, also affect decisions by our customers about the types and amounts of seeds to plant and the timing of harvesting and planting such seeds. Disruptions that cause delays by our customers in harvesting or planting can result in the movement of orders to a

16

future quarter, which would negatively affect the quarter and cause fluctuations in our operating results.

A decline in the price of petroleum-based products may reduce the demand for many of our products and adversely affect our business.

We believe that some of the projected demand for renewable alternatives to fossil fuels is a result of the recent increase and volatility of oil prices that has occurred over the past few years. Oil and petroleum prices are currently at historically high levels. We anticipate that most of our product sales will be driven by the demand for alternatives to petroleum-based products. If the price of oil falls, and periods of lower oil prices are sustained, demand for biofuels or other bio-based products could also decline. Declining oil prices, or forecasts of a future decline in oil prices, may adversely affect the prices for renewable energy products and the prices we can obtain from our potential customers or cause potential customers to not buy our products, which could materially and adversely affect our operating results. We believe that our market opportunity to sell sweet sorghum seeds in Brazil is based, at least in part, on the recent shortages Brazil has encountered in producing sufficient quantities of sugarcane-based ethanol to satisfy local demand. We cannot predict whether these shortages will be sustained or whether the Brazilian market will experience periods of ethanol shortages in the future.

A significant increase in the price of sugar relative to the price of ethanol may reduce demand for our sweet sorghum and may otherwise adversely affect our business.

We intend to market our sweet sorghum varieties in Brazil as a drop-in feedstock to extend the operating season of Brazilian sugarcane-to-ethanol mills, the operating days of which are currently limited due to the inherent limitations of sugarcane physiology and growth patterns. For example, our proprietary varieties of sweet sorghum can be harvested from February to May while sugarcane, which is grown year-round, is typically harvested from April to December, depending on weather and market conditions. In addition, we may market our sweet sorghum seeds for planting on marginal land which would not otherwise be well suited for sugarcane. However, if the price of sugar, which is produced from sugarcane and which cannot be produced from sweet sorghum today, rises significantly relative to the price of ethanol, it may become more profitable for ethanol mill operators to grow sugarcane even in adverse conditions, such as through the expansion of sugarcane fields to marginal land or the extension of the sugarcane harvesting season. During sustained periods of significantly higher sugar prices, demand for our seeds may decrease, which could materially and adversely affect our operating results.

Our failure to accurately forecast demand for our seeds could result in an unexpected shortfall or surplus that could negatively affect our results of operations or our brand.

Because of the length of time it takes to produce commercial quantities of seeds, we must make seed production decisions well in advance of product bookings. For example, we must determine our expected demand for our sweet sorghum varieties approximately six months in advance of delivery, on average, while growers or mill operators make seed purchase decisions sometimes as late as 30 days in advance of planting. Our ability to accurately forecast demand can be adversely affected by a number of factors outside of our control, including changes in market conditions, environmental factors, such as pests and diseases, and adverse weather conditions. A shortfall in the supply of our products may reduce product sales revenue, damage our reputation in the market and adversely affect customer relationships. Any surplus in the amount of seed we have on hand, may negatively impact cash flows, reduce the quality of our inventory and ultimately result in write-offs of inventory. For example, in 2009, we produced an excess of switchgrass seeds because market demand for this product developed more slowly than anticipated. Any failure on our part to produce sufficient inventory or overproduction of a particular product could harm our business, results of operations and financial condition. Additionally, our customers may generally cancel an order or request a decrease in quantity

Table of Contents

at any time prior to delivery of the seed, which may lead to a surplus of our products. Even after delivery, a customer may occasionally return our seeds.

The performance of our sweet sorghum products in Brazil may be adversely affected by delays to the start of the Brazilian ethanol production season.

Once a mill owner begins to crush sugarcane or other feedstock in its mill, it generally seeks a continuous supply of the feedstock to run its mill without interruption until the feedstock is depleted. Our sweet sorghum is intended to be used as a season-extending crop. Should the sugarcane harvest season be delayed due to weather or other factors, a mill may choose to delay the harvest of sweet sorghum to avoid the downtime caused by a supply gap between a season-extending crop like sweet sorghum and sugarcane. Since our sweet sorghum grows quickly and maintains its peak sugars for one to two weeks, depending on growing conditions, delays in harvesting beyond this time period may result in lower sugar volumes per acre as well as other potential production issues as mature plants begin to decline and may lodge. Such issues could impact growers perception of the quality or usefulness of our products and, as a result, their willingness to purchase these products from us in the future.

Our product development efforts use complex integrated technology platforms and require substantial time and resources to develop and our efforts may not be successful or the rate of product improvement may be slower than expected.

The development of successful agricultural products using complex technology discovery platforms such as ours requires significant levels of investment in research and development, including field testing, to demonstrate their effectiveness and can take several years or more. For the fiscal year ended December 31, 2008, the eight months ended August 31, 2009, the fiscal year ended August 31, 2010 and the nine months ended May 31, 2011, we spent $20.3 million, $12.4 million, $16.7 million and $13.8 million, respectively, on research and development. We intend to continue to spend significant amounts on research and development in the future to continue to improve the performance of our products. Our substantial investment in research and development may not result in significant product revenues, particularly over the next several years. To date, companies have developed and commercialized relatively few dedicated energy crops, and no genetically engineered dedicated energy crops.

Development of new or improved agricultural products involves risks of failure inherent in the development of products based on innovative and complex technologies. These risks include the possibility that:

- our products will fail to perform as expected in the field;
- our products will not receive necessary regulatory permits and governmental clearances in the markets in which we intend to sell them;
- our products will be viewed as too expensive by our potential customers compared to competitive products;
- our products will be difficult to produce on a large scale or will not be economical to grow;
- proprietary rights of third parties will prevent us, our collaborators, or our licensees from marketing our products; and
- third parties may develop superior or equivalent products.

Loss of or damage to our germplasm collection would significantly slow our product development efforts.

We have access to a comprehensive collection of germplasm for sweet sorghum, high biomass sorghum, switchgrass and miscanthus through strategic collaborations with leading institutions.

Table of Contents

Germplasm comprises collections of genetic resources covering the diversity of a crop, the attributes of which are inherited from generation to generation. Germplasm is a key strategic asset since it forms the basis of plant breeding programs. To the extent that we lose access to these germplasm collections because of the termination or breach of our collaboration agreements, our product development capabilities would be severely limited. In addition, loss of or damage to these germplasm collections would significantly impair our research and development activities. Although we restrict access to our germplasm at our research facilities to protect this valuable resource, we cannot guarantee that our efforts to protect our germplasm collection will be successful. The destruction or theft of a significant portion of our germplasm collection would adversely affect our business and results of operations.

The successful commercialization of our products depends on our ability to produce high-quality seeds cost-effectively on a large scale.

The production of commercial-scale quantities of seeds requires the multiplication of the seeds through a succession of plantings and seed harvests, and if the product is a hybrid, it must be produced from parental lines, which are mated under controlled conditions. The cost-effective production of high-quality high-volume quantities of some of our products depends on our ability to scale our production processes to produce seeds in sufficient quantity to meet demand. We cannot assure you that our existing or future seed production techniques will enable us to meet our large-scale production goals cost-effectively for the products in our pipeline. Even if we are successful in developing ways to increase seed yields and enhance seed quality, we may not be able to do so cost-effectively or on a timely basis, which could adversely affect our ability to achieve profitability. If we are unable to maintain or enhance the quality of our seeds as we increase our production capacity, including through the expected use of third parties, we may experience reductions in customer demand, higher costs and increased inventory write-offs.

We depend, in part, on third parties to produce our seeds.

We produce commercial seed either on leased land managed by us or with contract seed producers. Our current production sites are located in the United States and Puerto Rico as well as Argentina, Bolivia and Brazil. In order to meet increased demand for our seeds, we will need to enter into additional land leases or arrangements with contract seed producers. If we need to engage contract seed producers, we may not be able to identify suitable producers in a specific region and if we do, we do not know whether they will have available capacity when we need their production services, that they will be willing to dedicate a portion of their production capacity to our products or that we will be able to enter into an agreement with them on acceptable terms. If any contract seed producer that we engage fails to perform its obligations as expected or breaches or terminates their agreements with us, or if we are unable to secure the services of such third parties when and as needed, we may lose opportunities to generate revenue from product sales.

We are at the beginning stages of developing our Blade brand and we have limited experience in marketing and selling our products and will need to expand our sales and marketing infrastructure.

We are in the beginning phases of building brand awareness for our dedicated energy crops. To date, we have had very little experience selling our products. We currently have limited resources to market and sell our products on a commercial-scale across various geographic regions. As of August 31, 2011, our sales and marketing and business development departments together had seven full-time employees. Developing our sales and marketing infrastructure and gaining the necessary expertise will require that we hire additional sales and marketing personnel, which could take longer than we expect and may require significant resources. We may be unable to grow our sales and marketing or business development infrastructure to adequately cover the geographic

regions where we see the most opportunity, which could slow the adoption of our products and the growth of product revenue.

We face significant competition in all areas of our business, and if we do not compete effectively, our business will be harmed.

The renewable energy industry is rapidly evolving and new competitors with competing technologies are regularly entering the market. We believe the primary competitive factors in the energy crop seed industry are yield, performance, scale, price, reliable supply and sustainability. We expect to face competitors on multiple fronts. First, we expect to compete with other providers of seed and vegetative propagation materials in the market for sweet sorghum, high biomass sorghum, switchgrass and miscanthus. While the competitive landscape in these crops is limited at this time, we anticipate that as our products gain market acceptance, other competitors will be attracted to this opportunity and produce their own seed varieties. Second, we believe that new as yet unannounced crops will be introduced into the renewable energy market and that existing energy crops will attempt to gain even greater market share. Existing crops, such as corn, sugarcane and oil palm trees, currently dominate the biofuels market. As new products enter the market, our products may become obsolete or our competitors products may be more effective, or more effectively marketed and sold, than our products. Changes in technology and customer preferences may result in short product life cycles. To remain competitive, we will need to develop new products and enhance and improve our existing products in a timely manner. Our failure to maintain our competitive position could have a material adverse effect on our business and results of operations.

Our principal competitors may include major international agrochemical and agricultural biotechnology corporations, such as Advanta India Limited, The Dow Chemical Company, Monsanto Company, Pioneer Hi Bred (DuPont), KWS and Syngenta, all of which have substantially greater resources to dedicate to research and development, production, and marketing than we have. We also face direct competition from other seed companies and biotechnology companies, and from academic and government research institutions. New competitors may emerge, including through consolidation within the seed or renewable energy industry. We are unable to predict what effect evolution of the industry may have on price, selling strategies, intellectual property or our competitive position.

In the broader market for renewable energy, we expect to face competition from other potential feedstocks, such as biomass residues from food crops, forestry trimmings and municipal waste materials, other renewable alternatives, such as algae, solar and wind-generated electricity, and other energy crops. There are multiple technologies that process biomass into biofuels and we have yet to determine compatibility of our feedstocks with all of these processes. Our failure to develop new or enhanced products that are compatible with these alternative technologies, or a lack of market acceptance of our products as the common denominator in a broad array of bio-based products that are alternatives to petroleum based products, could have an adverse effect on our business. Significant developments in alternative technologies, such as the inexpensive and large-scale storage of solar or wind-generated energy, may materially and adversely affect our business in ways that we do not currently anticipate.

A significant portion of our revenue to date is generated from our collaboration agreements and we must meet our obligations under these agreements in order to be entitled to the revenue streams from these agreements.

Historically, a significant portion of our revenue has been generated from payments to us under collaborative research agreements with third parties and we continue to opportunistically pursue new strategic collaborations. We are obligated under these agreements to perform research activities over a particular period of time. Certain of our agreements entitle us to milestone payments in the event the specified milestone is met. If we fail to perform our obligations under these agreements or any new collaborative research agreements we may enter into in the future, our revenues may decrease, or our collaborative partners may terminate or fail to renew the agreements. In addition, any of our

collaborators may fail to perform their obligations as expected, which may hinder our research and development efforts. We and our collaborators may disagree as to which party had rights to intellectual property developed under the agreements. Disagreements with our collaborators could develop and any conflict with a collaborator may negatively affect our relationship with one or more existing collaborators or our ability to enter into future collaboration agreements.

Our results of operations will be affected by the level of royalty payments that we are required to pay to third parties.

We are a party to license agreements with third party collaborators, including The Texas A&M University System and The Samuel Roberts Noble Foundation, Inc., that require us to remit royalty payments to these third parties if we incorporate their licensed intellectual property into our products. While we are currently working on developing numerous products that incorporate aspects of this intellectual property, we have to date only sold small amounts of such products. The amount of royalties that we could owe under these license agreements is a function of our sales and the applicable royalty rates depend on a number of factors, including the portion of our third-party collaborator s intellectual property that is present in our products. For additional details regarding potential future royalty payments, see Business Our Technology Platform.

Because of our historically limited volume of sales, we have little experience in calculating royalties under these license agreements and it is unclear exactly how much of this licensed intellectual property will be included in any final products we offer for commercial sale. As a result we cannot precisely predict the amount, if any, of royalties we will owe in the future. If, once we commence sales of these products, we determine that the products include more intellectual property of our third party collaborators than we had previously determined, or if our calculations of royalty payments are incorrect, we may owe more royalties, which could negatively affect our results of operations. As our product sales increase, we may, from time-to-time, disagree with our third party collaborators as to the appropriate royalty rate and the resolution of such disputes may be costly and may consume management s time. Furthermore, we may enter into additional license agreements in the future, which may also include royalty payments.

We are also a party to license agreements pursuant to which we have received licenses on certain intellectual property related to biotechnology products. When we commence sales of our biotechnology products in the future, or grant licenses to third parties to commercialize such products, we will be required to remit royalty payments to the parties from whom we have licensed intellectual property that covers such products.

A significant portion of our revenue to date is generated from government grants and continued availability of government grant funding is uncertain and contingent on compliance with the requirements of the grant.

Historically, a significant portion of our revenue has been generated from payments to us from government entities in the form of government grants whereby we are reimbursed for certain expenses incurred in connection with our research and development activities, subject to our compliance with the specific requirements of the applicable grant, including rigorous documentation requirements. To the extent that we do not comply with these requirements, our expenses incurred may not be reimbursed. Any of our existing grants or new grants that we may obtain in the future may be terminated or modified.

Our ability to obtain grants or incentives from government entities in the future is subject to the availability of funds under applicable government programs and approval of our applications to participate in such programs. The application process for these grants and other incentives is highly competitive. We may not be successful in obtaining any additional grants, loans or other incentives. The recent political focus on reducing spending at the U.S. federal and state levels may reduce the scope and amount of funds dedicated to renewable energy products, if such funds will continue to be

21

available at all. To the extent that we are unsuccessful in being awarded any additional government grants in the future, we would lose a potential source of revenue.

Our government grants may subject us to government audits, which could expose us to penalties.

We may be subject to audits by United States government agencies as part of routine audits of our activities funded by our government grants. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards and the terms and conditions of the grant. If any of our costs are found to be allocated improperly, the costs may not be reimbursed and any costs already reimbursed for such contract may have to be refunded. Accordingly, an audit could result in a material adjustment to our results of operations and financial condition. Moreover, if an audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions. In addition, we devote substantial resources to our systems used to track expenditures funded by our government grants.

The biofuel and biopower industries are highly dependent upon government subsidies and economic incentives, and any changes in such subsidies or incentives could materially and adversely affect the growth of the industry and our ability to sell dedicated energy crops.

The market for renewable energy in the United States is heavily influenced by government subsidies, economic incentives and tax credits and other regulatory initiatives that impact the production, distribution and adoption of renewable energy products. For example, the United States Renewable Fuel Standard program, or RFS, currently calls for 14 billion gallons of the liquid transportation fuels sold in 2011 to come from renewable biofuels, with proposed volumes of renewable fuel for 2012 to rise to 15 billion gallons. The U.S. Energy Independence and Security Act of 2007 increases the volume of renewable fuel required to be blended into transportation fuel to 36 billion gallons per year by 2022. Of this amount, the RFS currently states that 16 billion gallons of renewable biofuels used annually by 2022 must be cellulosic biofuel, such as could be created by our switchgrass product. The RFS has been modified in the past and may be modified again in the future. In the United States, the administrator of the Environmental Protection Agency, or EPA, in consultation with the Secretary of Energy and the Secretary of Agriculture may waive certain renewable fuel standards to avert economic harm or in response to inadequate supply. The administrator of the EPA is also required to reduce the mandate for cellulosic biofuel use if projected supply for a given year falls below a minimum threshold for that year. For example, because the supply of cellulosic biofuel was projected to be very limited in 2011, the EPA determined that the final volume standard for cellulosic biofuel for 2011 would be six million gallons and the projected volume for cellulosic biofuel for 2012 is between three and 13 million gallons, well below the 250 million gallon volume requirement target specified in the Energy Independence and Security Act. Any reduction in, or waiver of, mandated requirements for fuel alternatives may cause demand for renewable biofuels to grow more slowly or decline. Our business strategy in the United States is based, in part, on these standards remaining in place. Waivers of, or reduction in, the RFS or similar mandates, could have a material adverse affect on our ability to successfully grow demand for our cellulosic feedstock products in the United States.

In biopower, the reduction of, or failure to implement, certain government mandates, such as Renewable Electricity Standards in the U.S. or taxes on carbon emissions, as well as incentives, subsidies and tax credits to generate electric power from low-carbon sources, may adversely affect the viability of the field trials we conduct with our collaborators. These collaborators may terminate existing field trials or elect not to progress with planned field trials absent the implementation of such incentives.

In addition, the United States Congress has passed legislation that extends tax credits or other economic incentives for, among other things, the production of certain renewable fuel products. For example, the United States adopted the Renewable Energy Production Tax Credit that provides federal tax incentives for renewable energy projects, and the Biomass Crop Assistance Program, or BCAP, which provides risk mitigation and production incentives to encourage

growers to produce

dedicated energy crops. We believe that BCAP will influence the growth of the switchgrass and miscanthus markets; however, unless extended, BCAP expires in 2012. We cannot provide assurances that these tax credits or other economic incentives will remain in place. Any reduction in or phasing out or elimination of existing tax credits, subsidies and other incentives in the United States and foreign markets for renewable biofuels, or any inability of us or our prospective customers to access such credits, subsidies and other incentives, may adversely affect demand for, and increase the overall cost of our renewable transportation fuels, which would adversely the prospects for our business.

We believe that government incentives and economic initiatives in Europe and other countries will also affect demand for our dedicated energy crops. For example, in the United Kingdom, which is a potential export market for U.S.-grown biomass, independent power providers are required to obtain a certain portion of their power from renewable resources. Any reduction or termination of government incentives or economic initiatives outside the United States could also have a material adverse effect on our business.

Compliance with applicable government regulations, particularly with respect to biotechnology products, is time-consuming and costly.

There are certain regulatory requirements affecting the field testing and commercialization of our biotechnology products in each of the markets in which we operate. In the United States, the United States Department of Agriculture, or USDA, must review and deregulate our biotechnology products prior to commercial sale. The Biotechnology Regulatory Services, or BRS, within the USDA s Animal and Plant Health Inspection Service, or APHIS, has direct oversight of the field testing and deregulation of our biotechnology products, The deregulation process for biotechnology products is a costly, multi-year process, with no guarantee of success. The length of the deregulation process varies based on a number of factors, including the extent of the supporting information required, the nature and extent of review by the USDA, including the type and scope of the environmental review conducted, and the number and types of public comments received. For example, after the initial filing of a petition for deregulation, the USDA may ask for additional data, including data on new areas of inquiry that might require us to conduct additional field tests or analyses, which may cause delays in the deregulation process. Deregulation of a product is not a guaranteed outcome. The USDA or other regulators may also impose costly monitoring requirements on the planting of our biotechnology products.

In Brazil, the commercialization of biotechnology products is regulated by the National Technical Commission of Biosafety, Comissão Técnica Nacional de Biossegurança, or CTNBio under the Ministry of Science and Technology. The approval process involves data collection and analysis, environmental impact assessments and public hearings on certain products. We are not currently subject to CTNBio oversight as our current product offerings in Brazil do not include biotechnology products. However, we do anticipate introducing biotechnology products in Brazil in the future. At such time, we will be subject to the approval processes dictated by CTNBio.

We have not yet applied for deregulation for any of our biotech traits. Any delays in obtaining or failure to obtain deregulation or regulatory approval, as the case may be, for any of the biotechnology products in our pipeline could delay or prevent the commercialization of our products. Regulatory authorities can block the sale or import of our products or can impose conditions that delay production and sale of our products, or that make the sale of our products technically or commercially unfeasible.

Before the USDA will review and deregulate our products, the USDA requires us to obtain permits to plant and test our biotechnology products, and there are similar permitting requirements in Brazil. In determining whether to grant a field test permit and what conditions to impose, regulators consider any significant impacts that field tests may have on the environment and on endangered or threatened species. In the United States, the permitting process for the initial field tests typically ranges from two to four months, but this time period can be significantly longer for novel products or

circumstances. While to date our permits for our field trial locations have been obtained with minimal delays, there can be no assurance that we will not encounter material delays in the future as we test new biotechnology products. If we are not able to obtain the necessary field test permits or if there are significant delays in the permitting process, the commercialization of our products may be delayed or prevented and our business and results of operations may be adversely affected. A prolonged delay in the regulatory process could adversely affect our ability to generate product revenues.

Ethical, legal and social concerns about biotechnology products could limit or prevent the use of our products and technologies, which could negatively affect our ability to generate revenue.

Some of our products in development contain biotech traits. The commercial success of our products that contain biotech traits may be adversely affected by claims that biotechnology plant products are unsafe for consumption or use, pose risks of damage to the environment and create legal, social and ethical dilemmas. For example, some countries, primarily in the European Union, have instituted a de facto moratorium on the planting of some genetically engineered seeds. The import of biomass grown from genetically engineered seeds may also be regulated by the European Union. While we are not currently selling seeds containing biotech traits into the European Union, we plan to do so in the future. In addition, Brazil s biosafety law prohibits the use, sale, registration, patenting and licensing of genetic use restriction technologies, which are a class of genetic engineering technologies that allow companies to introduce seeds whose sterile offspring cannot reproduce, preventing farmers from re-planting seeds from their harvest. While our current sweet sorghum products are not subject to this restriction, we may in the future introduce biotech traits that may be subject to such regulation. If we are not able to overcome these concerns and comply with these regulations, our products may not achieve market acceptance. Any of the risks discussed below could result in expenses, delays or other impediments to our development programs or the market acceptance and commercialization of our products that contain biotech traits. Our ability to develop and commercialize one or more of our technologies and products could be limited or prevented by the following factors:

- Public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and biotechnology products, which could influence public acceptance of our technologies and products;

- Public attitudes regarding, and potential changes to laws governing, ownership of genetic material, which could weaken our intellectual property rights with respect to our genetic material and discourage collaborators from supporting, developing or commercializing our products and technologies;

- Governmental reaction to negative publicity concerning genetically engineered plants, which could result in greater government regulation of genetic research and derivative products; and

- Failure to maintain or secure consumer confidence in, or to maintain or receive governmental approvals for, our products.

We cannot predict whether or when any jurisdiction will change its regulations with respect to biotechnology products. Problems with any product could lead to increased scrutiny or regulation for our products. Limitations on the development of biotechnology products could be imposed that could delay, prevent or make more costly the development of such products, which would negatively affect our ability to commercialize products using our traits.

Advocacy groups have engaged in publicity campaigns and filed lawsuits in various countries against companies and regulatory authorities, seeking to halt biotechnology approval activities or influence public opinion against genetically engineered products. On occasion, there has been vandalism and destruction of property of companies in the biotechnology industry.

Table of Contents

Our non-biotechnology products, the products of third parties or the environment may be negatively affected by the unintended appearance of our transgenes.

The development and commercial success of our non-biotechnology products may be delayed or negatively affected because of adverse public perception or regulatory concerns about the safety of our products and the potential effects of these products on other plants, animals, human health and the environment. The potential for unintended but unavoidable trace amounts, sometimes called adventitious presence , of transgenes in conventional seed, or in the grain or products produced from conventional or organic crops, is another factor that could affect general public acceptance of these traits. For example, our current sweet sorghum, high biomass sorghum and switchgrass products have been produced exclusively through conventional breeding and have not been genetically engineered by us. It is possible, however, that trace amounts of our transgenes are nevertheless in our conventional products. In addition, trace amounts of transgenes may unintentionally be found outside our containment area in the products of third parties, which may result in negative publicity and claims of liability brought by such third parties against us. Furthermore, in the event of an unintended dissemination of our genetically engineered materials to the environment, we could be subject to claims by multiple parties, including environmental advocacy groups, as well as governmental actions such as mandated crop destruction, product recalls or additional stewardship practices and environmental cleanup or monitoring.

Ethical, legal and social concerns about land use could limit or prevent the widespread adoption of our products, which could negatively affect our ability to generate revenue.

The commercial success of our products also may be adversely affected by claims that the production of bioenergy displaces land that would otherwise be used for food and feed production, leading to shortages and higher prices for food and feed commodities. These claims are based, in part, on the assumption that there is a scarcity of available land for crop production, productivity is uniform across the globe and that productivity will remain flat over time. While these assumptions are not universally accepted, their acceptance by legislatures or advocacy groups could harm our ability to sell our products. The increased use of land for bioenergy production may also lead to claims that the increased planting of other crops in other regions may cause land clearing, such as in the Brazilian rainforest, and subsequent greenhouse gas releases a theory known as indirect land use change. This theory proposes that such indirect effects, and their related greenhouse gas emissions should be applied to the emissions life cycle of bioenergy feedstocks, including dedicated energy crops. The perception that our products are resulting in higher greenhouse gas emissions could disadvantage our products related to other potential energy sources, or make it more difficult for our products to meet regulatory requirements for reduced emissions.

Development and commercialization, if any, of our products may incur scrutiny under the Convention on Biological Diversity Treaty.

The Convention on Biological Diversity, or the Convention, is an international treaty that was adopted at the Earth Summit in Rio de Janeiro, Brazil in 1992. The treaty provides that if a company uses genetic resources, such as an indigenous plant, from a participating country to develop a product, then such company must obtain the prior informed consent of the participating country and owes fair and equitable compensation to such country. Although the United States is not a participating country, most countries where we currently obtain or may obtain germplasm in the future, have ratified the treaty and are currently participants in the Convention. We may fall under scrutiny of the Convention with respect to the development or commercialization of any of our products derived from the germplasm originating from any of the countries that are participants in the Convention. There can be no assurances that the government of a participating country will not assert that it is entitled to fair and equitable compensation from us. Such compensation, if demanded, may make commercialization of our products not feasible.

Table of Contents

Our business is affected by changes in general economic conditions and a prolonged downturn could affect the demand for our products and our ability to fund our working capital.

Economic conditions in the United States, Brazil and Europe could adversely affect our efforts to achieve profitability. The purchasing decisions of utilities, mill operators, growers and other potential customers, and their ability to timely pay for our products, are impacted by their economic health. We may have to regularly extend credit to our customers to enable them to acquire seeds at the beginning of the growing season on terms that permit payment following the sales of their products. These credit practices may expose us to credit risk of utilities, mill operators and growers and other potential customers, and combined with the seasonality of our sales, make us dependent on our ability to fund our working capital requirements through other means. If the current difficult economic conditions continue or worsen, the economic health of our customers and potential customers could further deteriorate.

Our activities are currently conducted at limited number of locations, which makes us susceptible to damage or business disruptions caused by natural disasters.

Our headquarters and certain research and development operations are located at a single facility in Thousand Oaks, California. Our main breeding station is located at our College Station Research Center near College Station, Texas, with additional breeding and agronomy trials situated in select locations across the world, including the Americas, Europe and Asia. Our seed production takes place primarily in the United States and Puerto Rico, as well as Argentina, Bolivia and Brazil. Warehousing for seed storage is located primarily in Texas and the state of São Paulo, Brazil. We take precautions to safeguard our facilities, including insurance, health and safety protocols, and off-site storage of critical research results and computer data. However, a natural disaster, such as a hurricane, fire, flood, tornado or earthquake, could cause substantial delays in our operations, damage or destroy our equipment, inventory or development projects, and cause us to incur additional expenses. The insurance we maintain against natural disasters may not be adequate to cover our losses in any particular case.

We rely on the experience and expertise of our senior management team and other key personnel.

We depend on the experience and expertise of our senior management team and other key personnel, many of whom have been with our company for more than a decade. Our senior management team and key personnel bring extensive experience in the seed industry, agricultural biotechnology and plant genetics. The loss or unavailability of key members of our senior management team or other key personnel could impact the execution of our business strategy and make it more difficult to maintain and expand our important relationships in the bioenergy industry. The replacement of key members of our senior management team or other key personnel likely would involve significant time and costs.

If we are unable to recruit or retain qualified personnel, particularly in Brazil, our development and commercialization efforts may be significantly delayed.

Competition for qualified personnel is intense among agricultural biotechnology and other technology-based businesses, particularly for personnel with the appropriate level of education, experience and training. We may not be able to recruit and retain such personnel at compensation levels consistent with our existing compensation structure. The continued appreciation of the Brazilian Real against the U.S. dollar will make it more difficult for us to meet compensation expectations of Brazilian personnel. In addition, in making employment decisions, job candidates often consider the value of equity they may receive in connection with their employment. Therefore, significant volatility in the price of our stock after this offering may adversely affect our ability to attract or retain personnel. Competition for qualified personnel in Brazil is particularly intense due to the importance of the

agricultural industry in Brazil and the recent increased activity levels of U.S. agricultural or renewable energy companies in Brazil, including Amyris Biotechnologies, Inc. and Monsanto Company.

If we lose qualified personnel or are unable to attract, retain and integrate additional highly trained and motivated personnel, particularly for our research and development activities, our ability to advance our product development and continue our commercialization efforts may be delayed or unsuccessful.

Unexpected fluctuations in our quarterly operating results may cause our stock price to fluctuate widely.

A large proportion of our costs are fixed, due in part to our significant research and development and production costs and general and administrative expenses. Thus, even a small decline in revenue could disproportionately affect our quarterly operating results and could cause such results to differ materially from expectations. If this occurs, we may fail to meet analyst and investor expectations, which could cause our stock price to decline. Other factors that could affect our quarterly operating results or cause them to differ materially from expectations include:

- demand for and acceptance of our products;
- weather conditions or the occurrence of natural disasters;
- changes in government regulations and incentives;
- competitive pressures resulting in lower selling prices; and
- unanticipated delays or problems in the introduction of new products.

We may require additional financing in the future and may not be able to obtain such financing on favorable terms, if at all, which could force us to delay, reduce or eliminate our research and development activities.

We will continue to need capital to fund our research and development projects and to provide working capital to fund other aspects of our business. If our capital resources are insufficient to meet our capital requirements, we will have to raise additional funds. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. If we are able to raise additional debt financing, we may be subject to restrictive covenants that limit our operating flexibility. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and continue to incur losses, our ability to fund our operations, take advantage of strategic opportunities, develop and commercialize products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate research and development programs or the commercialization of products, curtail operations or obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights, or grant licenses to our technology on terms that are not favorable to us. If adequate funds are not available, we will not be able to successfully execute on our business strategy or continue our business.

We expect to derive a portion of our revenues from markets outside the United States, including Brazil, which will subject us to additional business risks.

Changes in exchange rates between the U.S. dollar and other currencies will result in increases or decreases in our costs and earnings, and also may affect the book value of our assets outside the United States. To date, most of our contracts have been entered into in the United States and accordingly have been denominated in U.S. dollars. Going forward we anticipate that our sales will be denominated in the local currency of the country in which the sale occurs. In addition, most of our operating expenses to date have been denominated in the currencies of the countries in which

our operations are located, primarily the United States and Brazil. As a result, while our revenue and

operating expenses are mostly hedged on a transactional basis, the translation of our operating results into U.S. dollars may be adversely impacted by strengthening U.S. currency.

In addition, international operations are subject to a number of other risks and uncertainties, including:

- changes in political, social or economic conditions;
- tariffs, trade protection measures and trade agreements;
- import or export licensing requirements;
- changes in regulatory requirements;
- reduced protection for intellectual property rights in some countries;
- economic downturns, civil disturbances or political instability;
- difficulties and costs of staffing and managing international operations;
- fluctuations in currency exchange rights;
- land reform movements;
- price controls;
- nationalization; and
- potentially burdensome taxation.

In the past, the Brazilian economy was characterized by frequent and occasionally extensive intervention by the Brazilian government and unstable economic cycles. The Brazilian government has changed in the past, and may change in the future, monetary, taxation, credit, tariff and other policies to influence the course of Brazil s economy. For example, the government s actions to control inflation have at times involved setting wage and price controls, adjusting interest rates, imposing taxes and exchange controls and limiting imports into Brazil. The Brazilian government has also in the past placed significant restrictions on the ability of foreign persons and companies to acquire property in Brazil. We have no control over, and cannot predict, what policies or actions the Brazilian government may take in the future. Any of these actions could adversely affect our international operations and, consequently, our results of operations.

Our ability to use our net operating loss carry forwards to offset future taxable income may be subject to certain limitations.

As of May 31, 2011, we had approximately $168.3 million of federal and $148.1 million of state operating loss carry-forwards available to offset future taxable income, which expire in varying amounts beginning in 2018 for federal and 2016 for state purposes if unused. It is possible that we will not generate taxable income in time to use these loss carry-forwards before their expiration. In addition, under Section 382 of the Internal Revenue Code, or Code, a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change net operating loss carry forwards, or NOLs, to offset future taxable income. We have not completed a Section 382 analysis to determine if an ownership change has occurred. Until such analysis is completed, we cannot be sure that

the full amount of the existing NOLs will be available to us, even if we do generate taxable income before their expiration.

We use hazardous materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.

Our research and development processes involve the controlled use of hazardous materials, including chemical and biological materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of these materials. Our operations also produce

hazardous waste. We cannot eliminate entirely the risk of accidental contamination or discharge and any resultant injury from these materials. We may face liability for any injury or contamination that results from our use or the use by third parties of these materials, which depending on the severity of the injury or contamination could be significant. In addition, compliance with applicable environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development or production efforts.

We may suffer liabilities relating soil and/or groundwater contamination at current and former properties and at third-party sites to which we sent hazardous wastes for disposal.

We are exposed to environmental risks associated with the ownership and operation of real property and the disposal of hazardous wastes. Environmental laws can require current owners and operators of real property to remediate soil and groundwater contamination even if such contamination was caused by another party, such as a former owner or operator. These laws can also require companies to clean up real property that they formerly owned or operated if releases of hazardous materials or wastes occurred during the period of their ownership or operation. Moreover, in certain circumstances these laws require companies to clean up third-party sites to which hazardous wastes were sent for disposal, notwithstanding that the original disposal activity accorded with all regulatory requirements. The discovery of previously unknown contamination at our current or former facilities, or at third-party sites to which we sent hazardous wastes for disposal, could require us to conduct or fund expensive cleanup efforts, which could materially and adversely affect our operating results.

We may be sued for product liability and if such lawsuits were determined adversely, we could be subject to substantial damages.

We may be held liable if any product we develop, or any product that uses or incorporates, any of our technologies, causes injury or is found otherwise unsuitable during product testing, production, marketing or sale. For example, the detection of unintended biotechnology material in pre-commercial seed, commercial seed varieties or the crops and products produced may result in the inability to market the crops grown, resulting in potential liability for us as the seed producer or technology provider. In the event this was to occur, we could be subject to claims by multiple parties based not only on the cost of our products but also on their lost profits and business opportunities. In addition, the detection of unintended biotechnology material in our seeds or in the environment could result in governmental actions such as mandated crop destruction, product recalls or environmental cleanup or monitoring. Concerns about seed quality related to biotechnology could also lead to additional regulations being imposed on our business, such as regulations related to testing procedures, mandatory governmental reviews of biotechnology advances, or the integrity of the food supply chain from the farm to the finished product.

We currently have limited product liability insurance coverage and additional insurance may be prohibitively expensive, or may not fully cover potential liabilities. If we are unable to obtain sufficient insurance coverage at an acceptable cost or otherwise or if the amount of any claim against us exceeds the coverage under our policy, we may face significant expenses.

Risks Related to our Intellectual Property

Our inability to adequately protect our proprietary technologies and products could harm our competitive position.

Our success depends in part on our ability to obtain patents and maintain adequate protection of our other intellectual property for our technologies and products in the United States and other countries. The laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting their proprietary rights in these foreign countries. These problems

can be caused by, for

example, a lack of rules and methods for defending intellectual property rights. Many countries, including Brazil, do not allow patenting of plants, whether genetically engineered or traditionally bred. Accordingly, our proprietary position for our products in countries such as Brazil relies to a large extent on Plant Variety Protection certificates. This type of protection is more limited than patents in the United States. As a result, Plant Variety Protection certificates may provide only a limited competitive advantage in the marketplace. In many countries, including Brazil, patentability criteria are generally more restrictive and our filings more limited than in the United States, weakening our prospects of obtaining an equal scope of corresponding patent protection. Because Brazil is our initial target market, the lack of more robust patent protection for plant varieties in that country could expose us to the risk of misappropriation of our intellectual property. In addition, the legal systems of certain other countries do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Proceedings to enforce our patents and other proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to enforce our intellectual property rights in such countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop. Even if we enforce our rights aggressively, injunctions, fines and other penalties may be insufficient to deter violations of our intellectual property rights. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property.

The patent positions of biotechnology companies, including our patent position, are generally uncertain and involve complex legal and factual questions. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies are covered by valid and enforceable patents. We will apply for patents covering both our technologies and products as we deem appropriate. However, we cannot assure you that any pending or future patent applications held by us will result in an issued patent, or that if patents are issued to us, such patents will provide meaningful protection against competitors or against competitive technologies. Our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products. Furthermore, others may independently develop similar or alternative technologies or design around our patented technologies. In addition, our patents may be challenged, invalidated or fail to provide us with any competitive advantages.

The value of our intellectual property could diminish due to technological developments or challenges by competitors, making our products less competitive.

Our intellectual property rights are important to the operation of our business and to our early mover advantage in crop biotechnology. We rely on a combination of patents, plant variety protection, plant breeders rights, copyrights, trademarks, trade secret laws, confidentiality provisions, and licensing arrangements to establish and protect our intellectual property. However, the importance of technology development and intellectual property protection in the agricultural industry increases the risk that technological advances by others could render our products less competitive. Our business could be negatively affected by any of the following:

- our issued patents, Plant Variety Protection certificates, plant breeders rights and trademark registrations may be successfully challenged by our competitors;
- our pending patent, Plant Variety Protection certificates, plant breeders rights and trademark registration applications may not be allowed or may be challenged successfully by our competitors;
- our products may inadvertently use the technology of others and, therefore, require us to obtain intellectual property licenses from other parties in order for us to sell our products;

Table of Contents

- we may be unable to obtain intellectual property licenses that are necessary or useful to our business on favorable terms, or at all;
- new technology that is independently developed by others may supersede our technology and make our products less desirable or more costly in the marketplace;
- competitors may design around our patented technologies or may reverse engineer our trade secret technologies;
- the scope of our plant variety protection certificates in Brazil is narrow and subject to a breeder s exemption, which allows breeders to use our varieties in a breeding program; as a result, these certificates may not provide a sustained competitive advantage in the marketplace; and
- the eventual scope of our patents in Brazil is uncertain due to restrictions on plant claims under Brazilian patent laws and our limited filings in Brazil, and may not be sufficient to deter competition.

While we have exclusive rights to certain proprietary lines of switchgrass, miscanthus, high biomass sorghum and sweet sorghum through our collaborations with leading institutions, other parties may have access to certain lines of switchgrass, miscanthus, high biomass sorghum or sweet sorghum developed or released by such institutions, proprietary lines of such crops from other sources, and publicly available lines of such crops, from which they may develop products that compete with our products.

Litigation or other proceedings or third party claims of infringement could require us to spend time and money and could severely disrupt our business.

Our commercial success depends on not infringing patents or proprietary rights of third parties, nor breaching any licenses or other agreements that we have entered into with regard to our technologies, products and business. The patent positions of biotechnology and seed companies involve complex legal and factual questions and, therefore, enforceability cannot be predicted with certainty. Patents, if issued, may be challenged, invalidated or circumvented. We cannot be sure that relevant patents have not been issued that could block our ability to obtain patents or to operate as we would like without infringing patents or proprietary rights of other parties.

The biotechnology and seed industries have a history of litigation regarding patents and other intellectual property rights. Many biotechnology companies have employed intellectual property litigation as a way to gain a competitive advantage. We cannot assure you that we will not be sued by third parties for infringement of patents they may have relating to biotechnological traits or technologies in various crops.

Should any of our competitors have filed patent applications or obtain patents that claim inventions also claimed by us, we may have to participate in an interference proceeding declared by the U.S. Patent and Trademark Office to determine priority of invention and, thus, the right to a patent for these inventions in the United States. Such a proceeding could result in substantial cost to us even if the outcome is favorable. Even if successful on priority grounds, an interference proceeding may result in loss of claims based on patentability grounds raised in the proceeding. If we become involved in litigation or interference proceedings declared by the U.S. Patent and Trademark Office to defend our intellectual property rights or as a result of alleged infringement of the rights of others, or oppositions or other intellectual property proceedings outside of the United States, we might have to spend significant amounts of money to resolve such matters. We are aware of a significant number of pending patent applications relating to biotechnological traits or technologies in various crops filed by third parties.

Even if we prevail, litigation, interference proceedings or opposition proceedings could result in significant legal fees and other expenses, could divert our management time and efforts and could

severely disrupt our business. Uncertainties resulting from initiation and continuation of any patent or related litigation could harm our ability to compete.

An adverse ruling arising out of any intellectual property dispute could undercut or minimize our intellectual property position. An adverse ruling that our operations violate a third party s intellectual property rights could also subject us to significant liability for damages, prevent us from using processes or products, or require us to license disputed rights from third parties. Claims of intellectual property infringement against us may require us to enter into costly royalty or license agreements, subject us to substantial damage claims or cause us to stop using such technology absent a license agreement. Although patent and intellectual property disputes in the biotechnology area are often settled through licensing or similar arrangements, costs associated with these arrangements may be substantial and could include ongoing royalties. Furthermore, necessary licenses may not be available to us on satisfactory terms, if at all.

Third parties may infringe on our intellectual property rights, and we may expend significant resources enforcing our rights or be competitively disadvantaged.

If we fail to protect our intellectual property rights from infringement by third parties, our competitive position could suffer, which could make it more difficult to grow our business. We may not be able to detect or prevent infringement of our intellectual property or may lose our competitive position in the market before we do so.

Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information.

In order to protect our proprietary technology and processes, we also rely in part on trade secret protection for our confidential and proprietary information. For example, we consider our genetic transformation methods, markers for marker-assisted breeding and sequence databases as trade secrets. We have taken security measures to protect our trade secrets and proprietary information. These measures may not provide adequate protection for our trade secrets or other proprietary information. We also seek to protect our proprietary information by entering into confidentiality agreements with employees, with potential and actual collaborators and licensees and with consultants and other advisors. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently develop substantially equivalent proprietary information or techniques and trade secret laws do not allow us to protect against such independent development. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We have received funding from U.S. government agencies, which could negatively affect our intellectual property rights.

Some of our research and development activities have been funded by grants from U.S. government agencies. For example, a portion of our research and development used to develop our nitrogen use efficiency trait was funded by a U.S. Department of Energy ARPA-E grant. When new technologies are developed with U.S. government funding, the government obtains certain rights in any resulting patents and technical data, generally including, at a minimum, a non-exclusive, nontransferable license authorizing the government to use the invention or technical data for non-commercial purposes. U.S. government funding must be disclosed in any resulting patent applications, and our rights in such inventions will normally be subject to government license rights, periodic progress reporting, foreign manufacturing restrictions and march-in rights.

March-in rights refer to the right of the U.S. government, under certain limited circumstances, to require us to grant a license to technology developed under a government grant to a responsible

Table of Contents

applicant, or, if we refuse, to grant such a license itself. March-in rights can be triggered if the government determines that we have failed, within a reasonable time, to take effective steps to achieve practical application of a technology or, if action is necessary to alleviate health or safety needs, to meet requirements for public use specified by federal regulations or to give preference to U.S. industry. We may also enter into collaborations with entities outside the United States that receive government funding or, in the future, we may apply for government funding from other countries. Regulations in these countries may provide for similar march-in rights. Any government s rights in our intellectual property may lessen its commercial value, which could adversely affect our business.

Risks Related to this Offering and Ownership of our Common Stock

No public market for our common stock currently exists and an active trading market may not develop or be sustained following this offering.

Prior to this offering, there has not been a public market for our common stock. An active and liquid trading market for our common stock may not develop following this offering or if it does develop, it may not be sustained. The lack of a liquid trading market may make it more difficult for you to sell your shares when you wish to sell them or at a price that you consider attractive. The lack of a liquid trading market may also reduce the fair market value of your shares. Also, an inactive trading market for our shares may negatively affect our ability to raise equity capital in the future by selling shares in a public offering or make it more difficult to acquire other companies by using our common stock as consideration.

The price of our common stock may be volatile and you may not be able to sell your shares at or above the initial public offering price.

The initial public offering price for our shares will be determined by negotiations between us and representatives of the underwriters and may not be indicative of prices that will prevail in the stock market following this offering. The market price for our common stock may decline below the initial public offering price and you may not be able to sell your shares at or above the initial public offering price. Our stock price may be subject to wide fluctuations in response to the factors listed in this section and others beyond our control, including:

- actual or projected fluctuations in our financial condition and operating results;
- our cash and cash equivalents position;
- actual or projected changes in our growth rate relative to our competitors;
- actual or projected fluctuations in our competitors financial condition or operating results;
- announcements of technological innovations by us, our collaborators or our competitors;
- announcements by us, our collaborators or competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- the entry into, modification or termination of collaborative arrangements;
- changes in our customer base;
- additions or departures of key management or other key personnel;

competition from existing products or new products that may emerge;

issuances of new or updated research reports by securities or industry analysts;

fluctuations in the share prices of companies perceived by investors to be comparable to us;

Table of Contents

disputes or other developments related to proprietary rights, including patents, litigation matters, the countries in which we source our germplasm, and our ability to obtain patent protection for our technologies;

disputes or other developments relating to genetically engineered products, including claims of adventitious presence or environmental harm;

changes in existing laws, regulations and policies applicable to our business and products, including the United States Renewable Fuel Standard program, and the adoption or failure to adopt additional carbon emissions regulations;

announcements or the expectation of raising additional financing;

sales of our common stock by us, our insiders or other stockholders;

general market conditions in our industry; and

general economic conditions, including the impact of the recent financial crisis.

The stock markets in general, and the market for renewable energy stocks in particular, have experienced extreme volatility that have affected and continue to affect the trading prices of equity securities of many companies. These market fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of our common stock. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management s attention from other business concerns.

A significant portion of our total outstanding shares of common stock is restricted from immediate resale, but may be sold into the public market in the near future. If there are substantial sales of our common stock, or the perception that these sales could occur in the future, the trading price of our common stock could decline.

The trading price of our common stock could decline as a result of sales of a large number of shares of our common stock in the public market after this offering. The perception that these sales could occur may also depress the trading price of our common stock. Based on the number of shares outstanding as of , 2011, we will have shares of common stock outstanding after the completion of this offering. Of these shares, the common stock sold in this offering will be freely tradable in the United States, except for any shares purchased by our affiliates as defined in Rule 144 under the Securities Act of 1933, as amended, or the Securities Act.

The holders of shares of common stock have agreed with the underwriters, subject to certain exceptions discussed under the section entitled Underwriting , not to offer, sell, pledge or otherwise dispose of any of their common stock during the period beginning on the date of this prospectus and continuing through the date 180 days after the date of this prospectus (subject to extension under certain circumstances), except with the prior written consent of Goldman, Sachs & Co. and us.

However, Goldman, Sachs & Co. can waive the provisions of these lock-up agreements with our consent and allow these stockholders to sell their shares at any time. After the expiration of the 180-day restricted period (subject to extension under certain circumstances), these shares may be sold in the public market in the United States, subject to prior registration in the United States, if required, or reliance upon an exemption from U.S. registration under

Rule 144 or Rule 701 under the Securities Act. See Shares Eligible for Future Sale .

Table of Contents

Number of Shares and % of Total Outstanding		Date Available for Sale into Public Market
or	%	Immediately after this offering.
or	%	90 days after the date of this prospectus.
or	%	180 days after the date of this prospectus.
or	%	From time to time after the date 180 days after the date of this prospectus.

In addition, as of , 2011, there were shares of common stock issuable upon the exercise of outstanding options or warrants that will become eligible for sale in the public market to the extent permitted by applicable vesting requirements, the lock-up agreements discussed in Underwriting and Rules 144 and 701 of the Securities Act.

Holders owning an aggregate of shares of common stock will be entitled, under contracts providing for registration rights, to require us to register shares of our common stock owned by them for public sale in the United States, subject to the restrictions of Rule 144. See Description of Capital Stock Registration Rights . In addition, we intend to file a registration statement to register approximately shares previously issued or reserved for future issuance under our equity compensation plans and agreements. Upon effectiveness of such registration statement, subject to the satisfaction of applicable exercise periods and, in certain cases, the lock-up agreements discussed in Underwriting , the shares of common stock issued upon exercise of outstanding options will be available for immediate resale in the United States in the open market.

If securities or industry analysts do not publish research or reports about our business or our industry, or publish negative reports about our business or our industry, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish about us, our business, our industry or our competitors. If one or more of the analysts who cover us change their recommendation regarding our stock adversely, change their opinion of the prospects for our company in a negative manner, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price will be substantially higher than the net tangible book value per share of our outstanding common stock immediately after this offering. Therefore, if you purchase shares of our common stock in this offering, you will experience immediate and substantial dilution of approximately $ per share in the price you pay for shares of our common stock as compared to its net tangible book value, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus. If outstanding options and the outstanding warrants that do not expire upon completion of this offering are exercised or if more shares are issued upon conversion of the Convertible Notes than we have assumed, you will experience further dilution. In addition, following this offering, purchasers in this offering will have contributed % of the total consideration paid by our stockholders to purchase shares of common stock, in exchange for acquiring approximately % of our total outstanding shares as of , 2011, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus. To the extent that outstanding options and warrants to purchase shares of common stock are exercised or if more shares are issued upon conversion of the

Table of Contents

Convertible Notes than we have assumed, there will be further dilution. For further information on this calculation, see the Dilution section of this prospectus.

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to comply with the laws and regulations affecting public companies.

We have never operated as a public company. As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company, including costs associated with public company reporting and corporate governance requirements, in order to comply with the rules and regulations imposed by the Sarbanes-Oxley Act, as well as rules implemented by the SEC and the Nasdaq Global Market. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives and our legal and accounting compliance costs will increase.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls over financial reporting and disclosure controls and procedures. In particular, commencing in 2012, we must perform system and process evaluations and testing of our internal control over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal controls over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal control over financial reporting that are deemed to be material weaknesses. Our compliance with Section 404 will require that we incur substantial accounting expense and management time on compliance-related issues. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, we could lose investor confidence in the accuracy and completeness of our financial reports, which could cause our stock price to decline.

Anti-takeover provisions in our certificate of incorporation and bylaws and under Delaware law could delay or prevent an acquisition of our company, even if the acquisition may be beneficial to our stockholders.

Provisions in our amended and restated certificate of incorporation and our bylaws, both of which will become effective upon the completion of this offering, may delay or prevent an acquisition of our company deemed undesirable by our board of directors. Among other things, our amended and restated certificate of incorporation and bylaws will (i) provide for a board of directors that is divided into three classes, with staggered three-year terms, (ii) provide that all stockholder action must be effected at a duly called meeting of the stockholders and not by a consent in writing, (iii) provide that only our board of directors, the chairman of the board of directors, our chief executive officer (or president in the absence of a chief executive officer) may call a special meeting of the stockholders, (iv) provide for the ability of our board of directors to issue undesignated preferred stock, (v) require that any amendment to the amended and restated certificate of incorporation be approved by a 662/3 stockholder vote, and (vi) establish advance notice requirements for nominations for election to our board of directors and for proposing matters that can be acted upon at stockholders meetings. These provisions may also frustrate or prevent any attempt by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors who are responsible for appointing the members of our management team. As a Delaware corporation, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which prohibits, with some exceptions, stockholders owning in excess of 15% of our outstanding stock from merging or combining with us without board of directors or stockholder approval. Although we believe these provisions together provide for an opportunity to receive higher bids by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer to acquire

Table of Contents

our company may be considered beneficial by some stockholders and could limit the opportunity for our stockholders to receive a premium for their shares.

Concentration of ownership among our existing officers, directors and principal stockholders may prevent other stockholders from influencing significant corporate decisions.

Based on the number of shares outstanding as of August 31, 2011, when this offering is completed, our officers, directors and existing stockholders who hold at least 5% of our stock will together beneficially own approximately % of our outstanding common stock, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, and if the underwriters option to purchase additional shares is exercised in full, such persons will beneficially own, in the aggregate, approximately % of our outstanding common stock. If these officers, directors and principal stockholders or a group of our principal stockholders act together, they will be able to exert a significant degree of influence over our management and affairs and exercise a significant level of control over all matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. This concentration of ownership may have the effect of delaying or preventing a change in control of our company or changes in management and will make the approval of certain transactions difficult or impossible without the support of these stockholders.

After the completion of this offering, we do not expect to declare any dividends in the foreseeable future.

After the completion of this offering, we do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. Our existing loan agreement prohibits us from paying dividends on our capital stock. Consequently, investors may need to rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment. Investors seeking cash dividends should not purchase our common stock.

Our management may not apply the net proceeds from this offering in ways that increase the value of your investment.

We currently intend to use the net proceeds from this offering as described in the Use of Proceeds section of this prospectus. However, our management may not apply the net proceeds in ways that ultimately increase the value of your investment. You will not have the opportunity to influence our decisions on how to use the net proceeds from this offering.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled Prospectus Summary , Risk Factors , Use of Proceeds , Management s Discussion and Analysis of Financial Condition and Results of Operations , and Business , contains forward-looking statements. All statements, other than statements of historical facts contained in this prospectus, including statements regarding our efforts to develop and commercialize our products, our short-term and long-term business strategies, market and industry expectations and future results of operations and financial position, are forward-looking statements. In many cases, you can identify forward-looking statements by terms such as may , will , should , expect , plan , anticipate , could , intend , target , project , contemplate , believe , estimate , potential , continue words.

We based these forward-looking statements largely on our current expectations and projections about future events or trends that we believe may affect our business and financial performance. These forward-looking statements involve known and unknown risks and uncertainties that may cause our actual results, performance or achievements to materially differ from any future results, performance or achievements expressed or implied by these forward-looking statements. We have described in the Risk Factors section and elsewhere in this prospectus the material risks and uncertainties that we believe could cause actual results to differ from these forward-looking statements. Because forward-looking statements are inherently subject to risks and uncertainties, some of which we cannot predict or quantify, you should not rely on these forward-looking statements as guarantees of future results, performance or achievements.

The forward looking statements in this prospectus represent our views as of the date of this prospectus. We undertake no obligation to update publicly, except to the extent required by law, any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

MARKET AND INDUSTRY DATA

Market data and certain industry data and forecasts included in this prospectus were obtained from internal company surveys, market research, consultant surveys, publicly available information, governmental agency reports and industry publications and surveys, including reports by the following authorities:

The U.S. Department of Energy;

The U.S. Energy Information Administration;

The International Energy Agency;

The International Service for the Acquisition of Agri-Biotech Applications;

The Renewable Fuels Association; and

Brazilian Sugarcane Industry Association.

This information involves a number of assumptions and limitations. These industry and government publications, surveys and forecasts generally indicate that the information has been obtained from sources believed to be reliable, but that the accuracy and completeness of such information is not guaranteed. Although we believe the third party market and industry data and forecasts included in the prospectus are generally reliable, we have not independently

verified any of the data from third party sources nor have we ascertained the underlying economic assumptions relied upon therein. Similarly, internally generated industry forecasts, which we believe to be reliable based on our management s knowledge of the industry, have not been independently verified by a third party. We are responsible for all of the disclosure in this prospectus.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $ million, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease the net proceeds from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional shares in full, we estimate that our net proceeds will be approximately $ million, assuming an initial public offering price of $ per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for the following:

Research and development	$
Capital expenditures primarily relating to breeding stations, production facilities, systems and agricultural equipment	$
Commercial activities, including increasing the number of sales and marketing personnel, expanding our advertising and branding efforts and pursuing government approvals	$
Working capital and other general corporate purposes, including seed production efforts and operating as a public company	$

In addition, we may also use a portion of the net proceeds to expand our business through acquisitions of other companies, assets or technologies, which we expect would reduce the amount of net proceeds available for working capital and other general corporate purposes. However, we do not have any present understandings, commitments or agreements to enter into any potential agreements for any acquisitions. Pending the uses of the net proceeds of this offering, as described above, we intend to invest the net proceeds in short-term investment-grade, interest-bearing securities.

Some of the other principal purposes of this offering are to create a public market for our common stock, increase our visibility in the marketplace and provide liquidity to existing stockholders. Creating a public market for our common stock will facilitate our ability to raise additional equity in the future and to use our common stock as a means of attracting and retaining key employees and as consideration for acquisitions.

Table of Contents

DIVIDEND POLICY

We have never declared or paid cash dividends on our common or convertible preferred stock. We currently intend to retain any future earnings and do not expect to declare or pay any cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors considers relevant. Our existing loan agreement prohibits us from paying dividends on our capital stock.

Table of Contents

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of May 31, 2011:

on an actual basis;

on a pro forma basis to give effect to:

(1) the filing of our amended and restated certificate of incorporation immediately prior to the completion of this offering;

(2) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 46,059,819 shares of common stock immediately prior to the completion of this offering;

(3) the sale of $11.4 million aggregate principal amount of Convertible Notes and the application of the net proceeds therefrom;

(4) the issuance of additional shares of common stock pursuant to the automatic conversion of the Convertible Notes upon the consummation of this offering, as described in Certain Relationships and Related Party Transactions, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus;

(5) the issuance of shares of common stock immediately prior to the completion of this offering upon the net exercise of warrants outstanding to purchase shares of common stock, which would otherwise expire upon the completion of this offering, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus; and

(6) the reclassification of the convertible preferred stock warrant liability to stockholders (deficit) equity upon the completion of this offering.

on a pro forma as adjusted basis to give effect to the pro forma adjustments and the sale of shares of common stock by us in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the accompanying notes appearing elsewhere in this prospectus.

Table of Contents

	As of May 31, 2011		
	Actual	Pro Forma	Pro Forma as Adjusted(1)
	(Unaudited)		
	(In thousands, except per share data)		
Cash and cash equivalents	$ 17,717		$
Long-term debt, less current portion	$ 2,552	$	$
Preferred stock warrant liability	312		
Common stock warrant liability	10,049		
Convertible preferred stock, $0.01 par value; 50,854,383 authorized, 46,059,819 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	197,502		
Stockholders (deficit) equity:			
Preferred Stock, $0.01 par value; no shares authorized, issued and outstanding, actual; shares authorized, pro forma and pro forma as adjusted; no shares issued and outstanding, pro forma and pro forma as adjusted			
Common Stock, $0.01 par value; 75,000,000 shares authorized; 5,980,417 shares issued and outstanding, actual; shares authorized, pro forma and pro forma as adjusted; shares issued and outstanding, pro forma; shares issued and outstanding pro forma as adjusted(2)	59		
Additional paid-in capital	7,304		
Accumulated deficit	(195,889)		
Total stockholders (deficit) equity	(188,526)		
Total capitalization	$ 21,889	$	$

(1) A $1.00 increase or decrease in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, would increase or decrease each of cash and cash equivalents, and total stockholders (deficit) equity by $, assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase of 1.0 million shares in the number of shares of common stock offered by us would increase each of cash and cash equivalents, and total stockholders (deficit) equity by $, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus. Similarly, each decrease of 1.0 million shares in the number of shares offered by us would decrease each of cash and cash equivalents, and total stockholders equity (deficit) by $. If the underwriters option to purchase additional shares was exercised in full, pro forma as adjusted cash, cash equivalents, common stock and additional paid-in capital, stockholders equity (deficit), and shares issued and outstanding as of May 31, 2011, would be $, $, $ and , respectively.

The table above does not include:

- 7,792,219 shares of common stock issuable upon exercise of options to purchase our common stock outstanding as of August 31, 2011 at a weighted average exercise price of $2.02 per share;

Table of Contents

5,296,845 shares of common stock issuable upon the exercise of warrants to purchase our common stock outstanding as of August 31, 2011 at a weighted average exercise price of $6.90 per share that do not expire on the completion of this offering;

61,537 shares of common stock issuable upon exercise of warrants to purchase our preferred stock outstanding as of August 31, 2011 at a weighted average exercise price of $6.50 per share that do not expire on the completion of this offering; these preferred stock warrants will automatically convert to common stock warrants upon the completion of this offering;

32,251 shares of common stock reserved as of August 31, 2011 for future issuance under our 2010 Stock Option/Stock Issuance Plan as more fully described in Compensation Discussion and Analysis Executive Compensation Equity Compensation Plans ; and

4,000,000 shares of common stock reserved for future issuance under our 2011 Equity Incentive Plan, which will become effective on the day prior to the day upon which we become subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act.

(2) The number of shares of our common stock to be issued upon the conversion of our Convertible Notes depends on the initial offering price of our public offering. This is because, as further described in Certain Relationships and Related Party Transactions, the terms of the Convertible Notes provide that the Convertible Notes automatically convert into shares of our common stock in connection with a qualified initial public offering at a price per share equal to a 20% discount from the public offering price.

The pro forma and pro forma as adjusted share information in the table above includes the issuance of additional shares of common stock in connection with an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover of this prospectus. In addition:

A $1.00 increase in the assumed initial public offering price would decrease the total number of shares issued in connection with the conversion of the Convertible Notes upon the closing of this offering by shares;

A $1.00 decrease in the assumed initial public offering price would increase the total number of shares issued in connection with the conversion of the Convertible Notes upon the closing of this offering by shares; and

More than a $1.00 decrease in the assumed initial public offering price would further increase the total number of shares issued in connection with the conversion of the Convertible Notes and more than a $1.00 increase in the assumed initial public offering price would further decrease the total number of shares issued in connection with the conversion of the Convertible Notes.

Table of Contents

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock and the net tangible book value per share of our common stock immediately after this offering. As of May 31, 2011, our pro forma net tangible book value was $ million, or $ per share of our common stock. Pro forma net tangible book value per share represents the amount of our total tangible assets less our total liabilities, divided by the total number of shares of our common stock outstanding, after giving effect to (i) the automatic conversion of all of our outstanding convertible preferred stock into shares of common stock upon the completion of this offering, (ii) the reclassification of preferred stock warrant liabilities to stockholders (deficit) equity immediately prior to the completion of this offering, (iii) the issuance of additional shares of common stock pursuant to the automatic conversion of the Convertible Notes upon the consummation of this offering, as described in greater detail in Certain Relationships and Related Party Transactions, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus and (iv) the issuance of shares of common stock immediately prior to the completion of this offering upon the net exercise of warrants outstanding to purchase shares of common stock, which would otherwise expire upon completion of this offering, assuming an initial offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus.

After giving effect to the above referenced adjustment and the sale by us of shares of our common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of May 31, 2011, would have been approximately $ million, or $ per share of our common stock. This amount represents an immediate increase in our pro forma as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution of $ per share to new investors purchasing shares of our common stock in this offering at the initial public offering price.

The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share	$
Pro forma net tangible book value per share as of May 31, 2011, before giving effect to this offering	$
Increase in pro forma net tangible book value per share attributable to new investors purchasing shares in this offering	
Pro forma as adjusted net tangible book value per share after giving effect to this offering	
Dilution per share to investors in this offering	$

A $1.00 increase or decrease in the initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, would increase or decrease our pro forma as adjusted net tangible book value per share after this offering by approximately $ and would increase or decrease dilution per share to new investors by approximately $, assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same. In addition, to the extent any outstanding options or warrants are exercised, new investors will experience further dilution.

If the underwriters exercise their option to purchase additional shares in full, assuming an initial public offering price of per share, the midpoint of the price range set forth on the cover of this prospectus, the pro forma as adjusted net tangible book value will increase to $ per share, representing an immediate increase to existing stockholders of $ per share and an immediate dilution of $ per share to new investors.

Table of Contents

The number of shares of our common stock to be issued upon the conversion of the Convertible Notes, depends on the initial offering price of our public offering. This is because, as further described in Certain Relationships and Related Party Transactions, the terms of the Convertible Notes provide that the Convertible Notes automatically convert into shares of our common stock in connection with a qualified initial public offering at a price per share equal to a 20% discount from the public offering price. In addition:

- A $1.00 increase in the assumed initial public offering price would increase our pro forma as adjusted net tangible book value by $ per share, and increase the dilution to new investors by $ per share, assuming the number of shares offered by us, as set forth on the cover of this prospectus, remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us;

- A $1.00 decrease in the assumed initial public offering price would decrease our pro forma as adjusted net tangible book value by $ per share, and decrease the dilution to new investors by $ per share, assuming the number of shares offered by us, as set forth on the cover of this prospectus, remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us;

- More than a $1.00 increase in the assumed initial public offering price would further increase our pro forma as adjusted net tangible book value, and further increase the dilution to new investors; and

- More than a $1.00 decrease in the assumed initial public offering price would further decrease our pro forma as adjusted net tangible book value, and further decrease the dilution to new investors.

The following table summarizes, as of May 31, 2011, on a pro forma as adjusted basis, the number of shares purchased or to be purchased from us, the total consideration paid or to be paid to us, and the average price per share paid or to be paid to us by existing stockholders and new investors purchasing shares of our common stock in this offering at an assumed initial public offering price of $ per share, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table below shows, new investors purchasing shares of our common stock in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Share Purchased		Total Consideration		Average Price per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New investors					
Total		100%	$	100%	

A $1.00 increase or decrease or in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, would increase or decrease the total consideration paid to us by new investors by $ million and increase or decrease or the percent of total consideration paid to us by new investors by %, assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same.

As discussed above, the number of shares of our common stock to be issued upon the conversion of the Convertible Notes depends on the initial public offering price of this offering. Accordingly, upon completion of this offering:

A $1.00 increase in the assumed public offering price would increase total consideration paid by new investors and total consideration paid by all stockholders by approximately $ million, and result in our existing stockholders owning % and new investors owning % of the total number of shares of common stock outstanding;

Table of Contents

A $1.00 decrease in the assumed initial public offering price would decrease total consideration paid by new investors and total consideration paid by all stockholders by approximately $ million, and result in our existing stockholders owning % and new investors owning % of the total number of shares of common stock outstanding;

More than a $1.00 increase in the assumed initial public offering price would further increase total consideration paid by new investors and total consideration paid by all stockholders; and

More than a $1.00 decrease in the assumed initial public offering price would further decrease total consideration paid by new investors and total consideration paid by all stockholders, and result in our existing stockholders owning a larger percentage and new investors owning a smaller percentage of the total number of shares of common stock outstanding.

The above discussion and tables are based on our common stock outstanding as of May 31, 2011, after giving effect to (i) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 46,059,819 shares of common stock immediately prior to the completion of this offering; (ii) the issuance of additional shares of common stock pursuant to the automatic conversion of the Convertible Notes upon the consummation of this offering, as described in greater detail in Certain Relationships and Related Party Transactions, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus and (iii) the issuance of shares of common stock immediately prior to the completion of this offering upon the net exercise of warrants outstanding to purchase shares of common stock which would otherwise expire upon completion of this offering, assuming an initial public offering price of $ per share, the midpoint range set forth on the cover of this prospectus.

This number excludes:

7,792,219 shares of common stock issuable upon exercise of options to purchase our common stock outstanding as of August 31, 2011 at a weighted average exercise price of $2.02 per share;

5,296,845 shares of common stock issuable upon exercise of warrants to purchase our common stock outstanding as of August 31, 2011 at a weighted average exercise price of $6.90 per share that do not expire on the completion of this offering;

61,537 shares of common stock issuable upon exercise of warrants to purchase our preferred stock outstanding as of August 31, 2011 at a weighted average exercise price of $6.50 per share that do not expire on the completion of this offering; these preferred stock warrants will automatically convert to common stock warrants upon the completion of this offering;

32,251 shares of common stock reserved as of August 31, 2011 for future issuance under our 2010 Stock Option/Stock Issuance Plan as more fully described in Compensation Discussion and Analysis Executive Compensation Equity Compensation Plans ; and

4,000,000 shares of common stock reserved for future issuance under our 2011 Equity Incentive Plan, which will become effective on the day prior to the day upon which we become subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act.

If all our outstanding stock options and warrants outstanding had been exercised as of May 31, 2011, our pro forma net tangible book value as of May 31, 2011, would have been approximately $ million or $ per share of our

common stock, and the pro forma net tangible book value after giving effect to this offering would have been $ per share, representing dilution in our pro forma net tangible book value per share to new investors of $.

Table of Contents

SELECTED CONSOLIDATED FINANCIAL DATA

In 2009, we changed our fiscal year end from December 31 to August 31. The change was effective for the eight-month period ended August 31, 2009. The selected consolidated statement of operations data for fiscal years ended December 31, 2007 and 2008, the eight months ended August 31, 2009, the fiscal year ended August 31, 2010 and the nine months ended May 31, 2011 and the selected consolidated balance sheet data at December 31, 2008, August 31, 2009 and 2010 and May 31, 2011 are derived from our audited Consolidated Financial Statements, appearing elsewhere in this prospectus. The consolidated financial data for the nine-month periods ended May 31, 2010 has been derived from our unaudited consolidated financial statements included elsewhere in this prospectus. The unaudited consolidated financial statements have been prepared on a basis consistent with our audited consolidated financial statements and include, in the opinion of management, all adjustments, consisting only of normal and recurring adjustments, necessary for a fair presentation of such consolidated financial data. Results for interim periods are not necessarily indicative of results for a full fiscal year. The selected consolidated statement of operations data for the fiscal year ended December 31, 2006 and the selected consolidated balance sheet data as of December 31, 2006 have been derived from our audited consolidated financial statements, which are not included in this prospectus. Historical results are not necessarily indicative of results for future periods.

You should read the following selected consolidated financial data in conjunction with Management s Discussion Analysis of Financial Condition and Results of Operations and our Consolidated Financial Statements appearing elsewhere in this prospectus.

	Year Ended December 31,			Eight Months Ended August 31,	Year Ended August 31,	Nine Months Ended May 31,	
	2006	2007	2008	2009	2010	2010 (Unaudited)	2011
	(In thousands except share and per share data)						
Revenues							
Product sales	$	$	$ 64	$ 98	$ 288	$ 236	$ 97
Collaborative research and government grants	26,643	7,180	3,880	2,328	6,326	4,095	4,799
Total revenue	26,643	7,180	3,944	2,426	6,614	4,331	4,896
Cost and operating expenses							
Cost of product sales			3,777	2,690	2,946	2,217	1,940
Research and development	18,101	19,220	20,309	12,397	16,697	12,639	13,837
Selling, general and administrative	8,079	9,811	8,784	6,645	9,207	6,844	6,900

Total cost and operating expenses	26,180	29,031	32,870	21,732	28,850	21,700	22,677
Income (loss) from operations	463	(21,851)	(28,926)	(19,306)	(22,236)	(17,369)	(17,781)
Interest expense	(204)	(123)		(5)	(153)	(91)	(365)
Interest income	760	1,521	2,001	243	23	21	6
Other income (expense)	34	5		161	(152)	(167)	(1,450)
Income (loss) before income taxes	1,053	(20,448)	(26,925)	(18,907)	(22,518)	(17,606)	(19,590)
Income tax benefit (expense)	(1)	(7)	148	211	(65)	14	28
Net income (loss) before cumulative effect of a change in accounting principle	1,052	(20,445)	(26,777)	(18,696)	(22,583)	(17,592)	(19,562)
Cumulative effect of a change in accounting principle(1)	649						
Net income (loss)	1,701	(20,445)	(26,777)	(18,696)	(22,583)	(17,592)	(19,562)
Net income (loss) allocable to preferred stockholders	(1,701)						
Net loss attributable to common stockholders		$ (20,455)	$ (26,777)	$ (18,696)	$ (22,583)	$ (17,592)	$ (19,562)

Table of Contents

	Year Ended December 31,			Eight Months Ended August 31,	Year Ended August 31,	Nine Months Ended May 31,	
	2006	2007	2008	2009	2010	2010	2011
						(Unaudited)	
	(In thousands except share and per share data)						
Basic and diluted net loss per share attributable to common stockholders(2)	$ (3.84)	$ (4.89)	$ (3.33)	$ (3.90)	$ (3.05)	$ (3.31)	
Weighted average outstanding common shares used for net loss per share attributable to common stockholders(2):							
Basic and diluted	5,112,258	5,323,259	5,473,090	5,621,671	5,791,443	5,775,322	5,917,179
Pro forma net loss per share:							
Basic and diluted (unaudited)(3)					$		$
Weighted average outstanding common shares used in computing pro forma net loss per share(1):							
Basic and diluted (unaudited)(3)							

(1) Effective January 1, 2006 the Company changed the manner in which it accounted for certain warrants that were contingently redeemable.

(2) The basic and diluted loss per share are computed by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding during the period. For the periods where we

presented losses, all potentially dilutive common shares comprising of stock options, warrants and convertible preferred stock are anti-dilutive.

(3) The unaudited pro forma basic and diluted loss per common share have been computed as though the conversion had occurred as of September 1, 2009 to give effect to: (i) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 46,059,819 shares of common stock effective immediately prior to the completion of this offering using the if-converted method, (ii) the issuance of additional shares of common stock pursuant to the automatic conversion of the Convertible Notes upon the consummation of this offering, as described in Certain Relationships and Related Party Transactions, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus and (iii) the issuance of shares of common stock immediately prior to the completion of this offering upon the net exercise of warrants outstanding to purchase shares of common stock, which would otherwise expire upon the completion of this offering, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus using the treasury stock method.

Our stock-based compensation expense is as follows (in thousands):

	Year Ended December 31,			Eight Months Ended August 31,	Year Ended August 31,	Nine Months Ended May 31,	
	2006	2007	2008	2009	2010	2010	2011
						(Unaudited)	
Research and development	177	389	467	345	409	314	1,223
Selling, general and administrative	154	338	705	737	891	627	566
Total stock-based compensation expense	$ 331	$ 727	$ 1,172	$ 1,082	$ 1,300	$ 941	$ 1,789

	As of December 31,			As of August 31,		As of May 31,
	2006	2007	2008	2009	2010	2011
			(In thousands)			
Consolidated Balance Sheet Data:						
Cash and cash equivalents	$ 4,661	$ 13,863	$ 12,145	$ 14,960	$ 33,055	$ 17,717
Working capital	15,773	70,029	41,297	27,543	28,325	11,738
Total assets	30,683	84,500	57,718	41,094	46,648	31,594
Common and preferred stock warrant liabilities	27	13	13	2,944	8,911	10,361
Total long-term liabilities	546	358	290	3,197	13,310	13,075
Convertible preferred stock	112,106	183,079	183,079	183,079	197,502	197,502

Total stockholders deficit	$ (87,181)	$ (103,358)	$ (128,905)	$ (149,577)	$ (170,829)	$ (188,526)

48

Table of Contents

MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read together with our consolidated financial statements and the other financial information appearing elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of various factors, including those discussed below and those discussed in the section entitled Risk Factors included elsewhere in this prospectus.

Overview

We are an agricultural biotechnology company selling seeds to produce renewable bioenergy feedstocks that can enable the large-scale replacement of petroleum and other fossil fuels. We use a combination of advanced plant breeding and biotechnology to develop new crops, known as dedicated energy crops, that we believe address the limitations of first-generation bioenergy feedstocks, such as corn and sugarcane, increase biomass productivity, reduce crop inputs and improve cultivation on marginal land.

Our first large-scale commercial products are proprietary sweet sorghum varieties that can be used as a drop-in feedstock to extend the operating season of Brazilian sugarcane-to-ethanol mills, the operating days of which are currently limited due to the inherent limitations of sugarcane physiology and growth patterns. Our dedicated energy crops can also be used for the production of second-generation biofuels and bio-based chemicals, including cellulosic ethanol, butanol, jet fuel, diesel-like molecules and gasoline-like molecules, from non-food biomass. Finally, baseload utility-scale electric power can also be generated from the biomass feedstocks grown from our seeds.

We operate in one segment, and accordingly, our results of operations are presented on a consolidated basis. During 2009, we changed our fiscal year-end to August 31 from December 31 to better match the seasonality of the production and selling cycles related to the seeds and traits business. Therefore our results of operations for the period ended August 31, 2009 reflect an eight-month period and are not comparable to the prior twelve-month period.

To date the majority of our revenue and expense has been denominated in U.S. dollars and foreign currency fluctuations have not had a significant impact on our historical results of operations. As we pursue and enter markets outside the United States, we expect our product sales will be made in local currencies and accordingly, that foreign currency fluctuations will have a greater impact on our operating results.

We generate our revenues from government grants, research and development collaboration agreements and from product sales. We began selling products in 2008 and, while our product sales have been minimal to date, we expect product sales to eventually become the primary source of our revenues. We expect product revenues to include a combination of seed sales and technology fees, similar to current business models used for food crops incorporating biotech traits. As we continue to develop traits for our products, we expect that a significant portion of our product revenues will be generated from the sale of seeds that include our traits. We believe our largest immediate market opportunity is selling sweet sorghum into the Brazilian biofuel market. Our longer term strategies involve capitalizing on the development of the emerging cellulosic biofuel and biopower markets in the United States and Europe.

The sale of seeds is dependent upon planting and growing seasons, which vary from year to year, and are expected to result in both highly seasonal patterns and substantial fluctuations in our quarterly sales and profitability. Our product sales for the year ended August 31, 2010 and the nine months ended May 31, 2011 were minimal and, accordingly, we have not yet experienced the full nature or extent to which our business may be seasonal. We expect that the sale of

our seeds in Brazil will typically be higher in our first and fourth fiscal quarters, due to the timing of the planting

decisions made by our customers. As we increase our sales in our current markets, and as we expand into new markets in different geographies, it is possible we may experience different seasonality patterns in our business. Weather conditions and natural disasters, such as heavy rains, hurricanes, hail, floods, tornadoes, freezing conditions, drought or fire, also affect decisions by our customers about the types and amounts of seeds to plant and the timing of harvesting and planting such seeds. Disruptions that cause delays by our customers in harvesting or planting can result in the movement of orders to a future quarter, which would negatively affect any given quarter and cause fluctuations in our operating results.

We have formed collaborations with major participants in the bioenergy value chain to evaluate yields and other performance or conversion characteristics of our products and the logistics related to the use of our products. Our collaborators include ethanol mills, utilities, independent power producers, cellulosic biofuel companies, growers, grower cooperatives, equipment manufacturers, enzyme or fermentation technology companies and other support technology providers.

In row crops, like corn, cotton and soybean, we have out-licensed a portion of our traits and gene technology and we continue to pursue opportunities to out-license these technologies in other crops. We have chosen to be a technology provider or trait provider in these markets and our collaborators and customers in this area consist primarily of multi-national seed companies.

We will market our seeds and traits directly to ethanol mills, utilities, independent power producers, cellulosic biofuel companies, individual growers and grower cooperatives and to date we have sold our seeds mainly to customers who are testing them in various technologies and environments. We also work with technology providers and other market participants such as equipment manufacturers and enzyme or fermentation technology companies, to encourage the use of our proprietary products. We market our products to biorefineries and biopower facilities, regardless of conversion technology, end-molecule or end-use. In Brazil, where we have completed commercial-scale trials with leading ethanol mills, we are marketing our sweet sorghum hybrid seeds for the 2011-2012 growing season. In the United States and Europe, we have launched the first energy crops seed brand, Blade Energy Crops, under which we market proprietary switchgrass varieties and high biomass sorghum hybrids to the emerging biomass market.

We have invested significantly in research, development and technology and applied our proprietary technology platforms to energy crops. To develop high performing seeds and traits, we have integrated a suite of advanced research and development methods, which include conventional breeding, marker-assisted breeding, genomics and biotechnology, along with large, proprietary collections of germplasm (the collections of genetic resources covering the diversity of a crop, the attributes of which are inherited from generation to generation). We have utilized our existing germplasm assets along with our research and development methods to create improved seeds and traits. As a result, we believe that we have one of the leading pipelines of proprietary crop traits, based on the number and nature of our traits as well as the two-species approach we employ to validate and successfully select gene-trait combinations. Our research and development investments have been significant, amounting to $19.2 million, $20.3 million, $12.4 million and $16.7 million in the years ended December 31, 2007 and December 31, 2008, the eight months ended August 31, 2009 and the year ended August 31, 2010, respectively, and $12.6 million and $13.8 million for the nine months ended May 31, 2010 and 2011, respectively.

The remainder of our operating expenses are related to selling, general and administrative expenses incurred to establish and build our market presence and business infrastructure as well as seed production costs. For the periods prior to the commencement of sales of our seeds, we expensed our seed production costs as research and development. We began selling seeds in the United States in 2008, and since then, seed production costs have been computed on a first-in, first-out basis and valued at the lower of cost or market and are included as cost of product sales. Due to the early stage of commercialization of our seed products and lack of pricing data, a full valuation reserve has been recorded against our inventory value. Our sales and marketing expenses have not

been significant to date but we expect such expenses to increase as we pursue, enter and expand our market opportunities.

Historically, we have funded our operations from the proceeds from equity sales, debt financing, payments from collaborators and government grants. We have experienced significant losses as we invested heavily in research and development, and those costs have exceeded revenues earned through collaboration agreements and government grants and were incurred prior to generating significant revenues through product sales. As of May 31, 2011, we had an accumulated deficit of $195.9 million. We incurred net losses of $20.5 million, $26.8 million, $18.7 million and $22.6 million in the years ended December 31, 2007 and December 31, 2008, the eight months ended August 31, 2009 and the year ended August 31, 2010, respectively, and $17.6 million and $19.6 million for the nine months ended May 31, 2010 and 2011, respectively. We expect to incur additional losses related to the continued development and expansion of our business including research and development, seed production and operations, and sales and marketing. There is no assurance that profitable operations will be achieved, or if achieved, can be sustained on a continued basis.

Key Components of Our Results of Operations

Revenues

To date, our revenues have related to our product sales, collaborative research and government grants.

Product Sales. Product sales are primarily composed of sales of seeds. Going forward, we may include trait fees in our seed prices. We began selling products in 2008.

Collaborative Research. Collaborative research revenues generally consist of payments for research and development activities for specific projects. These arrangements may include a combination of non-refundable technology license fees, research and development fees, and/or fees for the achievement of contractually defined milestone events and royalties.

Government Grants. Government grant revenues consist of payments from government entities. The terms of these grants generally provide us with reimbursement for research and development services and certain types of capital expenditures over a contractually defined period.

Cost of Product Sales

Cost of product sales consists principally of the cost of labor, raw materials and third-party services related to growing, harvesting, packaging and shipping our seeds. These costs are comprised of the direct costs of our seed production employees, as well as the temporary seasonal labor costs during planting and harvesting times. Third-party services include contract labor, grower payments, and other professional services related to the cost of product sales. Cost of product sales also consists of input costs such as chemicals and seed production costs. Costs associated with collaboration, research and government grants are not included in cost of product sales but instead are included as research and development expenses. Although historically not significant, future royalty expenses associated with collaboration and license agreements with third parties will be included in cost of product sales. The amount of royalties we owe under these agreements is a function of our sales and the applicable royalty rates depend on a number of factors, including the portion of our third-party collaborator s intellectual property that is present in our products. We believe that as we develop our agronomic production operations, we will be able to achieve lower cost of product sales. To date, we have relied principally on third parties for the production of our sweet sorghum seed for use in Brazil. We believe that as we increase seed production volumes, we will be able to achieve better economies of scale from these third parties. In addition, we intend to produce more of our own seeds in Brazil, which will allow us

to further decrease our costs. For our switchgrass and high biomass sorghum products, we are currently producing seeds at our own facility in Texas and believe that we will be able to decrease our costs over time by taking advantage of greater economies of scale.

Table of Contents

Research and Development

Research and development expenses principally consist of personnel costs related to our research and development staff in support of exploratory research, breeding, agronomy and technology development and protection. Research and development expenses also include costs incurred for laboratory supplies, reimbursable costs associated with government grants and our collaborative agreements, third-party contract payments, consultants and facility and related overhead costs. We expect to increase our investments in research and development by hiring additional research and development staff. As such, we expect that our research and development expenses will increase in absolute dollars. As a percentage of revenue, we expect our research and development expenses to increase in the near-term and eventually stabilize. Also included in research and development expenses are expenses in connection with warrants granted to The Texas A&M University System and The Samuel Roberts Noble Foundation, Inc. The warrants vest based on the achievement of certain research and commercialization milestones or the passage of time. The warrants are accounted for at fair value at each quarter end until the vesting targets are met using the Black Scholes option pricing model. Once our common stock is publicly traded, the volatility of our stock price could cause an increase in the warrant fair value and resulting expense charges to research and development.

We do not track our research and development expenditures by project. Our ongoing research and development activities are dedicated to expanding our integrated platforms which consist of a combination of genetic assets, specifically germplasm and traits, and competencies in genomics and biotechnology. Our research and development expenses consist principally of personnel costs and at August 31, 2011, we had 56 full-time employees primarily engaged in our research and development activities. Our employees work time is spread across multiple research and development methods continuously focused on our technology platforms and to a much lesser extent areas for which we have received government grant awards and collaboration funding. We do not intend to provide forward-looking estimates of costs and time relating to our research and development activities due to the many uncertainties associated with genomics, conventional and marker-assisted breeding, agronomy and other genomics-based technologies. As we obtain data from our efforts, we may elect to reprioritize, delay or discontinue activities in order to focus our resources on more promising research and development methods. As a result of the nature of our activities and these uncertainties, we are unable to determine with any significant degree of certainty the duration and completion costs of our research and development activities. Additionally, when, and to what extent, we will generate future cash flows from products resulting from our research and development activities is dependent on market opportunities, the most immediate of which is the Brazilian biofuel market.

Selling, General and Administrative

Selling, general and administrative expenses consist primarily of personnel costs related to our executive, sales, legal, finance and human resources staff and professional fees including legal and accounting. Selling costs relate to business development and our sales and marketing programs to build brand awareness. We improve our brand awareness through programs including publication of crop management guides, speaking roles at industry events, trade show displays and local-level grower meetings. Costs related to these activities, including travel, are included in selling expenses. While we expect our selling expenses to increase in the near term, we believe that our focus on a relatively small number of customers, particularly in Brazil, where we plan to primarily market our products to mill operators, should allow us to operate with relatively modest overall selling expenses. We expect selling, general and administrative expenses to increase in absolute dollars in order to drive product sales and as we commence operations as a public company. Such increases may include increased insurance premiums, investor relations expenses, legal and accounting fees associated with the expansion of our business and corporate governance, financial reporting expenses, and expenses related to Sarbanes-Oxley and other regulatory compliance obligations. We expect to hire additional personnel, particularly in the area of general and administrative activities to

Table of Contents

support the growth of our business. As a percentage of revenue, we expect our selling, general and administrative expenses to increase in the near-term but to eventually decline.

Interest Expense

We recognize interest expense on notes payable and other debt obligations. We expect interest expense to fluctuate in the future with changes in our debt obligations.

Interest Income

Interest income consists primarily of interest earned on investments and cash balances. Our interest income will vary each reporting period depending on our average investment and cash balances during the period and market interest rates. We expect interest income to fluctuate in the future with changes in average investment and cash balances and market interest rates.

Other Income (Expense)

Other income (expense) consists primarily of the change in the fair value of our convertible preferred warrants and certain of our common stock warrants. Our preferred stock warrants and certain of our common stock warrants that expire upon the consummation of a qualified initial public offering are classified as liabilities. Our preferred stock warrants convert to equity classified common stock warrants upon the consummation of this offering. We expect the impact to our results of operations from our preferred stock and certain of our common stock warrant liabilities to be eliminated from other income (expense) following our initial public offering.

Provision for Income Tax Benefits

Since our inception, we have been subject to income taxes principally in the United States, and Brazil where we recently established a legal presence. We anticipate that as we expand our operations outside the United States, we will become subject to taxation based on the foreign statutory rates and our effective tax rate could fluctuate accordingly.

Income taxes are computed using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

As of August 31, 2010 and May 31, 2011, based on the available information, it is more likely than not that our deferred tax assets will not be realized, and accordingly we have taken a full valuation allowance against all of our United States deferred tax assets. As of May 31, 2011, we had approximately $168.3 million of federal and $148.1 million of state operating loss carry-forwards available to offset future taxable income, which expire in varying amounts beginning in 2018 for federal and 2016 for state purposes if unused. Federal and state laws impose substantial restrictions on the utilization of net operating loss and tax credit carry-forwards in the event of an ownership change , as defined in Section 382 of the U.S. Internal Revenue Code of 1986, as amended, or the Internal Revenue Code. We have not completed a 382 analysis to determine if a change in ownership has occurred. Until an analysis is completed, there can be no assurance that the existing net operating loss carryforwards or credits are not subject to significant limitation.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. We base our estimates and assumptions on historical

experience and on various other factors that we believe to be reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. The results of our analysis form the basis for making assumptions about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies involve significant areas of management s judgments and estimates in the preparation of our financial statements.

Revenue Recognition

Revenues are recognized when the following criteria are met: (1) persuasive evidence of an arrangement exists; (2) transfer of product or technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. To date, our primary source of revenues is derived from research collaborations and government grants. As our business continues to grow, we expect product sales will be our primary source of revenue.

Product Sales

Product sales are derived from sales of seeds and trait fees. Going forward, we may include trait fees in our seed prices. Product sales are recognized, net of discounts and allowances, once passage of title and risk of loss have occurred and contractually specified acceptance criteria have been met, provided all other revenue recognition criteria have also been met.

Collaborative Research and Government Grants

From time to time, we have entered into research and development collaboration agreements with third parties including a large agriculture supplier, consumer goods conglomerate and several biofuel producers. In addition, we have received grants from government agencies such as the Department of Energy and the United States Department of Agriculture. The research and development collaboration agreements typically provide us with multiple revenue streams, which may include upfront, non-refundable fees for licensing certain of our technologies, fees for research and development activities, and contingent milestone payments upon achievement of contractual criteria.

Technology License Fees. For collaboration agreements in which we have continuing involvement, license fees are recognized on a straight-line basis over the term of the arrangement. Licensing fees are non-refundable and not subject to future performance.

Government Grants. We receive payments from government entities in the form of government grants. Government grants generally provide us with cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period, as well as an allocated portion of our overhead expenses. Revenues from government grants are recognized in the period during which the related costs are incurred, provided that substantially all conditions under which the government grants were provided have been met and we only have perfunctory obligations outstanding.

Research and Development Fees. Generally, fees for research and development activities are recognized as the services are performed over the performance period, as specified in the respective agreements. Certain of our collaboration agreements require us to deliver research data by specific dates and that the collective program plan will result in reaching specific crop characteristics by certain dates. For such arrangements, we recognize revenues based on the approximate percentage of completion of services under the agreement, but the revenue recognized cannot exceed the payments that have accrued to us to date under the agreement. The

research and development period is estimated at the inception of each agreement and is periodically evaluated.

Milestone Payments. Fees that are contingent upon achievement of substantive performance milestones at inception of the agreement are recognized based on the achievement of the milestone, as defined in the respective agreements.

Table of Contents

We recognize deferred revenue to the extent that cash received under the collaboration agreement is in excess of the revenues recognized related to the agreement since the work under the agreement has not yet been performed at the time of cash receipt.

In April 2002, we entered into a multi-year discovery and development collaboration with Monsanto Company, focused on applying genomics technologies to identify genes that provide improvements in corn, soybean and certain row crops. Pursuant to this agreement, Monsanto licensed rights to a portion of our trait discovery pipeline in certain other row crops in exchange for license payments over several years. Monsanto also funded a research program with us. Substantially all of our revenues through December 31, 2007 were earned through this agreement. The research and collaboration portion of the agreement expired in April 2007. However, the license portion of the agreement entitles us to royalties for any products that Monsanto commercializes using our technology licensed under the agreement. In 2010, we and Monsanto agreed to amend the agreement. The amendment included an additional license fee pertaining to an expansion of the license grant. In connection with the collaboration agreement, Monsanto also purchased 3,333,333 shares of our Series E Preferred Stock.

In December 2007, we entered into a development and license agreement with Campbell Soup Company, or Campbell. The agreement provided that we would receive $7.5 million in payments from Campbell over a five-year period provided milestones were met. In addition, the agreement provided that we would be entitled to receive a royalty based on the gross sales of crop varieties created under the agreement. We recognized revenue of zero, $1.0 million, $1.2 million and $1.9 million under this agreement in the years ended December 31, 2007 and December 31, 2008, the eight months ended August 31, 2009 and the year ended August 31, 2010, respectively. Revenue recognized under this agreement for the nine months ended May 31, 2010 and 2011, was $1.4 million and $1.3 million, respectively.

We earn research funding revenues from several agreements with the Department of Energy, or the DOE, the USDA, and several leading biofuel producers whereby we perform research activities and receive revenues that partially reimburse our expenses incurred. Under such grants and agreements, we retain a proprietary interest in the products and technology we develop. These expense reimbursements primarily consist of direct expense sharing arrangements. We recorded revenue related to these grants of approximately $0.8 million, $2.0 million, $0.9 million and $2.8 million in the years ended December 31, 2007 and December 31, 2008, the eight months ended August 31, 2009 and the year ended August 31, 2010, respectively, and $2.2 million and $2.3 million for the nine months ended May 31, 2010 and 2011, respectively. The cumulative remaining amount to be claimed through September 2012 for all grants outstanding as of May 31, 2011 is approximately $5.0 million.

On December 16, 2008, we and a major agro-chemical company entered into a software license and collaboration agreement pursuant to which we provide software, software development and customer support for certain research application-based software. The agreement was structured into three phases and under the agreement, we are entitled to receive $1.5 million in payments over an approximate 4.5 year period. The software delivered is comprised of multiple elements, which include software, installation, training, customization of software, and software support. Software support is considered post-contract customer support, or PCS. We recognize revenues equal to the amount of expense recognized as services are rendered until the date that the PCS is the only undelivered element. Beginning on such date, the unrecognized revenue under the agreement will be recognized over the remaining PCS period. We recognized revenue and an equal amount of expenses totaling zero, $0.2 million and $0.3 million under this agreement in the year ended December 31, 2008, the eight months ended August 31, 2009 and the year ended August 31, 2010, respectively. Revenue and related costs recognized for the nine months ended May 31, 2010 and 2011, were $0.2 million and $0.2 million, respectively.

For the fiscal year ended August 31, 2010, Campbell Soup Company, USAID and ARPA-E represented 28.5%, 13.5% and 12.7% of our revenues, respectively. For the nine months ended May 31, 2011, Campbell Soup Company, Amyris Biotechnologies, Inc., USAID and ARPA-E represented 25.9%, 18.2%, 16.4% and 19.9% of our revenues, respectively.

Table of Contents

Convertible Notes

In August 2011, we completed the sale of $11,425,232 aggregate principal amount of non-interest bearing convertible subordinated notes, or the Convertible Notes, to nine existing investors in the Company in a private placement, as more fully described in Liquidity and Capital Resources. In connection with our review of the accounting treatment of the Convertible Notes, we have identified the following embedded derivatives under Accounting Standards Codification (ASC) 815, Derivatives and Hedging, that would be subject to bifurcation and liability accounting:

i) automatic conversion of the Convertible Notes to common stock at a 20% discount to the initial public offering price,

ii) automatic conversion of the Convertible Notes to a combination of convertible preferred stock and liability-classified derivative common stock warrants if an initial public offering is not consummated within six months of the issuance date of the Convertible Notes, and

iii) repayment of an amount equal to two times the outstanding principal amount of the Convertible Notes, if prior to the automatic conversion of the Convertible Notes, a change of control transaction is consummated.

Until such time as the conversion features are triggered, we intend to account for the Convertible Notes and various embedded derivatives in accordance with ASC 825-10, the Fair Value Option for Financial Liabilities, whereby we will initially and subsequently measure this financial instrument in its entirety at fair value, with the changes in fair value recorded each quarterly reporting period in other income/expense.

In connection with the issuance of the Convertible Notes, so long as any investors who held existing warrants to purchase shares of our common stock in connection with the original issuances of the Company Series F and G preferred stock purchased at least their respective full pro rata portion of the Convertible Notes being offered, the termination provisions of such investors existing warrants were amended such that those warrants will no longer expire upon a qualified initial public offering.

Such existing warrants are accounted for as liabilities and marked to market at each quarterly reporting period in other income/expense until the earlier of the exercise or expiration of the warrants as they are not considered indexed to our common stock. We have calculated the fair value of the modified warrants immediately prior to and subsequent to the modification and estimate that the incremental increase in the fair value of these liability classified warrants associated with this modification will range from $9 to $11 million. Given that the modification occurred in conjunction with the issuance of the Convertible Notes, the incremental increase in fair value associated with the modified warrants and the initial fair value of the Convertible Notes (the fair value of which has not yet been determined) will be compared to the $11.4 million of the proceeds received, with the difference being recognized as other income/expense in our statement of operations. Accordingly, for the quarter and year ended August 31, 2011, we expect to record other expense ranging from $9 to 11 million related to the warrant modification and additional income/expense associated with the difference between the $11.4 million proceeds received and the fair value of the Convertible Notes.

Stock-based Compensation

We account for stock-based awards granted to employees and directors by recording compensation expense based on the awards grant date estimated fair values. Stock options or warrants granted to our non-employees are re-measured as they vest. The fair value and the resulting change in value, if any, is recognized in our consolidated statements of operations during the period the related services are rendered. We expect that our expense related to stock-based compensation will increase over time.

We estimate the fair value of our stock-based awards as of the date of grant using Black-Scholes option-pricing model. Determining the fair value of stock-based awards under this model requires judgment, including estimating the value per share of our common stock adjusted for our status as a private company, estimated volatility, expected term of the awards, estimated dividend

Table of Contents

yield and the risk-free interest rate. The assumptions used in calculating the fair value of stock-based awards represent our best estimates, based on management s judgment and subjective future expectations. These estimates involve inherent uncertainties. If any of the assumptions used in the model change significantly, stock-based compensation recorded for future awards may differ materially from that recorded for awards granted previously.

The determination of the estimated value per share of our common stock is discussed below. We use the historical volatility of a group of comparative companies as an estimate for our estimated volatility. For purposes of determining the expected term of the awards in the absence of sufficient historical data relating to stock-option exercises for our company, we apply a simplified approach in which the expected term of an award is presumed to be the midpoint between the vesting date and the expiration date of the award. We base the risk-free rate used in the model on the United States Treasury zero coupon issues with remaining terms similar to the expected term of the stock options. Our estimated dividend yield is zero, as we have not and do not currently intend to declare dividends in the foreseeable future.

Once we have determined the estimated fair value of our employee stock-based awards, we recognize the portion of that value that corresponds to the portion of the award that is ultimately expected to vest, taking estimated forfeitures into account. This amount is recognized as an expense over the vesting period of the award using the straight-line method. We estimate forfeitures based upon our historical experience and, at each period, review the estimated forfeiture rate and make changes as factors affecting the forfeiture rate calculations and assumptions change.

Information related to our stock-based compensation activity, including weighted average grant date fair values and associated Black-Scholes option-pricing model assumptions related to employee stock options, is as follows:

	Year Ended, December 31, 2007	Year Ended, December 31, 2008	Eight Months Ended August 31, 2009	Year Ended August 31, 2010	Nine Months Ended May 31, 2010 (Unaudited)	2011
Stock options granted (in thousands)	1,471	996	94	972	251	876
Weighted average exercise price	$2.19	$2.25	$2.25	$2.25	$2.25	$2.43
Weighted average grant date fair value per share of stock options granted	$1.32	$1.59	$1.57	$1.51	$1.40	$1.61
Weighted average Black-Scholes model assumptions:						
Weighted average grant date fair value of common stock	$2.11	$2.17	$2.16	$2.32	$2.17	$2.49
Estimated volatility	85%	85%	85%	70%	70%	78%
Estimated dividend yield	0%	0%	0%	0%	0%	0%
	6.25	6.25	6.25	6.25	6.25	6.25

Expected term (years)						
Risk-free rates	3.41%-5.15%	1.92%-3.41%	2.10%-3.18%	2.29%-2.69%	2.56%-2.69%	1.48%-2.44%

In 2006, we granted a warrant to purchase 400,000 shares of our common stock at an exercise price of $10 per share to The Samuel Roberts Noble Foundation, Inc. Pursuant to the original terms of the warrant, the warrant vests in four equal installments on each of May 2009, May 2011, May 2013 and May 2015 and was to remain exercisable for a period of two years from the respective vesting date. In July 2011, we amended this warrant such that the warrant will remain exercisable until the earliest of a period of five years from the respective vesting date, or May 18, 2017. These warrants are accounted for at fair value and re-measured until vested. The fair value, including the resulting change in value as a result of re-measurement is recognized as research and development expense.

In 2007, we granted a warrant to purchase 200,000 shares of our common stock at an exercise price of $10 per share to The Texas A&M University System. The warrant vests in various installments

Table of Contents

based on achievement of certain research and commercialization milestones and expires in August 2017. These warrants are accounted for at fair value and remeasured until the vesting targets are met. The fair value, including the resulting change in value as a result of re-measurement is recognized as research and development expense. No warrants had vested under this arrangement as of May 31, 2011.

Our stock-based compensation expense, including employee awards and non-employee stock options and equity classified warrants, is as follows (in thousands):

	Year Ended December 31,		Eight Months Ended August 31,	Year Ended August 31,	Nine Months Ended May 31,	
	2007	2008	2009	2010	2010 (Unaudited)	2011
Research and development	389	467	345	409	314	1,223
Selling, general and administrative	338	705	737	891	627	566
Total stock-based compensation expense	$ 727	$ 1,172	$ 1,082	$ 1,300	$ 941	$ 1,789

Significant Factors, Assumptions and Methodologies Used in Determining Fair Value of Common Stock

We estimated the fair value of our common stock utilizing methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the AICPA Practice Aid.

Given the absence of public market for our common stock, the fair values of our common stock underlying stock option grants were estimated by our board of directors, which intended all stock options granted to be exercisable at a price per share not less than the per share fair market value of our common stock underlying those options on the date of grant. To assist our board of directors in this determination and in order to set the exercise price of each stock option grant, our management informed them of the most recent available valuation analysis prior to the dates of grant.

In these valuations, we first estimated enterprise value and then allocated this value to the underlying classes of equity. In estimating the enterprise value, we used a combination of an income approach, which incorporated a discounted cash flow valuation, and a market approach. To allocate the enterprise value to the underlying classes of equity for all valuations through February 28, 2011, we used the option-pricing method as an initial public offering was not anticipated in the near term. The allocation was performed because the convertible preferred stockholders are entitled to certain preferences over common stockholders, including noncumulative dividends and liquidation preferences, which resulted in more of the enterprise value being allocated to the convertible preferred stockholders than common stockholders. The allocation model also considered time until liquidity event, risk-free rate, expected volatility and adjustment for the lack of marketability of our common stock.

In April 2011, our board of directors approved plans to move forward with an initial public offering of our common stock. Accordingly, beginning with the May 31, 2011 common stock valuation, we have used a probability-weighted

expected return method to allocate our enterprise value to the underlying classes of equity. This probability-weighted expected return method included the following steps:

We estimated the timing and likelihood of an IPO liquidity event and continuing as a private company.

For the IPO scenario, we estimated our common stock value based in part on information provided by our underwriters as to their view of the possible estimated initial public offering price range for a potential near term IPO offering.

Table of Contents

For the continuing as a private company scenario, we determined our enterprise value using a combination of an income approach and a market approach. We determined the appropriate allocation of value to the common stockholders based on the rights and preferences of each class and series of our stock at that time.

We then multiplied the value of our common stock under each scenario by an estimated relative probability of each scenario occurring determined by our management and board of directors; and

We then calculated the probability-weighted value per share of our common stock.

In order to determine the fair value of our common stock, we then applied a discount for lack of marketability of our common stock to the value derived from the probability-weighted expected return method.

The most recent valuations were performed as of December 31, 2008, August 31, 2009, August 31, 2010, February 28, 2011 and May 31, 2011. The valuations as of August 31, 2010, February 28, 2011 and May 31, 2011 were performed with the assistance of a third-party valuation firm. Prior to each grant date, the board of directors considered the most recent valuation along with other relevant objective and subjective factors it deemed important in each valuation, exercising significant judgment and reflecting the board of directors best estimates at the time. These factors included:

the nature and history of our business;

our operating and financial performance;

general economic conditions and the specific outlook for our industry;

the lack of liquidity for our common stock;

the market price of companies engaged in the same or similar businesses with equity securities that are publicly traded;

the differences between the terms of our preferred and common stock related to liquidation preferences, conversion rights, dividend rights, voting rights and other features; and

the likelihood of achieving different liquidity events or remaining a private company.

We believe that we have used reasonable methodologies, approaches and assumptions in determining the fair value of our common stock. If we had made different assumptions and estimates, the amount of our recognized and to be recognized stock-based compensation expense could have been materially different.

The table below sets forth information regarding stock options for grants between January 1, 2009 and July 20, 2011:

Grants by month	Number of Shares	Exercise Price	Estimated Fair Value of Common Stock	Intrinsic Value per Share
March 2009	82,000	$ 2.25	$ 2.17	
June 2009	12,000	$ 2.25	$ 2.17	

September 2009	234,000	$ 2.25	$ 2.16	
December 2009	17,000	$ 2.25	$ 2.24	
June 2010	721,000	$ 2.25	$ 2.37	$ 0.12
October 2010	41,000	$ 2.25	$ 2.46	$ 0.21
December 2010	554,500	$ 2.44	$ 2.48	$ 0.04
January 2011	280,000	$ 2.44	$ 2.50	$ 0.06
June 2011	500,000	$ 5.59	$ 5.72	$ 0.13
July 2011	259,599	$ 5.72	$ 5.72	

Table of Contents

The table below sets forth the estimated fair value of our common stock at each valuation date since December 31, 2008:

Date	Estimated Fair Value of Common Stock
December 31, 2008	$ 2.17
August 31, 2009	$ 2.16
August 31, 2010	$ 2.44
February 28, 2011	$ 2.52
May 31, 2011	$ 5.72

Valuation as of December 31, 2008

We estimated the fair market value of $2.17 per share of our common stock as of December 31, 2008 using an option-pricing method. We first estimated our enterprise value of $210 million and then allocated this value to the underlying classes of equity using the option-pricing method as outlined in the AICPA Practice Aid. In estimating the enterprise value, we used a combination of an income approach which incorporated a discounted cash flow valuation, and a market approach. To allocate the enterprise value to the underlying classes of equity, we used the option-pricing method. Within the allocation model, we estimated a time until liquidity event of 3 years, a risk-free rate of 1.34%, a volatility input of 85% and a 25% adjustment for the lack of marketability of our common stock.

Valuation as of August 31, 2009

We estimated the fair market value of $2.16 per share of our common stock as of August 31, 2009 using an option-pricing method. We first estimated our enterprise value of $209 million and then allocated this value to the underlying classes of equity. In estimating the enterprise value, we used a combination of an income approach, which incorporated a discounted cash flow valuation and a market approach. To allocate the enterprise value to the underlying classes of equity, we used the option-pricing method. Within the allocation model, we estimated a time until liquidity event of 3 years, a risk-free rate of 1.49% a volatility input of 85% and a 25% adjustment for the lack of marketability of our common stock.

Valuation as of August 31, 2010

We obtained the assistance of a third-party valuation firm in estimating the fair market value of our common stock as of August 31, 2010 using an option-pricing method. We first estimated our enterprise value of $264 million and then used the option-pricing method to allocate the estimated enterprise value between common and preferred stockholders. In estimating the enterprise value, we used a combination of an income approach, which incorporated a discounted cash flow valuation and a market approach. Within the allocation model, we used a volatility input of 70% based on the historically observed volatilities of selected public guideline companies and estimated a time until liquidity event of 3 years. Applying an appropriate risk free interest rate of 0.72% and a 25% adjustment for the lack of marketability of our common stock, we estimated a fair market value at August 31, 2010 of $2.44 per share of our common stock.

Valuation as of February 28, 2011

We obtained the assistance of a third-party valuation firm in estimating the fair market value of $2.52 per share of our common stock as of February 28, 2011 using an option-pricing method. We first estimated our enterprise value of $270 million and then allocated this value between common and preferred stockholders using the option-pricing method. In estimating the enterprise value, we used a combination of an income approach, which incorporated a discounted cash flow valuation and a market approach. Within the allocation model, we estimated a time until liquidity event of 2.5 years, a risk-free

Table of Contents

rate of 0.94% a volatility input of 70% based on the historically observed volatilities of selected public guideline companies, and a 25% adjustment for the lack of marketability of our common stock.

As of February 28, 2011, we were considering a variety of financing alternatives, including financing from existing investors, debt financing and an initial public offering. As of February 28, 2011, an initial public offering was not anticipated in the near term.

Valuation as of May 31, 2011

In April 2011, our board of directors approved plans to move forward with an initial public offering of our common stock. This determination was based in part on macroeconomic events and the anticipated success of our Brazilian sweet sorghum cultivation. Our Brazilian sweet sorghum trials consisted of planting sweet sorghum in November and December and, after waiting for 90 to 120 days until the crop matured, harvesting the crop, transporting it to the mill, crushing the biomass and fermenting the resulting juice into ethanol, with the remaining bagasse or stalks being burned for production of electricity. By April 2011 we had reasonable evidence to conclude that the crop would mature into healthy biomass. The only steps remaining at that point involved industrial processing. We had previously achieved positive fermentation results with sweet sorghum at a laboratory scale. Consequently, we had reason to assume that the larger scale industrial processing and fermentation of the crop would be successful. In addition to the large scale industrial processing, we also needed to obtain the necessary governmental variety registrations before we could make commercial deliveries of our sweet sorghum seeds that we are marketing to potential customers in Brazil for planting in the 2011-2012 growing season, which we had not received as of May 31, 2011. We have since received such necessary governmental variety registrations. Because our sweet sorghum seeds do not contain biotech traits, they are not subject to a lengthy government regulatory process that can take up to three years. Accordingly, for purposes of the May 31, 2011 common stock valuation, we have used a probability-weighted expected return method to allocate our enterprise value to the underlying classes of equity. This probability-weighted expected return method considered a 70% probability of an IPO scenario and a 30% probability of continuing as a private company scenario. For the IPO scenario, we estimated our common stock value based in part on initial price indications provided by the investment banking firms we were considering as underwriters of a potential initial public offering as to their view of an estimated price range for a near term initial public offering. This initial price indication was received prior to engaging the underwriters for this offering. For the private company scenario, we first estimated our enterprise equity value to be $446 million and then allocated this value to the underlying classes of equity. In estimating the enterprise value, we used a combination of an income approach, which incorporated a discounted cash flow valuation, and a market approach. We then applied a 20% discount for lack of marketability to the value derived from the probability-weighted expected return method to arrive at an estimated fair market value of $5.72 per share of our common stock as of May 31, 2011. The increase in our enterprise equity value from $270 million as of February 28, 2011 to $446 million as of May 31, 2011 was primarily driven by increased long-term revenue and cash flow projections as compared to our prior forecasts. The higher projections were primarily driven by increasing our long-term growth plan following a more favorable macroeconomic environment for biofuels and anticipated higher demand for alternatives to petroleum-based products due to higher oil prices, as evidenced by a favorable IPO market for renewable fuel offerings. Additionally, we concluded our first commercial-scale trials of sweet sorghum in Brazil near the end of May and had received results indicating that the trials were successful. We view the successful completion of our sweet sorghum cultivation in Brazil in May 2011 as a significant driver of near term value. In addition, the filing of our registration statement with the SEC on May 23, 2011 increased the likelihood of a near term liquidity event, resulting in an increase in our common stock value due to a lower lack of marketability discount as compared to the February 28, 2011 valuation.

Table of Contents

Option Grants in June and July 2011

On June 23, 2011, our board of directors approved the grant of 500,000 stock options at an exercise price of $5.59 per share. On July 20, 2011, our board of directors approved the grant of 259,599 stock options at an exercise price of $5.72 per share. In order to estimate the fair value of our common stock for the purposes of establishing the exercise price, our board of directors considered an initial draft of the May 31, 2011 third-party valuation report that indicated an estimated fair value of our common stock of $5.59 as of May 31, 2011. Subsequent to the grant date, the May 31, 2011 third-party valuation report was finalized, resulting in an estimated fair value of our common stock of $5.72 as of May 31, 2011. As a result, for the financial reporting purpose of determining the estimated fair value of the options granted, we will use this $5.72 estimated fair value of our common stock as an input to the Black-Scholes option-pricing model.

Fair Value of Warrants

Liability Classified Warrants to Purchase Common Stock

We issued warrants to purchase our common stock in connection with the issuances of our Series F and Series G preferred stock. We have accounted for these warrants as liabilities as the warrants are not considered indexed to our common stock. We estimate the fair value of our liability classified warrants to purchase common stock using an option-pricing model, which incorporates several estimates and assumptions that are subject to significant management judgment. Changes in fair value at each period-end are recorded in other income (expense) in our consolidated statement of operations until the earlier of the exercise or expiration of the warrants, or the completion of this offering.

Warrants to purchase the following shares of common stock were outstanding as follows:

Series	As of December 31, 2008	As of August 31, 2009	As of August 31, 2010	As of May 31, 2010 (Unaudited)	As of May 31, 2011	Exercise Price
Series F	2,307,697	2,307,697	2,307,697	2,307,697	2,307,697	$ 6.50
Series G			3,076,923		3,076,923	$ 6.50

The fair value of the Series F warrants was calculated using the following assumptions:

	As of August 31,		As of May 31,	
	2009	2010	2010 (Unaudited)	2011
Expected term (in years)	6.0	5.0	5.26	1.6
Expected volatility	85%	90%	90%	84%
Risk free interest rate	3.21%	1.47%	2.18%	0.57%
Expected dividend yield	0%	0%	0%	0%
Estimated fair value (in thousands)	$2,931	$2,994	$3,012	$4,211

The fair value of the Series G warrants was calculated using the following assumptions:

	As of August 31, 2010	As of May 31, 2011
Expected term (in years)	9.8	3.1
Expected volatility	85%	76%
Risk free interest rate	2.70%	0.98%
Expected dividend yield	0%	0%
Estimated fair value (in thousands)	$5,584	$5,838

Table of Contents

In connection with the offering of the Convertible Notes, 1,619,922 of the warrants issued in connection with the Series F Preferred Stock offering and all of the warrants issued in connection with the Series G Preferred Stock offering were amended such that they no longer expire upon the completion of a qualified initial public offering.

Upon the completion of a qualified initial public offering, the 687,775 of the warrants to purchase common stock issued in connection with the Series F Preferred Stock offering that were not amended will either expire or be exercised for shares of common stock, and at that time, we will no longer record any changes in the fair value for those warrants in our consolidated statement of operations.

Liability Classified Warrants to Purchase Convertible Preferred Stock

We have issued warrants to purchase our convertible preferred stock in connection with certain financing arrangements. We have accounted for these warrants as liabilities because the underlying shares of convertible preferred stock are redeemable in the case of a deemed liquidation. We estimate the fair value of our convertible preferred stock warrants using an option-pricing model, which incorporates several estimates and assumptions that are subject to significant management judgment. Changes in fair value at each period end are recorded in other income (expense) in our consolidated statement of operations until the earlier of the exercise or expiration of the warrants, or the completion of this offering.

Upon the completion of this offering, our warrants to purchase convertible preferred stock will convert to warrants to purchase common stock, and at that time, we will no longer record any changes in the fair value of these liabilities in our statement of operations.

Seed Inventory

Seed inventory costs are computed on a first-in, first-out basis and valued at the lower of cost or market and are included as cost of product sales. Due to the early stage of commercialization of our seed products and with no established market for our seed products, a full valuation reserve has been recorded against our inventory.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. We record a valuation allowance when it is more likely than not that some of our net deferred tax assets will not be realized. In determining the need for valuation allowances, we consider our projected future taxable income and the availability of tax planning strategies. We have recorded a full valuation allowance to reduce our net deferred tax assets to zero except to the extent of federal credits refundable in 2009 because we have determined that it is not more likely than not that any of our net deferred tax assets will be realized. If in the future we determine that we will be able to realize any of our net deferred tax assets, we will make an adjustment to the allowance, which would increase our income in the period that the determination is made.

We operate in various tax jurisdictions and are subject to audit by various tax authorities. We recognize the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

63

Table of Contents

Impairment of Long-Lived Assets

Long-lived assets, such as property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Our long-lived assets comprise a single asset group for evaluation purposes. We evaluate whether an impairment indicator occurs primarily based on progress achieved against our business plans. To the extent that an impairment indicator has occurred, recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated undiscounted future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. For all periods presented herein, no impairment indicators have occurred and therefore no impairment charges have been recognized.

Results of Operations

The following table sets forth our consolidated results of operations for the periods shown:

	Year Ended December 31,		Eight Months Ended August 31,	Year Ended August 31,	Nine Months Ended May 31,	
	2007	2008	2009	2010	2010	2011
					(Unaudited)	
			(In thousands)			
Revenues						
Product sales	$	$ 64	$ 98	$ 288	$ 236	$ 97
Collaborative research and government grants	7,180	3,880	2,328	6,326	4,095	4,799
Total revenue	7,180	3,944	2,426	6,614	4,331	4,896
Cost and operating expenses						
Cost of product sales		3,777	2,690	2,946	2,217	1,940
Research and development	19,220	20,309	12,397	16,697	12,639	13,837
Selling, general and administrative	9,811	8,784	6,645	9,207	6,844	6,900
Total cost and operating expenses	29,031	32,870	21,732	28,850	21,700	22,677
Loss from operations	(21,851)	(28,926)	(19,306)	(22,236)	(17,369)	(17,781)
Interest expense	(123)		(5)	(153)	(91)	(365)
Interest income	1,521	2,001	243	23	21	6
Other income (expense)	5		161	(152)	(167)	(1,450)
Loss before income taxes	(20,448)	(26,925)	(18,907)	(22,518)	(17,606)	(19,590)
Income tax benefit (expense)	(7)	148	211	(65)	14	28

Net loss	$ (20,455)	$ (26,777)	$ (18,696)	$ (22,583)	$ (17,592)	$ (19,562)

Table of Contents

Comparison of Nine Months Ended May 31, 2010 and 2011

Revenues

	Nine Months Ended May 31,		
	2010	2011	Change
	(Unaudited)		
	(In thousands)		
Product sales	$ 236	$ 97	$ (139)
Collaborative research and government grants	4,095	4,799	704
Total revenue	$ 4,331	$ 4,896	$ 565

Our total revenues increased by $0.6 million to $4.9 million in the nine months ended May 31, 2011 compared to the same period in the prior year. The increase was primarily the result of an increase of $0.7 million and $0.5 million in billings related to our collaboration agreement with Amyris and one of our new government grants with ARPA-E, which was partially offset by a decrease in billings of $0.5 million under two of our grants with the USDA, along with a $0.1 million decrease in product sales.

Cost and Operating Expenses

	Nine Months Ended May 31,		
	2010	2011	Change
	(Unaudited)		
	(In thousands)		
Cost of product sales	$ 2,217	$ 1,940	$ (277)
Research and development	12,639	13,837	1,198
Selling, general and administrative	6,844	6,900	56
Total cost and operating expenses	$ 21,700	$ 22,677	$ 977

Cost of Product Sales

Our cost of product sales decreased by $0.3 million to $1.9 million in the nine months ended May 31, 2011 compared to the nine months ended May 31, 2010. Cost of grower contracts and associated agricultural supplies decreased by $0.4 million as we reduced our production and related costs of production for our switchgrass product, which was partially offset by a $0.1 million increase in personnel costs.

Research and Development Expenses

Our research and development expense increased by $1.2 million for the nine months ended May 31, 2011 compared to the nine months ended May 31, 2010. Of the $1.2 million increase, $0.9 million was related to the mark to market valuation of our warrants and stock option expense which resulted from an increase value of common stock for the comparative periods. Additionally, our licensing fees increased by $0.1 million and our consulting and travel expense increased by $0.2 million.

Selling, General and Administrative Expenses

Our selling, general and administrative expenses remained relatively flat, increasing by $0.1 million to $6.9 million in the nine months ended May 31, 2011 compared to the same period in

Table of Contents

the prior year. Legal and accounting fees increased by $0.1 million in support of our operations in Brazil.

Interest Expense, Interest Income and Other Income (Expense)

	Nine Months Ended May 31,		
	2010	2011	Change
	(Unaudited)		
	(In thousands)		
Interest expense	$ (91)	$ (365)	$ (274)
Interest income	21	6	(15)
Other income (expense)	(167)	(1,450)	(1,283)
Total	$ (237)	$ (1,809)	$ (1,572)

Interest expense, interest income and other income (expense) increased by $1.6 million in the nine months ended May 31, 2011 compared to the same period in the prior year. The increase was primarily the result of the fair value changes associated with our liability classified warrants of $1.3 million, and higher interest expense of $0.3 million.

Interest Expense

Interest expense increased by $0.3 million in the nine months ended May 31, 2011 compared to the same period in the prior year. The increase was primarily related to borrowings in February and August 2010 under our new Loan and Security Agreement with a commercial bank.

Interest Income

Interest income decreased by $15,000 in the nine months ended May 31, 2011 compared to the same period in the prior year. The decrease was primarily the result of lower average cash invested balances.

Other Income (Expense)

Other income (expense) increased by $1.3 million to $1.5 million for the nine months ended May 31, 2011 compared to $0.2 million for the nine months ended May 31, 2010. The increase is the result of the fair value changes associated with our warrant valuations.

Comparison of Eight Months Ended August 31, 2009 and Year Ended August 31, 2010

During 2009 we changed our fiscal year-end from December 31 to August 31 for financial reporting purposes. The change was effective for the eight-month period ended August 31, 2009. The discussion below compares the eight months ended August 31, 2009 to the twelve months ended August 31, 2010.

Revenues

	Eight Months Ended August 31, 2009	Year Ended August 31, 2010	Change
	(In thousands)		
Product sales	$ 98	$ 288	$ 190
Collaborative research and government grants	2,328	6,326	3,998
Total revenue	$ 2,426	$ 6,614	$ 4,188

Table of Contents

Our total revenues increased by $4.2 million in the year ended August 31, 2010 compared to the eight months ended August 31, 2009. Although the increase was largely due to non-comparable periods (twelve months in 2010 as compared to eight months in 2009), the period-to-period increase was also due to higher billings related to our collaborative research agreements of $2.3 million and an increase in revenue for our grants including the two new government grants from USAID and ARPA-E, which in the aggregate contributed $1.7 million to the 2010 period, and an increase of product sales of $0.2 million.

Cost and Operating Expenses

	Eight Months Ended August 31, 2009	Year Ended August 31, 2010	Change
		(In thousands)	
Cost of product sales	$ 2,690	$ 2,946	$ 256
Research and development	12,397	16,697	4,300
Selling, general and administrative	6,645	9,207	2,562
Total cost and operating expenses	$ 21,732	$ 28,850	$ 7,118

Cost of Product Sales

Our cost of product sales increased by $0.3 million to $2.9 million in the year ended August 31, 2010 compared to the eight months ended August 31, 2009. The increase was due to non-comparable periods (twelve months in 2010 as compared to eight months in 2009). On a comparable period basis, our cost of product sales decreased because we decreased our production and related costs for our switchgrass products during 2010 as we determined we had produced adequate supply to meet existing demand at that time. This cost reduction was partially offset by higher production costs associated with our high biomass sorghum products in the United States during 2010.

Research and Development Expenses

Our research and development expenses increased by $4.3 million to $16.7 million in the year ended August 31, 2010 compared to the eight months ended August 31, 2009. Personnel and related expense increased by $2.2 million, external research and development expense increased by $1.4 million, and depreciation expense increased by $0.7 million for the full year ended August 31, 2010 as compared to the eight month period ended August 31, 2009. These increases were due to non-comparable periods (twelve months in 2010 as compared to eight months in 2009). On a comparable period basis, our research and development expenses decreased primarily as a result of a reduction of personnel in 2010 as compared to 2009 along with a reduction in associated external research and development activities, and reduced office expenses associate with less full time employees. There were 54 fulltime research and development employees at the end of fiscal year 2010 versus 63 at the end of fiscal year 2009.

Selling, General and Administrative Expenses

Our selling, general and administrative expenses increased by $2.6 million to $9.2 million in the year ended August 31, 2010 compared to the eight months ended August 31, 2009. Personnel and related expenses including

travel, office expense and depreciation increased by $2.2 million and professional fees for legal, accounting and marketing increased by $0.4 million for the full year ended August 31, 2010 as compared to the eight month period ended August 31, 2009. Although the increase was largely due to non-comparable periods (twelve months in 2010 as compared to eight months in 2009), the period-to-period increase was partially due to increased spending related to the start up of our operations in Brazil, and also higher administrative costs in support of our research and operations in Texas. On a comparable period basis, our selling, general and administrative expenses

Table of Contents

decreased as a result of a reduction of personnel in 2010 to 25 full time administrative employees as compared to 27 full time employees in 2009.

Interest Expense, Interest Income and Other Income (Expense)

	Eight Months Ended August 31, 2009	Year Ended August 31, 2010	Change
		(In thousands)	
Interest expense	$ (5)	$ (153)	$ (148)
Interest income	243	23	(220)
Other income (expense)	161	(152)	(313)
Total	$ 399	$ (282)	$ (681)

Interest Expense, Interest Income and Other Income (Expense) increased by $0.7 million to $(0.3) million in the year ended August 31, 2010 compared to the eight months ended August 31, 2009. The increase in other (expense) was largely due to non-comparable periods (twelve months in 2010 as compared to eight months in 2009) and an increase in fair value of our warrants, by $0.3 million, a decrease in interest income from cash investments $0.2 million, and an increase in interest expense related to our debt financing during 2010 by $0.1 million.

Interest Expense

Interest expense increased by $0.1 million in the year ended August 31, 2010 compared to the eight months ended August 31, 2009. The increase was primarily due to higher outstanding principal balances on our bank debt in 2010 as compared to 2009 primarily because we entered into a loan agreement with Silicon Valley Bank in 2010.

Interest Income

Interest income decreased by $0.2 million in the year ended August 31, 2010 compared to the eight months ended August 31, 2009. The decrease in interest income was primarily due to a more conservative investment of available cash, which more than offset the impact of the non-comparable periods.

Other Income (Expense)

Other income (expense) increased by $0.3 million in the year ended August 31, 2010 compared to the eight months ended August 31, 2009. The increase was primarily due to higher expense related to the increase in the fair value of our warrants in fiscal 2010.

Comparison of Year Ended December 31, 2008 and Eight Months Ended August 31, 2009

During 2009 we changed our fiscal year-end from December 31 to August 31 for financial reporting purposes. The change was effective for the eight-month period ended August 31, 2009. The discussion below compares the year ended December 31, 2008 to the eight months ended August 31, 2009.

Table of Contents

Revenues

	Year Ended December 31, 2008	Eight Months Ended August 31, 2009	Change
		(In thousands)	
Product sales	$ 64	$ 98	$ 34
Collaborative research and government grants	3,880	2,328	(1,552)
Total revenue	$ 3,944	$ 2,426	$ (1,518)

Our total revenues decreased by $1.5 million to $2.4 million in the eight months ended August 31, 2009 compared to the year ended December 31, 2008. Although the decrease was largely due to non-comparable periods (eight months in 2009 as compared to twelve months in 2008), the period-to-period decrease was also due to lower revenue from our grants and collaborative agreements by $1.3 million and the completion of one of our grants in August 2008, which resulted in $0.2 million of reduced billings.

Cost and Operating Expenses

	Year Ended December 31, 2008	Eight Months Ended August 31, 2009	Change
		(In thousands)	
Cost of product sales	$ 3,777	$ 2,690	$ (1,087)
Research and development	20,309	12,397	(7,912)
Selling, general and administrative	8,784	6,645	(2,139)
Total cost and operating expenses	$ 32,870	$ 21,732	$ (11,138)

Cost of Product Sales

Our cost of product sales decreased by $1.1 million to $2.7 million in the eight months ended August 31, 2009 compared to the year ended December 31, 2008. The decrease was due to non-comparable periods (eight months in 2009 as compared to twelve months in 2008). On a comparable period basis, expenses increased partially as a result of higher expense related to the operations of our seed facility in Amarillo, Texas, and increased capital expenditures which increased depreciation expense by $0.1 million.

Research and Development Expenses

Our research and development expenses decreased by $7.9 million to $12.4 million in the eight months ended August 31, 2009 compared to the year ended December 31, 2008. The decrease was largely due to non-comparable

periods (eight months in 2009 as compared to twelve months in 2008). Personnel and related expense decreased by $5.3 million of which $1.1 million related to the annual savings in personnel reductions that occurred in January 2009 as we transitioned our efforts from exploratory trait research to agronomy, plant breeding, and field research in support of our transition to a commercial seed business. Additionally, laboratory and agricultural supply expense decreased by $1.5 million, and external research and development and licensing expense decreased by $1.1 million.

On a comparable period basis, our research and development expenses decreased primarily as a result of a reduction of personnel in 2009 as compared to 2008, along with reductions in expense for lab supplies and licensing fees. These reductions were partially offset by increases in external research and development and office expense in 2009 as compared to 2008. There were 63 fulltime

Table of Contents

research and development employees at the end of fiscal year 2009 versus 84 at the end of fiscal year 2008.

Selling, General and Administrative Expenses

Our selling, general and administrative expenses decreased by $2.1 million to $6.6 million in the eight months ended August 31, 2009 compared to the year ended December 31, 2008. Personnel and related expenses including travel, office expense and depreciation decreased by $1.1 million and professional fees for legal, accounting and marketing decreased by $1.0 million. The lower selling, general and administrative expenses were primarily due to non-comparable periods (eight months in 2009 as compared to twelve months in 2008). On a comparable period basis, our selling, general and administrative expenses increased primarily as a result of an increase in personnel and related expense in 2009 as compared to 2008.

Interest Expense, Interest Income and Other Income (Expense)

	Year Ended December 31, 2008	Eight Months Ended August 31, 2009	Change
		(In thousands)	
Interest expense	$	$ (5)	$ (5)
Interest income	2,001	243	(1,758)
Other income		161	161
Total	$ 2,001	$ 399	$ (1,602)

Interest Expense, Interest Income and Other Income (Expense), increased by $1.6 million to $0.4 million in the eight months ended August 31, 2009 compared to the year ended December 31, 2008. This was largely due to the $1.8 million reduction of interest income earned on investments, which was offset by the $0.2 million increase in other income due to the change in fair value of our warrants.

Interest Expense

Interest expense increased by $5,000 in the eight months ended August 31, 2009 compared to the year ended December 31, 2008.

Interest Income

Interest income decreased by $1.8 million in the eight months ended August 31, 2009 compared to the year ended December 31, 2008. The decrease was primarily due to a more conservative investment of available cash and the impact of non-comparable periods (eight months in 2009 as compared to twelve months in 2008).

Other Income

Other income increased by $0.2 million in the eight months ended August 31, 2009 compared to the year ended December 31, 2008. The increase in other income was due to the change in the fair value of our warrants.

Table of Contents

Comparison of Years Ended December 31, 2007 and 2008

Revenues

	Year Ended December 31, 2007	Year Ended December 31, 2008	Change
		(In thousands)	
Product sales	$	$ 64	$ 64
Collaborative research and government grants	7,180	3,880	(3,300)
Total revenue	$ 7,180	$ 3,944	$ (3,236)

Our total revenues decreased by $3.2 million to $3.9 million in the year ended December 31, 2008 compared to the year ended December 31, 2007. The decrease was primarily the result of the completion of a discovery and development collaboration agreement which represented $6.3 million in revenue in 2007, which was offset by $1.8 million of increased revenue from our collaborative research agreements along with an increase of $1.2 million in grant revenue, and $0.1 million in product sales.

Cost and Operating Expenses

	Year Ended December 31, 2007	Year Ended December 31, 2008	Change
		(In thousands)	
Cost of product sales	$	$ 3,777	$ 3,777
Research and development	19,220	20,309	1,089
Selling, general and administrative	9,811	8,784	(1,027)
Total cost and operating expenses	$ 29,031	$ 32,870	$ 3,839

Cost of Product Sales

Our cost of product sales increased to $3.8 million in the year ended December 31, 2008 compared to the same period in the prior year. This increase was largely a result of commencing commercial seed production activity, primarily in the United States, for switchgrass in 2008. Prior to January 1, 2008, we had not commenced commercial seed production.

Research and Development Expenses

Our research and development expenses increased by $1.1 million in the year ended December 31, 2008 compared to the same period in the prior year. This increase was primarily the result of increased research payments to third parties for field trials and related expenses in the U.S. for switchgrass and high biomass sorghum.

Selling, General and Administrative Expenses

Our selling, general and administrative expenses decreased by $1.0 million to $8.8 million in the year ended December 31, 2008 compared to the same period in the prior year. The decrease was primarily the result of a reduction in patent expenses and legal and professional fees of $1.4 million, partially offset by an increase in personnel costs of $0.3 million.

Table of Contents

Interest Expense, Interest Income and Other Income (Expense)

	Year Ended December 31, 2007	Year Ended December 31, 2008	Change
		(In thousands)	
Interest expense	$ (123)	$	$ 123
Interest income	1,521	2,001	480
Other income (expense)	5		(5)
Total	$ 1,403	$ 2,001	$ 598

Interest expense, interest income and other income (expense), increased by $0.6 million to $2.0 million in the year ended December 31, 2008 compared to the same period in the prior year. The increase was the result of an increase in interest income of $0.5 million from higher invested cash balances and a decrease in interest expense of $0.1 million from the reduction in debt and associated interest cost.

Interest Expense

Interest expense decreased by $0.1 million for the year ended December 31, 2008 as all debt and related interest expense obligations were repaid during the year ended December 31, 2007.

Interest Income

Interest income increased by $0.5 million to $2.0 million in the year ended December 31, 2008 compared to the same period in the prior year. This increase was a result of increased levels of invested cash for the year ended December 31, 2008.

Other Income (Expense)

Other income (expense) remained relatively flat, decreasing by $5,000 in the year ended December 31, 2008 compared to the same period in the prior year.

Liquidity and Capital Resources

Since inception, we have funded our operations through the sale of preferred stock and warrants, collaborative research and government grant revenues, and borrowings under financing arrangements. As of May 31, 2011, our cash and cash equivalents totaled $17.7 million.

Since our inception, we have incurred significant net losses, and, as of May 31, 2011, we had an accumulated deficit of $195.9 million. We expect to incur additional losses related to the continued development and expansion of our business including research and development, seed production and operations, and sales and marketing. There is also no assurance that profitable operations will be achieved, or if achieved, can be sustained on a continued basis.

In 2010, we entered into a Loan and Security Agreement, or the Loan Agreement with Silicon Valley Bank. The Loan Agreement provides financing for qualified equipment purchases. We borrowed a total of $7.0 million in two tranches

at interest rates of Bank Prime plus 2.75% (6.75% as of May 31, 2011). Monthly principal repayments on the first tranche are $75,000 per month through the maturity date of June 2013. Monthly principal repayments on the second tranche total $111,000 per month through the maturity date of August 2013. Currently, we make monthly principal payments of approximately $186,000 and interest payments of approximately $26,000 per month based on the 6.75% borrowing rate. On September 14, 2011, we entered into an amended Loan Agreement with Silicon Valley Bank that provided for an additional $3.5 million term loan consisting of (i) a $2.5 million immediately available term loan advance and (ii) a $1.0 million term loan advance available upon satisfaction of additional term loan advance conditions. The interest rate for the amended term loan is a fixed rate which is determined based on the Bank Prime Rate at the time of each loan advance. We will pay interest only until April 1, 2012 and then repay principal plus interest in equal installments over 36 months commencing April 1, 2012. The Loan Agreement is secured by all goods, accounts, equipment, inventory, contract rights or rights to the payment of money, leases, license agreements, franchise agreements, general intangibles (excluding any intellectual property, other than related account receivables and proceeds from intellectual property),

commercial tort claims, documents, instruments, chattel paper, cash, deposit accounts, fixtures, letters of credit rights, securities and all other investment property, supporting obligations and financial assets. The Loan Agreement requires compliance with covenants that require certain reporting obligations, the maintenance of $3.0 million in restricted cash and a minimum quick ratio, which is defined in the Loan Agreement as a ratio of consolidated, unrestricted cash and cash equivalents, net billed accounts receivable and investments with maturities of fewer than 12 months determined according to GAAP together with the aggregate balance of a cash collateral account (with a minimum balance of $1.5 million) to current liabilities, excluding the Convertible Notes, of at least 1.50 to 1.0. At May 31, 2011, the quick ratio was 2.27 and we were in compliance with all covenants in the Loan Agreement.

In August 2011, we completed the sale of $11,425,232 aggregate principal amount of non-interest bearing convertible subordinated notes, or the Convertible Notes, to nine existing investors in the Company in a private placement. Purchasers of the Convertible Notes included holders of more than 5% of our outstanding capital stock and affiliates of certain of our directors. The Convertible Notes are convertible, subject to the terms and conditions set forth therein, into shares of our common stock upon the consummation of a qualified initial public offering of our common stock at a price per share equal to a 20% discount from the public offering price. In the event that we do not consummate a qualified public offering on or prior to the six month anniversary of the issuance date of the Convertible Notes, (i) the Convertible Notes will automatically convert, subject to the terms and conditions set forth therein, into shares of our Series G Convertible Preferred Stock, at a conversion price per share equal to $6.50 and (ii) the holders will receive warrants exercisable for that number of shares of our common stock, at an initial exercise price of $6.50 per share, equal to the number of shares of Series G Convertible Preferred Stock into which such holder s Convertible Notes convert. Additionally, so long as any investors who held warrants to purchase shares of our common stock issued in connection with the purchase of the our Series F Preferred Stock or Series G Preferred Stock purchased at least their respective full pro rata portion of the Convertible Notes being offered, we agreed to amend the termination provisions of such investors existing warrants such that the warrants will no longer expire upon an initial public offering.

We believe that our existing cash and cash equivalents, the net proceeds of the Convertible Note offering, and the net proceeds of this offering will provide adequate resources to fund our operations, including research and development expenses, planned capital expenditures and working capital requirements for at least the next 18 months. In order to fund our operations beyond that time, we may need to raise additional funds through the issuance of equity, equity-related or debt securities or through obtaining credit from government or financial institutions. We cannot be certain that additional funds will be available to us on favorable terms when required, or at all.

Capital Expenditures

For the year ended December 31, 2007, the year ended December 31, 2008, the eight months ended August 31, 2009 and the year ended August 31, 2010, we used $2.3 million, $3.8 million, $1.6 million and $2.1 million, respectively, in cash to fund capital expenditures. For the nine months ended May 31, 2010 and 2011, we used $1.9 million and $0.4 million to fund capital expenditures. We currently anticipate that our aggregate capital expenditures will be between $0.3 million and $0.5 million through the year ended August 31, 2011, which will primarily relate to agronomy and breeding. We currently anticipate making aggregate capital expenditures between $1.1 million and $2.5 million for the year ended August 31, 2012.

Table of Contents

The following table sets forth a summary of our cash flows for the periods indicated:

	Year Ended December 31,		Eight Months Ended	Year Ended	Nine Months Ended May 31,	
	2007	2008	August 31, 2009	August 31, 2010	2010	2011
			(In thousands)		(Unaudited)	
Net cash used in operating activities	$ (10,032)	$ (24,899)	$ (13,508)	$ (18,846)	$ (14,838)	$ (13,437)
Net cash (used in) provided by investing activities	(53,817)	23,433	16,329	10,372	12,070	(274)
Net cash provided by (used in) financing activities	73,050	(252)	(6)	26,569	2,795	(1,627)

Cash Flows from Operating Activities

For all periods presented, we have incurred net losses and net cash used in operating activities. The net cash used in operating activities primarily resulted from significant research and development expenses and seed production costs to develop and produce our improved seeds and traits. Such expenses and costs have exceeded our revenues, which have primarily been generated from collaborative research and government grants and, to a much lesser extent, product sales.

Net cash outflows of $13.4 million from operating activities during the nine months ended May 31, 2011 primarily resulted from our net loss of $19.6 million, which included non-cash items, including $1.6 million in depreciation expense and $1.8 million in stock-based compensation expense.

Net cash outflows of $14.8 million from operating activities during the nine months ended May 31, 2010 primarily resulted from our net loss of $17.6 million, a decrease of $0.5 million in accounts payable and accrued expenses and increase of $0.5 million in deferred revenue. The net loss of $17.6 million also included non-cash items, including $1.8 million in depreciation expense and $0.9 million in stock-based compensation expense.

Net cash outflows of $18.8 million from operating activities during the year ended August 31, 2010 primarily resulted from our net loss of $22.6 million, an increase in accounts receivables of $0.7 million and a decrease in accounts payable and accrued expenses of $0.3 million. These uses of cash were partially offset by non-cash items, including $2.4 million in depreciation expense and $1.3 million in stock-based compensation expense, and a $0.4 million increase in deferred revenue.

Net cash outflows of $13.5 million from operating activities during the eight months ended August 31, 2009 primarily resulted from our net loss of $18.7 million which included non-cash items of $1.5 million in depreciation expense and $1.1 million in stock-based compensation expense. These cash outflows were partially offset by a decrease of $1.3 million in accounts receivable and an increase of $0.9 million in accounts payable and accrued expenses.

Net cash outflows of $24.9 million from operating activities during the year ended December 31, 2008 primarily resulted from our net loss of $26.8 million, an increase in accounts receivables of $1.5 million, and a decrease in accounts payable and accrued expenses of $0.8 million. These uses of cash were partially offset by non-cash items,

including $2.2 million in depreciation expense and $1.2 million in stock-based compensation expense, and a decrease of $0.5 million in other assets.

Net cash outflows of $10.0 million from operating activities during the year ended December 31, 2007 primarily resulted from our net loss of $20.5 million, a decrease of $1.0 million in deferred revenue, and an increase of $1.0 million in other assets. These uses of cash were partially offset by a decrease of $8.8 million in accounts receivables primarily due to the collection of receivables from Monsanto, an increase of $1.2 million in accounts payable and accrued expenses, and by non-cash items, including $1.9 million in depreciation expense and $0.7 million in stock-based compensation expense.

Table of Contents

Cash Flows from Investing Activities

Our investing activities consisted primarily of net investment purchases, maturities of investments and capital expenditures.

Net cash used in investing activities of $0.3 million during the nine months ended May 31, 2011 was due to purchases of property and equipment.

Net cash provided by investing activities of $12.1 million during the nine months ended May 31, 2010 was primarily due to $15.4 million in maturities of investments, partially offset by a $1.4 million increase in restricted cash and investments and $1.9 million in purchases of property and equipment.

Net cash provided by investing activities of $10.4 million during the year ended August 31, 2010 primarily resulted from $15.4 million in maturities of investments, partially offset by a $2.9 million increase in restricted cash and investments and $2.1 million in purchases of property and equipment.

Net cash provided by investing activities of $16.3 million during the eight months ended August 31, 2009 primarily resulted from $48.2 million in maturities of investments, partially offset by $30.3 million in purchases of investments, and $1.6 million in purchases of property and equipment.

Net cash provided by investing activities of $23.4 million during the year ended December 31, 2008 primarily resulted from $74.0 million in maturities of investments and a $2.6 million decrease in restricted cash and investments, partially offset by $49.4 million in purchases of investments, and $3.8 million in purchases of property and equipment.

Net cash used in investing activities of $53.8 million during the year ended December 31, 2007 primarily resulted from $58.1 million in purchases of investments and $2.3 million in purchases of property and equipment, partially offset by $6.4 million in maturities of investments.

Cash Flows from Financing Activities

Net cash used in financing activities of $1.6 million during the nine months ended May 31, 2011 was primarily due to loan repayments.

Net cash provided by financing activities of $2.8 million during the nine months ended May 31, 2010 was primarily due to amounts received under a loan agreement with a bank.

Net cash provided by financing activities of $26.6 million during the year-ended August 31, 2010 was primarily due to $20.0 million in proceeds from the issuance of Series G Preferred stock and common stock warrants and $7 million in amounts received under a loan agreement with a bank, partially offset by loan repayments totaling $0.5 million.

Net cash used in financing activities was $6,000 during the eight months ended August 31, 2009.

Net cash used in financing activities of $0.3 million during the year ended December 31, 2008 was primarily due to repayments on borrowings.

Net cash provided by financing activities of $73.1 million during the year-ended December 31, 2007 was primarily due to $74.2 million in proceeds from the issuance of Series F Preferred stock and common stock warrants partially offset by loan repayments totaling $1.5 million.

75

Table of Contents

Contractual Obligations

The following is a summary of our contractual obligations as of August 31, 2010 (unaudited):

Contractual Obligations	Total	Year Ended August 31, 2011	2012	2013	2014	Year Ended August 31, 2015 and Beyond
			(In thousands)			
Operating Lease Obligations	2,831	905	824	620	367	115
Interest Payments Relating to Long-Term Debt	647	361	215	70	1	
Research Collaboration Agreements	5,368	2,889	2,289	180	10	
Long-Term Debt	6,380	2,182	2,174	2,019	5	
Total	15,226	6,337	5,502	2,889	383	115

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under SEC rules, such as relationships with unconsolidated entities or financial partnerships, which are often referred to as structured finance or special purpose entities, established for the purpose of facilitating financing transactions that are not required to be reflected on our consolidated balance sheets.

Seasonality

The sale of seeds is dependent upon planting and growing seasons, which vary from year to year, and are expected to result in both highly seasonal patterns and substantial fluctuations in quarterly sales and profitability. Our product sales for the year ended August 31, 2010 and the nine months ended May 31, 2011 were minimal and, accordingly, we have not yet experienced the full nature or extent to which our business may be seasonal. We expect that the sale of our seeds in Brazil will typically be higher in our first and fourth fiscal quarters, due to the timing of the planting decisions made by our customers. As we increase our sales in our current markets, and as we expand into new markets in different geographies, it is possible we may experience different seasonality patterns in our business. Weather conditions and natural disasters, such as heavy rains, hurricanes, hail, floods, tornadoes, freezing conditions, drought or fire, also affect decisions by our customers about the types and amounts of seeds to plant and the timing of harvesting and planting such seeds. Disruptions that cause delays by our customers in harvesting or planting can result in the movement of orders to a future quarter, which would negatively affect the quarter and cause fluctuations in our operating results.

Inflation

We believe that inflation has not had a material impact on our results of operations for the year ended December 31, 2007, the year ended December 31, 2008, the eight months ended August 31, 2009 and the year ended August 31, 2010, or for the nine months ended May 31, 2010 and 2011. There can be no assurance that future inflation will not have an adverse impact on our operating results and financial condition.

Quantitative and Qualitative Disclosures about Market Risk

We are exposed to the effect of interest rate changes, foreign currency fluctuations and changes in commodity prices. We are also exposed to changes in the general economic conditions in the countries where we conduct business, which currently is substantially all in the United States and Brazil. As of August 31, 2010, we had only cash, cash equivalents and restricted cash, and therefore we were not exposed to changes in equity or debt prices. Our current investment strategy is to invest in financial

instruments that are highly liquid, readily convertible into cash and which mature within three months from the date of purchase. To date, we have not used derivative financial instruments to manage any of our market risks or entered into transactions using derivative financial instruments for trading purposes. All of the potential changes noted below are based on sensitivity analyses performed on our financial position as of August 31, 2010. Actual changes may prove to be greater or less than those hypothesized.

We do not believe our cash equivalents have significant risk of default or illiquidity. While we believe our cash equivalents do not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions that are in excess of federally insured limits. We cannot be assured that we will not experience losses on these deposits.

Interest Rate Risk

Our exposure to market risk for changes in interest rates primarily relates to our equipment loans, which are variable-rate debt obligations. As of August 31, 2010, we had two tranches of equipment loans outstanding amounting to $6.6 million at an interest rate of 6.75% (Prime Rate plus 2.75%). If interest rates increase by 100 basis points related to the outstanding amounts as of August 31, 2010, our interest expense would change by approximately $66,000 on an annual basis prior to considering monthly principal repayment.

Foreign Currency Risk

We have foreign currency risks related to our operating expenses denominated in currencies other than the U.S. Dollar. Changes in exchange rates between the U.S. Dollar and other currencies will result in increases or decreases in our costs and earnings, and also may affect the book value of our assets outside the United States. To date, most of our contracts have been entered into in the United States and accordingly have been denominated in U.S. Dollars. Going forward we anticipate that our sales will be denominated in the local currency of the country in which the sale occurs. In addition, our operating expenses to date have been denominated in the currencies of the countries in which our operations are located, primarily the United States and Brazil. As a result, while our revenue and operating expenses are mostly hedged on a transactional basis, the translation of our operating results into U.S. Dollars may be adversely impacted by strengthening U.S. currency.

Through May 31, 2011, our operations in Brazil have not been significant and therefore fluctuations in the Brazil Real have had a minimal impact on our results of operations. As our international operations in Brazil grow, the risks associated with fluctuations in the Brazil Real will become greater, and we will continue to reassess our approach to managing this risk.

Commodity Risk

Our exposure to market risk for changes in commodity prices currently is minimal. As our commercial operations grow, our exposure will relate mostly to the demand side as our customers are highly exposed to fluctuations in prices of sugar and crude oil and somewhat exposed to fluctuations in agricultural commodities, especially soybean. For example, if the price of sugar, which is produced from sugarcane and which cannot be produced from sweet sorghum today, rises significantly relative to the price of ethanol, it may become more profitable for ethanol mill operators to grow sugarcane even in adverse conditions, such as through the expansion of sugarcane fields to marginal land or the extension of the sugarcane harvesting season. During sustained periods of significantly higher sugar prices, demand for our seeds may decrease, which could materially and adversely affect our operating results. We are also indirectly exposed to fluctuations in soft commodities prices like soybean when we negotiate production contracts with seed producers. We currently do not use derivative financial instruments to hedge any price volatility of agricultural

commodities.

Table of Contents

Recent Accounting Pronouncements

In October 2009, the FASB issued Accounting Standards Update, or ASU, No. 2009-13, *Revenue Recognition (Topic 605): Multiple Deliverable Revenue Arrangements.* ASU No. 2009-13 addresses how to determine whether an arrangement involving multiple deliverables contains more than one unit of accounting and how to allocate consideration to each unit of accounting in the arrangement. This ASU replaces all references to fair value as the measurement criteria with the term selling price and establishes a hierarchy for determining the selling price of a deliverable. ASU 2009-13 also eliminates the use of the residual value method for determining the allocation of arrangement consideration. This standard was adopted by us on September 1, 2010 and the adoption of this standard did not have a material impact on our consolidated financial statements.

Effective September 1, 2010, we adopted ASU No. 2010-06, *Fair Value Measurements and Disclosures*, which requires previous fair value hierarchy disclosures to be further disaggregated by class of assets and liabilities. A class is often a subset of assets or liabilities within a line item in the balance sheet. In addition, significant reclassifications between Levels 1 and 2 of the fair value hierarchy are required to be disclosed. These additional requirements became effective September 1, 2011 for quarterly and annual reporting. Their adoption did not have any impact on our financial statements. In addition, ASU 2010-06 requires more detailed disclosures regarding changes in Level 3 instruments. This disclosure change will be effective September 1, 2012 and is not expected to have an impact on our consolidated financial statements.

In April 2010, the FASB issued an ASU No. 2010-17, *Revenue Recognition Milestone Method (Topic 605): Milestone Method of Revenue Recognition*. The standard provides guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research or development transactions. Research or development arrangements frequently include payment provisions whereby a portion or all of the consideration is contingent upon milestone events such as successful completion of phases in a study or achieving a specific result from the research or development efforts. The amendments in these standards provide guidance on the criteria that should be met for determining whether the milestone method of revenue recognition is appropriate. The standard is effective for fiscal years and interim periods within those years beginning on or after June 15, 2010, with early adoption permitted, and applies to milestones achieved on or after that time. This standard was adopted by us on September 1, 2010 and the adoption of this standard did not have a material impact on our consolidated financial statements.

In May 2011, the FASB issued ASU 2011-04, *Amendments to Achieve Common Fair Value Measurements and Disclosure Requirements in U.S. GAAP and IFRSs*, to provide largely identical guidance about fair value measurement and disclosure requirements with the International Accounting Standards Board (IASB) IFRS 13, *Fair Value Measurement*. The new standard does not extend the use of fair value but, rather, provides guidance about how fair value should be applied where it already is required or permitted under U.S. GAAP. ASU 2011-04 is effective prospectively for interim and annual periods beginning after December 15, 2011. Early adoption is not permitted. The Company is currently evaluating the impact of adoption of this standard, if any, on its consolidated financial statements.

Table of Contents

BUSINESS

Our Company

We are an agricultural biotechnology company selling seeds to produce renewable bioenergy feedstocks that can enable the large-scale replacement of petroleum and other fossil fuels. We use a combination of advanced plant breeding and biotechnology to develop new crops, known as dedicated energy crops, that we believe address the limitations of first-generation bioenergy feedstocks, such as corn and sugarcane, increase biomass productivity, reduce crop inputs and improve cultivation on marginal land.

Our first large-scale commercial products are proprietary sweet sorghum varieties that can be used as a drop-in feedstock to extend the operating season of Brazilian sugarcane-to-ethanol mills, the operating days of which are currently limited due to the inherent limitations of sugarcane physiology and growth patterns. Our dedicated energy crops can also be used for the production of second-generation biofuels and bio-based chemicals, including cellulosic ethanol, butanol, jet fuel, diesel-like molecules and gasoline-like molecules, from non-food biomass. Finally, baseload utility-scale electric power can also be generated from the biomass feedstocks grown from our seeds.

The seed industry has historically required very little capital to manufacture seeds, and seeds have typically been priced based on a share of the value they create and thus have generated high gross margins. As a producer of proprietary seeds, we believe we are in the most attractive segment of the bioenergy value chain upstream from the capital intensive refining and conversion of biomass. For example, in 2009 corn seed providers maintained high margins when volatile commodity prices significantly impacted corn ethanol refining margins. Therefore, we believe our success is tied to adoption of our products rather than the relative profitability of downstream participants. Our upstream position in the value chain also allows us to be largely independent of the success of any particular conversion technology or end use.

We develop low-input dedicated energy crops capable of producing high yields per acre using innovative plant breeding and trait biotechnology. By developing these types of crops, we enable the scalable, sustainable and economic production of bioenergy. Our proprietary collection of energy crop parent lines, known as germplasm, in combination with our pipeline of biotechnology traits allows us to develop bioenergy feedstocks to meet the needs of both biomass refineries and growers of biomass, all while using less water and less fertilizer than row crops like corn or soybean, even if grown on marginal land. We believe that the strength of our technology has been validated by our receipt of multiple competitive grants and collaborations, including a United States Agency for International Development, or USAID, grant and one of the U.S. Department of Energy s first Advanced Research Project Agency for Energy, or ARPA-E, grants in 2009, as well as a $137 million multi-year collaboration with Monsanto Company signed in 2002. We also have significant intellectual property rights to our technology platforms, traits and seed products.

We market and sell our sweet sorghum seeds in Brazil and our switchgrass and high biomass sorghum seeds in the United States under our brand, Blade Energy Crops, or Blade. Our largest immediate commercial opportunity is the Brazilian ethanol market, which currently uses sugarcane as its predominant feedstock. Due to the inherent limitations of sugarcane physiology and growth patterns, Brazilian mill operators typically obtain sugarcane that makes mill operation economically feasible approximately 200 days per year, based on a report issued by the Brazilian Ministry of Agriculture s crop forecasting agency, Companhia Nacional de Abastecimento (Conab), dated May 2010. This results in an estimated 3.4 million metric tons per day of crushing capacity, according to our estimate, which we derive from a 2011 Brazil Agrianual report. Boa Vista / Nova Fronteira, a joint venture of Grupo São Martinho S.A. and Petrobras Biofuels, recently planted, harvested and processed a commercial-scale planting of our sweet sorghum

products and produced both ethanol and power using the existing agricultural equipment and processing infrastructure. Similar activities have been completed with two other Brazilian ethanol producers, ADM do Brasil Ltda, and Usina Rio

Table of Contents

Pardo S.A. We believe the success of our first commercial-scale planting at the mill owned by Boa Vista/Nova Fronteira, a joint venture of Grupo São Martinho S.A. and Petrobras Biofuels, demonstrates the drop-in nature of our sweet sorghum products, and along with seed-based propagation, shorter growing cycles and lower water and fertilizer requirements of sweet sorghum relative to sugarcane, will serve as the basis for expanded adoption of this product line as a feedstock for ethanol and power production in Brazil and other markets. Based on our trial results to date and pipeline of products under development, we believe the adoption of our sweet sorghum hybrids could extend a mill s operations by approximately 60 days.

We also work with refining technology companies in the emerging cellulosic biofuels and bio-based chemicals markets. We believe that dedicated energy crops will enable both individual renewable energy projects and the industry as a whole to reach greater scale and sustainability, at lower costs, than other potential sources of biomass because of their yields, hardiness and relatively low input requirements. We believe our dedicated energy crop portfolio is compatible with a number of developing cellulosic biofuels conversion technologies and we are working with companies focusing on petroleum-refining technologies, such as UOP, LLC, as well as chemical companies, such as Europe-based Gruppo Mossi & Ghisolfi, or Gruppo M&G, to test our energy crops in their respective production processes. We have also conducted joint trials with, or sold seed to, AGCO Corporation, EdeniQ, Inc. and Hawai i BioEnergy, LLC, among others. We recently began a collaboration with Valero Services, Inc. to further evaluate feedstock supply strategies with dedicated energy crops.

Our dedicated energy crops also can be used to generate electricity in existing solid-fuel power facilities, such as coal-fired generating plants. We believe we will see a material increase in demand for biopower in the event that additional renewable energy legislation is passed in the United States, Europe or other countries that requires a higher percentage of generation from low-carbon sources or provides equal production incentives for the co-firing of biomass with coal, as are currently available for wind and solar power. Based on feedback from customers, partners and industry participants, we believe that our products can be used by existing growers, pellet mills and utilities, and can be cost competitive with existing biopower feedstocks, such as wood pellets.

Finally, due to the nature of biotechnology, we believe other crops can benefit from many of the traits we are developing for dedicated energy crops, such as traits that improve water use efficiency and salt tolerance. By combining genes into a series of stacks, we believe, and our initial results indicate, that we can achieve step-change improvements to the productivity of many row crops, including corn, soybean, rice and wheat. We have also generated many biotech traits specifically for cereal crops, such as rice, that increase grain yields and provide greater yield stability across different environments. We are inserting these and other traits into commercial rice varieties and plan to trial them in multiple locations in Asia this year.

Market Opportunity

The world continues to seek economically and environmentally sound alternatives to fossil fuel-based transportation fuels and power. We believe bioenergy is one of the few viable replacements for fossil fuels, particularly petroleum. Unlike other renewable technologies, biofuels are intended to utilize existing vehicles and transportation fuel infrastructure. Similarly, biopower, unlike wind and solar power, can provide baseload and dispatchable generation of renewable electricity. Despite the potential of biofuels, first-generation biofuel feedstocks have demonstrated their limitations in terms of scale, perceived competition with food production, net energy balance and dependence on government subsidies. Similarly, current sources of biomass, such as forestry residues and agricultural wastes, are limited in scale and are not optimized for use in bioenergy. They are also by-products derived from other processes and therefore subject to supply disruptions. Our dedicated energy crops provide an attractive combination of high yield density, high net energy balances, low input requirements, the ability to grow on marginal land and, as a dedicated source of feedstock, the potential to be tailored for specific production and refining processes. As a result, we believe that

dedicated energy crops will become a critical component for growth of the biofuel, bio-based chemicals and biopower markets.

Biofuels and Bio-Based Chemicals

Modern lifestyles and economies are highly reliant on petroleum and its by-products across a wide variety of industries, including light-duty transportation, aviation, diesel, shipping, lubricants, polymers, resins and cosmetics. According to the Energy Outlook Report published in April 2011 by the U.S. Energy Information Administration, or EIA, global oil production averaged 87.9 million barrels per day in the first quarter of 2011. The transportation fuel component of petroleum is valued at over $2 trillion per year, according to EIA. The vast majority of bio-based replacements for petroleum and petroleum-based chemicals are currently produced by fermentation of starch sources and free or soluble sugars primarily derived from corn and sugarcane, respectively. Commonly referred to as first-generation biofuels and bio-based chemicals, the production and conversion processes for these feedstocks are well-established. However, as the world looks to increase its consumption of biofuels and their derivatives, these first-generation feedstocks face challenges to meet increased demand.

In Brazil, which has recently been importing corn ethanol to meet its domestic demand, we believe that mill operators will seek alternatives that will allow them to increase production utilization of their existing mills beyond the average 200 days per year schedule in order to maximize their market opportunity. On a global basis, we expect petroleum consumption will be further replaced by products made from the conversion of non-food biomass into biofuels and bio-based chemicals. Today, there are more than 50 companies, including large multinational companies, such as BP p.l.c., Royal Dutch Shell plc, Total S.A. and Valero Energy Corporation, and independent companies, such as KiOR, Inc. and Coskata, Inc., focused on improving non-food biomass conversion technologies. According to a 2011 report published by International Energy Agency, or IEA, biofuel production could reach approximately 112 billion gallons per year by 2030, up from 26 billion gallons in 2010. To meet these targets, the IEA believes feedstock production would need to increase to 150 million acres in 2030, up from 75 million acres in 2010. We believe quadrupling the volume of biofuels while only doubling the feedstock production acres will require higher yielding second-generation feedstocks. Moreover, in the United States, the U.S. Department of Energy, or DOE, projects that biomass energy crops will represent the largest potential source of biomass feedstock in its August 2011 report titled, *U.S. Billion-Ton Update: Biomass Supply for a Bioenergy and Bioproducts Industry.* The DOE projects that acreage of perennial energy grasses and annual energy crops could reach from 35 to 46 million acres in 2022, depending on productivity gains.

Biopower

Globally, 7.92 trillion kilowatt-hours of electricity were generated from coal in 2007, or 42% of total global power generation, according to the EIA, which we estimate required 3.6 billion tons of coal. By comparison, a report released in May 2010 by EIA states that globally, approximately 235 billion kilowatt-hours of electricity were generated from biomass and wastes, or 57% of all renewable energy generation, excluding hydropower, which we estimate required 200 million dry tons of biomass. The conversion of biomass to power has traditionally been fueled by bio-based waste products and residues from the paper and timber industries. As is the case for biofuels, we believe this practice has limited the size, location, efficiency and scale of biomass power generation because power producers can not reliably secure long-term supplies of consistent quality feedstock. We believe we will see a material increase in demand for biopower in the event that additional renewable energy legislation is passed in the United States, Europe or other countries that requires a higher percentage of generation from low-carbon sources, or that incentivizes the co-firing of biomass. In comparison to other renewable energy sources, co-firing with biomass is an economical alternative on a levelized cost of energy, or LCOE, basis, taking into account capital cost, operating and maintenance and fuel costs. A 2008 report from Black & Veatch estimates co-fired biomass has a LCOE of $(1) to $22 per megawatt hour, versus wind with a LCOE of $59 to 128 per megawatt hour and solar photovoltaic with a LCOE of

$201 to $276 per megawatt hour.

Table of Contents

Food and Feed Crops

According to a 2010 report published by the International Service for the Acquisition of Agri-Biotech Applications, or ISAAA, approximately 366 million acres of biotechnology crops were planted globally in 2010. The global market value of biotechnology crop seeds was $11.2 billion, as reported in the same report by ISAAA. In the United States, we estimate, based on the price differential between conventional seed varieties and similar varieties with a trait, that retail premiums for traits and stacked trait combinations in row crops range from approximately $10 to $50 per acre, depending on crop and geography. As people in many countries become more affluent, they tend to consume more of their dietary protein in the form of meat and dairy products, driving the demand for animal feed grains higher. Therefore, greater production of food, feed, fiber and fuel will require higher crop productivity levels among all crops over time. In order to continue the productivity gains made in many crops over the past 75 years, and to do so in a more sustainable manner, we believe that advanced breeding methods, and biotech traits, in particular, will be required to produce higher performance crops that make more productive use of cultivated land, as well as to develop more robust, stress-tolerant crops that can grow under more difficult conditions and on marginal land. Our belief is consistent with historical yield improvements achieved via plant breeding and the adoption of agricultural biotechnology.

Our Solutions

We believe that nearly all bioenergy and bio-based chemical applications will ultimately depend on high yielding, low-cost, low-carbon, scalable, reliable and sustainable sources of feedstock. We believe biomass from our dedicated energy crops and traits have the potential to become the common denominator in a broad array of bio-based products, including ethanol, butanol, jet fuel, diesel-like molecules and gasoline-like molecules, as well as electric power and heat, and can enable the development of larger-scale processing facilities given the high yield density and conversion efficiency of dedicated energy crops. Specifically, our dedicated energy crops have the following characteristics, which we believe will make them a critical component in the large-scale production of these bio-based products:

Drop-in Products

In Brazil, there is a well-established biomass-to-biofuel industry. Our products are drop-in solutions because they can be planted, harvested and processed using existing agricultural equipment with little or no modification and are being developed to be drop-in for all conversion technologies using sugarcane or biomass feedstocks, facilitating their rapid adoption. In collaboration with Boa Vista/Nova Fronteira, a joint venture of leading ethanol producers Grupo São Martinho S.A. and Petrobras Biofuels, we recently completed a commercial-scale trial on approximately 250 hectares of our sweet sorghum, which was planted and harvested using existing planting and harvesting equipment, fermented into ethanol without retrofitting or altering the existing mill and the remaining biomass combusted for electricity production, using existing boilers.

In other countries, there are a wide range of cellulosic to biofuel conversion technologies currently being developed; however none have any appreciable market share at this time. To explore this opportunity, we have conducted smaller trials using our other energy crops with numerous industry participants involved in cellulosic biofuels and biopower production. For example, our products have been tested in the respective conversion processes of Amyris Biotechnologies, Inc., Choren USA LLC, EdeniQ, Inc., Gruppo M&G, ICM, Inc., Novozymes North America, Inc., ThermoChem Recovery International, Inc. and UOP, LLC (a Honeywell company), among others. These tests have confirmed that biomass from our energy grasses can be converted and processed into various fuels or bio-based products, and have provided data we have used to further enhance our energy crops for use with these conversion technologies. For similar purposes, DuPont Danisco Cellulosic Ethanol LLC, or DDCE, also plans to validate our products in their conversion process in 2011 as part of a publicly announced project with the University of Tennessee.

82

Table of Contents

High Yield Density

Our dedicated energy crops are developed to produce high biomass or sugar yields per acre. For cellulosic biofuels, bio-based chemicals and biopower, energy grasses can yield significantly more dry tons per acre per year compared to agricultural residues and woody biomass. This maximizes the productivity of available land and shortens the collection radius for a conversion facility of a particular size. As transportation costs can be a significant element in the total cost of biomass, we believe our high yield density crops will facilitate the construction of larger processing facilities because more biomass could be collected from a defined area of land around the facility. In turn, these larger facilities will benefit from economies of scale, resulting in lower production and capital cost per gallon produced.

Dedicated to Bioenergy

Unlike many other bioenergy feedstocks, our dedicated energy crops are currently not intended for other uses and are typically grown exclusively to be harvested as part of the bioenergy value chain, creating a stable supply that will appeal to owners of conversion technologies who will have invested significant capital in their infrastructure and will therefore require reliable and cost-effective feedstocks. Additionally, we are working to tailor our products to improve the efficiency and reduce the cost of certain conversion technologies. For example, we are developing a trait that reduces enzyme requirements to convert biomass into certain bio-based products. As high enzyme costs continue to be an issue for some biochemical cellulosic conversion technologies, this trait could be very valuable to refineries employing those technologies. We believe that our ability to deliver products such as these to our customers will facilitate adoption of dedicated energy crops over other forms of biomass.

Suited to Marginal Land

Our dedicated energy crops can grow in a broad range of environments, including those not well-suited for most food crops. For example, our sweet sorghum hybrids need substantially less water and fertilizer than sugarcane to grow to harvestable maturity. We are developing biotech traits that provide salt tolerance, drought tolerance and greater nitrogen use efficiency. We believe that by facilitating the use of marginal land, our crops will create opportunities for landowners who previously could not use their land as productively.

Scalable to Meet Demand

Our energy crops are highly scalable, allowing us to match our production with growing demand for our seeds on relatively short notice compared to sugarcane, which can take several years to scale up commercially. Our products are generally seed-propagated, similar to row crops such as corn and soybean, which makes them cost-effective to plant on a large scale using existing seed planting equipment. Several of our products also have shorter growing cycles and can be rapidly cultivated as compared to other feedstocks, such as trees or sugarcane. For example, sweet sorghum has growth cycles ranging from 90 to 140 days, while sugarcane has a 12 to 18 month growth cycle and a more laborious planting process because it is vegetatively propagated.

Competitive Strengths

We believe that we possess a number of competitive strengths that position us to become a leading provider of dedicated energy crop seeds and traits, including:

Commercial Products Available Today

We currently have a number of commercially available seed products, including sweet sorghum, switchgrass and high biomass sorghum. Our sweet sorghum hybrids have been successfully planted, harvested and processed into ethanol

and power in Brazil in commercial-scale projects. We have received the necessary governmental variety registrations for the sweet sorghum varieties we are marketing in Brazil for planting in the 2011-2012 growing season and we have begun selling seeds and have recently entered into purchase orders with customers in Brazil. Since other sugarcane-to-ethanol

mills face the same limits on production, we believe our demonstrated success in the 2010-2011 growing season will facilitate the rapid development of this market and enable the expansion of our market share in Brazil and in other geographies.

Attractive Business Model

Seed businesses traditionally incur significant research and development expenditures and have long product development time lines, but benefit from a combination of high gross margins, low capital expenditure requirements and intellectual property protection. Once developed, seeds require little physical infrastructure or production cost to be replicated for sale. Seeds are typically priced, however, based on a share of the value created to the customer as opposed to their cost of production. In general, seed costs to a grower are a relatively small percentage of their total production cost, but the performance of those seeds are critical to the growers economics. We believe we can position our business to take advantage of low production costs relative to the high value of our products to our customers.

Innovative R&D Technology Platforms

In order to maintain the strong position we have established with our combined strengths in germplasm and field-validated traits, we use our research and development expertise to continually improve our product offerings. To develop higher performing varieties and traits, we use several advanced research and development methods, including biotechnology, marker-assisted breeding and genomics. We believe that our innovative integrated breeding and biotechnology approach allows us to efficiently identify traits, effectively express these traits in crops, and more quickly commercialize new and improved seeds and traits for the market. We have both biotech traits and non-biotech traits. Our biotech traits for high biomass yield, nitrogen use efficiency, water use efficiency, drought tolerance and altered flower development, among others, have been successfully evaluated in the field; however, they are still several years away from commercialization. We believe we were one of the first companies to implement the practice of developing biotech traits using two test species, rather than just one, which allows us to more successfully select gene-trait combinations that enhance commercial crops. In order to capitalize upon our internal catalog of genetic information as well as information in the public realm, we developed our own proprietary software, including our Persephone genome viewer software, which serves as an important tool for locating, mapping and annotating genetic information in plants. This software program was recently licensed by a major agro-chemical company. We believe that our ability to continue to apply our advanced research and development methods will enable us to further enhance our proprietary germplasm and traits portfolios going forward.

Extensive Proprietary Portfolios of Germplasm and Traits

While many companies have developed portfolios of germplasm or traits, we believe we are one of the only companies focused on dedicated energy crops with large portfolios of both germplasm and field-validated traits, which includes thousands of specimens and breeding lines, as well as multiple pools of regionally adapted germplasm spanning northern temperate to tropical climates. From our field evaluations in rice of genes selected for their ability to promote enhanced traits in Arabidopsis, we have identified to date 35 genes and their relatives that significantly enhance agriculturally relevant traits. Having both germplasm and field-validated trait portfolios allows us to leverage the synergies created by combining the two and facilitates innovation in a way that would not be possible with germplasm or traits alone. We have leveraged our access to leading germplasm for sweet sorghum, high biomass sorghum, switchgrass and miscanthus through strategic collaborations with leading institutions and established in-house programs. We believe new market entrants would need to cultivate several generations of germplasm to achieve performance equivalent to our current product portfolio, by which time we believe we will have further evolved our germplasm. Therefore, we believe our proprietary position would be difficult and time-consuming to replicate. We also believe that we have established a strong intellectual property position in plant genes, traits and energy crop germplasm. As of August 31, 2011, we owned or had exclusive licensed rights to approximately 112

issued patents and approximately 209 pending patent applications in the United States and in various foreign jurisdictions.

Table of Contents

Management Team with Significant Industry Experience

Our Chairman, Walter De Logi, is one of the founders of Ceres. Dr. De Logi and Richard Hamilton, our Chief Executive Officer, have been with Ceres for 15 and 13 years, respectively, and have extensive experience in the field of agricultural biotechnology. Our experienced management team possesses a deep understanding of a variety of agricultural, chemical and industrial biotechnology businesses, including the seed industry, as well as our regional markets of Brazil, the United States and Europe. Our management team also includes top scientists and industry experts, some of whom have served in leadership roles at large, multinational corporations, served on advisory committees for the U.S. Department of Energy, led ground-breaking research studies and published numerous scientific articles.

Our Strategy

Our objective is to be the leading provider of dedicated energy crop seeds and traits to the renewable energy industry, including first-generation biofuels such as ethanol as well as cellulosic biofuels, biopower and bio-based chemicals by employing the following strategies:

Expand Our Presence in Brazil

Boa Vista/Nova Fronteira, a joint venture of leading ethanol producers Grupo São Martinho S.A. and Petrobras Biofuels, recently planted, harvested and processed a commercial-scale planting of our sweet sorghum products and produced both ethanol and power using existing agricultural equipment and processing infrastructure. We intend to use our recent success to promote brand awareness and expand our presence in Brazil by partnering with additional ethanol mills and other industry participants to conduct field trials and larger-scale commercial plantings as well as introduce new products into the Brazilian market. We will continue to position our seeds in the Brazilian market as a premium brand that incorporates the latest technology in energy crops. We are in active discussions with a number of other Brazilian ethanol producers for use of our sweet sorghum seeds for the 2011-2012 growing season. We believe the adoption of sweet sorghum in Brazil can follow similar rapid adoption curves seen for other seed and agricultural innovations such as hybrid corn in the United States and herbicide-tolerant soybean in the Americas. Our belief is based on the drop-in nature of our sweet sorghum products.

Expand Strategic Collaborations to Develop and Market Cellulosic Biofuels

We plan to play a significant role in developing the second-generation biofuels and bio-based chemicals market, which we believe represents a significant opportunity. Our switchgrass and high biomass sorghum products are specifically targeted at this market. We intend to establish new collaborations and expand upon our current collaborations with leading cellulosic biorefining companies, technology providers and project developers to further validate our products across various downstream technologies and to produce optimized feedstocks that are tailored to meet the specifications of existing and new refining technologies. Our products have been tested in the respective conversion processes of several companies, including Choren USA LLC, EdeniQ, Inc., Gruppo M&G, ICM, Inc., Novozymes North America, Inc., ThermoChem Recovery International, Inc. and UOP, LLC. DDCE also plans to validate our products in their conversion process. We have also conducted joint trials, or sold seed to, AGCO Corporation, EdeniQ, Inc. and Hawai i BioEnergy, LLC, among others. We recently began collaborating with Valero Services, Inc. to further evaluate feedstock supply strategies with dedicated energy crops.

Expand Our Business into New Markets

We intend to market our Blade Energy Crops brand as a symbol of quality, innovation and value across multiple biofuel, bio-based chemicals and biopower markets in a broad range of climates and geographies. We intend to use

our large portfolios of field-validated traits and germplasm, combined with our advanced technology platforms, to develop products for a wide variety of niches and seize upon future market opportunities, regardless of the fuel or chemical molecule (e.g., ethanol, butanol,

farnesene, biogasoline, biodiesel, biocrude), biochemical (e.g., bioplastics, lubricants) or engine choice (e.g., all electric, E85, E15, diesel, hybrid, plug-in hybrid).

Build New Relationships and Enhance Established Collaborations in the Global Biopower Market

Our switchgrass, high biomass sorghum and miscanthus crops can be used in power generation generally, and in particular, for co-firing with coal using the existing power generation infrastructure. To date, we have engaged in field trials of our energy crops with utility companies and independent power producers. We intend to cultivate collaborations with new parties, particularly those in Europe where we believe the market opportunity for biopower is more established today and the market need is more immediate in light of existing government regulations. We will work with utility companies and independent power producers to drive demand for our dedicated energy crops in the biopower market.

Continue Innovation and New Product Development

We are continuing to develop innovative solutions using a broad range of technological tools, including genomics, biotechnology and proprietary bioinformatics in order to produce crop varieties with improved yields and other performance characteristics. We believe we can accomplish these goals by finding innovative ways to utilize and combine traits and germplasm to further enhance our products. In addition, we will continue to develop varieties of seeds to meet the specific needs of growers in different geographic regions. For example, we have identified traits that will help optimize results for growers located in geographies with varying day lengths, rainfall, temperatures and soil composition (e.g., salt, aluminum and nitrogen).

Continue to Build Our Intellectual Property Portfolio

We believe we have established a strong intellectual property position in plant genes, traits and energy crop germplasm, based on the nature, size and filing dates of our patent portfolio and plant variety protection certificates. We believe we are one of the few companies focused on dedicated energy crops that have this combination of intellectual property assets. We use our integrated technology platforms to continually improve our products and develop innovations that will further strengthen our intellectual property position.

Our Technology Platforms

Our integrated technology platforms are a combination of existing genetic assets, specifically germplasm and traits, and competences in genomics, biotechnology and bioinformatics. Integration of these platforms allows us to improve our existing genetic assets as well as develop and commercialize new products from them. This combination of assets and research and development capability has resulted in one of the largest licensing transactions in the agricultural biotechnology industry, multiple competitive grants and collaborations, including a USAID grant to develop several traits in rice and one of the U.S. Department of Energy s first ARPA-E grants in 2009. For the year ended December 31, 2008, the eight months ended August 31, 2009, the year ended August 31, 2010 and the nine months ended May 31, 2011, we spent $20.3 million, $12.4 million, $16.7 million and $13.8 million, respectively, on research and development, with the main emphasis on traits and breeding.

Germplasm

We believe we have access to the most comprehensive germplasm collections for our dedicated energy crops, and have assembled a leading germplasm portfolio for dedicated energy crops. Our belief is based on the diversity and nature of the entries we have and how well they are characterized, which is the method by which different characteristics are evaluated and measured, and cataloged. Germplasm comprises collections of parental lines and

other genetic resources representing the diversity of a crop, the attributes of which are inherited from generation to generation. Germplasm is a key strategic asset since it forms the basis of plant breeding programs.

Our early entry into the energy crop industry has allowed us to acquire access to valuable germplasm through strategic collaborations with leading institutions. We believe our competitors would need to cultivate several generations of germplasm to achieve performance equivalent to our current product portfolio, by which time we will have further evolved our germplasm. Therefore, we believe that we have a strong proprietary position that would be difficult and time-consuming to replicate. We are currently involved in three major germplasm development collaborations, each with a history of successful research and germplasm development in an energy crop. When we sell varieties developed during such collaborations, or based on the results of such collaborations, we will typically pay our collaborators royalties on net sales of such varieties.

Switchgrass The Samuel Roberts Noble Foundation, Inc. In May 2006, we entered into an agreement with The Samuel Roberts Noble Foundation, Inc., or the Noble Foundation, a non-profit agricultural institute, for the development and commercialization of switchgrass. This relationship provides us access to extensive breeding infrastructure and exclusive licenses to elite switchgrass varieties, breeding lines and advanced cultivars. We have entered into exclusive license agreements with the Noble Foundation for three switchgrass varieties, which the Noble Foundation has licensed on an exclusive basis from the University of Georgia Research Foundation, or UGARF. Such agreements provide that we will file for intellectual property protection on such varieties at our expense in the joint names of the Noble Foundation and UGARF. The term of each such exclusive license agreement is, on a jurisdiction-by-jurisdiction basis, the longer of the duration of the intellectual property rights covering the licensed variety or 15 years from the first sale of the licensed variety in such jurisdiction. Pursuant to one agreement, we pay the Noble Foundation a royalty on sales that ranges from mid single digits to low double digits as a percentage of sales and a royalty on license income in low double digits as a percentage of license income if we grant sublicenses and minimum royalties creditable against royalties on sales and license income. Pursuant to the second agreement, we pay the Noble Foundation a royalty on sales in mid single digits as a percentage of sales, a royalty on license income in the low double digits as a percentage of license income if we grant sublicenses and minimum royalties creditable against royalties on sales and license income. The minimum royalties payable to the Noble Foundation under these agreements escalate on a yearly basis and range from $2,500 to $20,000 per year, per variety.

In addition, we have an outstanding exclusive option to enter into an exclusive license to two switchgrass varieties, which the Noble Foundation has the exclusive option to license, or to the extent exercised, an exclusive license from UGARF. Such option is exercisable at any time, by Ceres providing written notice to Noble, but no later than twelve months from the respective release date of the subject switchgrass variety. The respective release dates have not been set yet. The royalty rates on such varieties are not yet determined.

Further, pursuant to our Master Research Agreement, the Noble Foundation has agreed to grant us an exclusive world-wide license with the right to grant sublicenses to exploit commercially the results of our joint collaboration program, subject to paying the Noble Foundation a reasonable remuneration to be negotiated in good faith. There are no upfront license fees or milestone payments payable under any of our agreements with the Noble Foundation.

Miscanthus Institute of Biological, Environmental and Rural Sciences of Aberystwyth University. In April 2007, we entered into an agreement with the Institute of Biological, Environmental, and Rural Sciences of Aberystwyth University in Wales, U.K., or IBERS, for morphological characterization, genetic evaluation, and the development and commercialization of miscanthus species as an energy crop. This relationship provides us access to an extensive scientific research infrastructure. Pursuant to our Collaboration Agreement, IBERS has agreed to grant us an exclusive world-wide license with the right to grant sublicenses to exploit commercially the results of our joint collaboration program, subject to paying IBERS a reasonable remuneration to be negotiated in good faith, including exclusive licenses to miscanthus germplasm, breeding lines and varieties produced by IBERS, except that IBERS has a non-exclusive license in the United Kingdom to varieties resulting from the joint program. Unless otherwise agreed, license agreements for released

87

varieties will be based on a model license agreement, the duration of which will be until the expiration of the intellectual property rights covering the variety in a given jurisdiction, or in those jurisdictions in which the licensed variety is sold but no such intellectual property rights are obtained, until the tenth anniversary of the first sale of such variety in such jurisdiction. Pursuant to the model license agreement, we have agreed to pay royalties based on sales that range from low to mid single digits as a percentage of sales and royalties on license income at rate to be negotiated. To date, we have not entered into any specific license agreements with IBERS. There are no upfront license fees, milestone payments or minimum royalties payable under our agreement with IBERS.

Sorghum Texas A&M University. In August 2007, we entered into an agreement with The Texas A&M University System, or Texas A&M, for the development and commercialization of high biomass sorghum, sweet sorghum and selected related crops as energy crops, together with the discovery of molecular markers for certain traits. This relationship provides us with access to a highly regarded sorghum breeding program and the extensive sorghum genetics, breeding and genomics infrastructure of Texas A&M. This agreement provides exclusive options and licenses to elite sorghum breeding lines, parental lines, advanced hybrids and genomic markers. We have entered into two exclusive world-wide license agreements with Texas A&M for sorghum lines. The terms of such exclusive license agreements provide that the licenses expire on a country-by-country basis upon the expiration of all registered or patented intellectual property rights of Texas A&M covering the licensed line. Pursuant to such agreements, we pay Texas A&M a royalty on sales of varieties developed using the licensed line at a rate that decreases from low double digits to low single digit rates as a percentage of sales when the licensed line is combined with lines from other sources to develop a variety. We also pay Texas A&M a royalty in the low double digits as a percentage of license income if we grant sublicenses and minimum royalties creditable against royalties on sales. Royalty rates for our current commercial varieties developed using lines licensed from Texas A&M are in the mid single digits as a percentage of sales. Minimum royalties payable to Texas A&M under these agreements escalate on a yearly basis and range from zero to $5,000 per year. We also bear reasonable expenses for intellectual property protection. Further, pursuant to our Sponsored Research Agreement and Intellectual Property Rights Agreement, we have an option to obtain an exclusive world-wide commercial license with the right to grant sublicenses to the inventions and sorghum lines resulting from our sponsored program. To date, aggregate upfront license fees that have been paid or have become due to Texas A&M under these agreements have been $4,000. There are no milestone payments payable under our agreements with Texas A&M.

Our Traits

We are able to further improve the quality of our future product offerings by adding our proprietary traits to our germplasm collections. This can provide additional yield increases, greater water use efficiency, increased nitrogen use efficiency, salt tolerance, enhanced biomass-to-sugar conversion profiles and other improved characteristics. We believe, and our results have confirmed, that our integrated breeding and biotechnology approach allows us to efficiently identify traits, effectively express these traits in crops and more quickly commercialize new and improved seeds and traits for the market. We target traits with the greatest commercial potential in energy crops. We believe these traits will enable the bioenergy industry to scale more rapidly, by improving production and delivery economics, making greater use of marginal land, providing greater yield stability and increasing energy yield per acre.

We have both genetically engineered traits, or biotech traits, and non-biotech traits. In some instances, a gene introduced through biotechnology may confer more than one beneficial trait, such as salt tolerance and drought tolerance, or increased biomass yields through greater nitrogen use efficiency. Our strategy is to focus on genes and gene stacks that have shown large, step increases in performance, and whose benefits are largely maintained across multiple species.

Biotechnology allows us to precisely add traits not readily feasible through conventional breeding methods. In many cases, the same trait can be added to multiple crops with similar effect. For example, our genomics capabilities and

proprietary gene expression system have enabled us to expand from single genes and traits to groups of genes and traits, or stacks. We also have control over how, when and where genes are expressed in plants. This system includes using recombinant

DNA, cell culture, and related technology as well as gene transfer systems needed to create plants with biotech traits and optimized gene-trait combinations identified by our trait pipeline.

To develop biotech traits, we have utilized a novel research and development methodology. Similar to other companies, we use test or model plant systems to speed discoveries and reduce risk and technical uncertainty in the development of biotech traits. This includes evaluating gene function, regulation, interaction and potential usefulness. However, we typically utilize two test species, rather than just one, as is more customary in the industry. Our test or model plants represent the two principal evolutionary branches of flowering plants commonly known as dicots and monocots. This two-species approach allows us to more successfully select gene-trait combinations which enhance commercial crops. The small, fast-growing test plant called Arabidopsis is our model dicot, and rice is our model monocot. Rice is a grass species and a close relative of energy grasses. Our evaluations in Arabidopsis are completed at our headquarters in Thousand Oaks, California. Our high-throughput field evaluations of rice are conducted in China by the Institute of Crop Sciences of the Chinese Academy of Agricultural Sciences, or ICS. Pursuant to our Collaboration Agreement for rice, ICS performs transformation of rice with our genes, evaluates the transformed rice plants in the field according to detailed protocols, and reports results and observations to us. We own all results and intellectual property resulting from such activities. We pay ICS for the services pursuant to an agreed upon budget. The program is due to expire on December 31, 2015. We believe, and our results have confirmed, that by selecting genes that perform similarly in both our model plant species, we can readily identify superior genes among thousands of candidates. We believe that, given the large evolutionary distance between our model species, genes that function similarly in both will likely have application in a broad range of flowering crop plants. We have also identified superior genes by utilizing rice and Arabidopsis alone.

We also intend to stack gene-trait combinations, such as those conferring greater nitrogen or water use efficiency, together to amplify the benefits. We describe the combination of such complementary genes as synergistic trait stacks . This differs from many current approaches which produce incremental yield increases through the introduction of a single novel gene.

The commercial development of biotech traits in commercial crops is a multi-year process. Following transformation, when the optimized gene is inserted in a target crop, the resulting plants are evaluated in the greenhouse for one to two years, and then in the field to confirm results for two to four years. Following field trials, specific gene-trait combinations are selected and submitted for regulatory approval, or deregulation, a process that has historically taken one to three years in the United States and Brazil. Assuming these averages, we believe that we could introduce our first biotech trait or traits to the market in 2016 at the earliest.

We intend to price our traits based on the added value they create, which can vary by crop and geography. For our biotech traits, we are considering various pricing models, including separate annual trait fees per acre as well as blended seed and trait prices. For our commercial Skyscraper trait, a per-bag trait fee is included in the seed price. In row crops, we have licensed and intend to license our traits to existing market participants. These licensing agreements are expected to vary by crop, geography, the nature and economic benefit of the trait, and how well advanced the trait is within our pipeline. Future payments to us may be based on a percentage of sales or other performance metrics or milestones.

The following traits have been commercialized or are at various stages of development in our trait development pipeline. Individual commercialization timelines vary based on results of evaluations and the de-regulation or approval process. Skyscraper is a non-biotech trait and the remainder of the traits discussed below are biotech traits.

Skyscraper

Skyscraper is a commercial trait that provides a significant increase in biomass yields and is included in our proprietary high biomass hybrids ES 5200 and ES 5201. Developed through our collaboration with Texas A&M University, the Skyscraper trait delays flowering and extends the growth phase of the sorghum plant s lifecycle. Plants with the Skyscraper trait put more of their energy into

growing rather than reproducing (making seeds). Since Skyscraper was identified and developed using molecular marker technology, we have been able to rapidly incorporate it into our elite breeding lines.

High Biomass

We have a number of genes that have been shown to substantially increase biomass growth per plant. We are currently field-trialing four of these genes in switchgrass in four states in the United States. Second-year results have shown significant yield increases over experimental control plants. We plan to field test these genes in miscanthus and sorghum and then breed them into elite varieties. We are also creating synergistic trait stacks with these genes with the goal of achieving even greater biomass yields per plant. Yield per acre can also be increased through higher plant populations per acre. We are evaluating biotech traits that make plants grow more upright, allowing greater light capture at higher densities. We anticipate that this trait could allow growers to greatly increase the number of plants they sow per acre.

Nitrogen Use Efficiency

We have genes that increase biomass under normal and reduced nitrogen fertilizer conditions. In field trials, we have recorded steady yields on significantly less nitrogen fertilizer than normally used. In addition to greater efficiency in terms of tons of biomass per unit of nitrogen, reducing nitrogen fertilizer inputs would reduce greenhouse gas emissions, increase lifecycle energy ratios, reduce run-offs and water pollution, and lower production costs. We are currently field-testing four nitrogen use efficiency genes in switchgrass in four states in the United States. We also plan to field test these genes in miscanthus and sorghum. We are also developing synergistic trait stacks with these genes with the goal of increasing efficiency and yields.

Water Use Efficiency and Drought Tolerance

We have several genes that allow plants to use water more efficiently and/or recover from water deficits more readily. We are currently field-testing water use efficiency and drought tolerance genes in switchgrass that have resulted in the production of steady yields on less water in greenhouse tests. In addition to producing more tons of biomass per unit of water, we believe that in seasons of intermittent drought, this trait could provide greater yield stability for rain-fed crops as well as expand the geographic range where economic yields can be obtained.

Salt Tolerance

We have genes that have been shown in our greenhouse to provide tolerance and enhanced recovery to both acute and prolonged salt stress. If results are confirmed in the field, we believe that this trait could return salt-damaged acres to productivity and open more marginal land to bioenergy production. We also believe that salt tolerance is complementary to drought tolerance since salt stress tends to induce drought symptoms in plants. We are currently evaluating these and other salt tolerance genes in energy crops and rice in the greenhouse.

Aluminum Tolerance

We are developing genes that allow plants to withstand toxic levels of aluminum in the soil, a consequence of highly acidic soils, such as those found in Brazil. We believe that this trait could bring high aluminum soils into cultivation and open more marginal land to bioenergy production. We are currently evaluating these genes in multiple crops in the greenhouse.

Enhanced Conversion of Biomass to Fermentable Sugars

We have developed genes that enable multi-fold decreases in the cellulase enzyme cocktails required to release fermentable sugars from plant biomass. Reducing the recalcitrance of biomass to conversion could significantly reduce enzyme costs in certain biochemical conversion processes, and could further reduce both capital and operating costs for the biorefinery. For instance, a more easily

converted feedstock would impact installation costs for biorefineries since smaller holding tanks would be required for a given capacity. We believe therefore that this trait could be a key enabler of the large-scale use of biochemical processes and fermentation to produce biofuels and bio-based chemicals from cellulosic biomass.

Altered Flower Development

We are pursuing multiple approaches to regulate flower development for the purpose of increasing biomass and sugar accumulation, as well as rendering plants resistant to fungal diseases that infect flowers. Similar to the impact of our Skyscraper trait, preventing flowering or reproduction allows plants to put more of their energy into biomass growth. We are currently field-testing genes that impact different aspects of flowering, pollen production and seed development. We believe that by creating synergistic stacks of these traits we can amplify such effects. In addition, when stacked with our other traits, we believe these genes provide a stewardship advantage. In the unlikely event of an unintended outcross of a biotech trait to a wild plant, for instance, the presence of a stack that included genes that disrupt floral development and reproduction should put the resulting plant at a severe reproductive disadvantage, thereby limiting the spread of unintended progeny plants.

Enabling Technologies

We have developed or acquired licenses to certain technologies that we deem necessary or useful for the development of biotech traits, which while under development remain several years away from commercialization. Such licenses include a non-exclusive license from Monsanto to a transformation technology and certain other technologies, pursuant to which we will pay Monsanto a royalty on sales in the low single digits as a percentage of sales of products covered by the licensed patents. This agreement with Monsanto will terminate upon the expiration of the last patent under certain patent rights listed in the agreement. Such licenses further include an exclusive license with Cambridge University Technical Services Ltd., or CUTS, to a technology developed at the University of Cambridge (United Kingdom) to regulate gene activity, pursuant to which we will pay a royalty on sales in the low single digits as a percentage of sales of products covered by the licensed patents and a royalty in the low single digits as a percentage of license income. In addition, milestone payments of $75,000 have been made to date under the agreement, with an additional $100,000 expected to be paid to CUTS in fiscal 2012. The agreement with CUTS will expire on the date of the expiration of the last-to-expire patent licensed under the agreement.

Research and Development Programs

In order to maintain the lead we have established through our combination of superior germplasm and field-validated traits, we have developed research and development expertise that we believe will allow us to continue to improve our offerings over time. Our research and development investments have been significant, amounting to $19.2 million, $20.3 million, $12.4 million and $16.7 million in the years ended December 31, 2007 and December 31, 2008, the eight months ended August 31, 2009 and the year ended August 31, 2010, respectively, and $12.6 million and $13.8 million for the nine months ended May 31, 2010 and 2011, respectively. To develop higher performing seeds and traits, we deploy a variety of research and development methods and tools, including genomics, conventional and marker-assisted breeding, agronomy and other genomics-based technologies.

Genomics

Plant genomics involves the large-scale, simultaneous study of large numbers of genes, their effects and their interactions. One of our strengths in genomics involves our ability to organize the genetic data we amass into actionable information via proprietary relational databases, software and algorithms. We believe that both our technological capabilities and proprietary knowledge base in this area are highly advanced, and their application to both our breeding program, through the development of trait-linked molecular markers, and our trait development

program provides us a substantial competitive advantage.

Table of Contents

In general, we have focused our research efforts on determining gene function, gene regulation and finding which genes enhance desirable traits. In addition to identifying novel gene-trait combinations, our genomics tools allow us to work with large groups of genes and complex biological processes controlled by multiple genes. To date, we have sequenced more than 100,000 full-length copies of DNA, called cDNA, from a variety of plant species. We have also identified and characterized hundreds of promoters that can be important for achieving the optimum expression of traits. We believe we are one of the few companies focused on dedicated energy crops with large portfolios of both germplasm and field-validated traits. Having both germplasm and trait portfolios allows us to leverage the synergies created by combining the two and facilitates innovation in a way that would not be possible with germplasm or traits alone.

Conventional and Marker-Assisted Breeding

Plant breeding is the act of bringing together specific parent plants to produce a new offspring plant. This cross , as plant breeders call it, creates a new plant that will contain a mixture of the characteristics of its parents. The offspring are tested under various conditions to determine which has the superior combination of desired attributes. Further improvements are made by mating and continuing selection of superior parents and offspring through additional generations. Plant breeding allows researchers to identify plants with the most favorable combination of desired characteristics to serve as both parental lines and products.

In addition to conventional plant breeding, we believe that our genomics expertise makes the identification of proprietary molecular markers more direct and more comprehensive, which allows us to select key crop characteristics more rapidly and accurately than conventional plant breeding alone. Marker-assisted breeding integrates molecular biology and information systems with plant breeding to identify important genetic sequences and flags them so that they can be readily found in seeds or plant tissue at any stage of plant development. This platform allows us to track and select the most effective combination of genes, increase the number of progenies and breeding lines created at early stages in the breeding program, cull them using marker-based selection and, hence, make greater gains per breeding cycle. Markers are especially useful when seeking to combine multiple non-biotech traits into elite commercial lines.

We have developed thousands of SNP-based (single nucleotide polymorphism) molecular markers, which allow us to differentiate individual plants based on variations detected at the level of a single nucleotide base in the genome. SNPs allow us to automate many processes and are especially useful for hybrid breeding systems. Most importantly, we precisely map these SNPs onto the chromosomes of switchgrass, sorghum and miscanthus, and then link them to important traits by genetic analyses and then deploy them in our breeding programs using proprietary computational biology software systems. Furthermore, when an important gene is developed in one crop, we can often find the equivalent gene in another related crop using our genomics and molecular marker platforms to gain breeding advantages across crops. Our platform has also been shown to provide breeding advantages in food crops. For example, we have applied our proprietary technology to improve the quality and yield of food products since 2007 under a development and license agreement with Campbell Soup Company.

Agronomy

The performance of plant varieties and traits is influenced by the growing environment, which includes climate, day length, soil quality, pests, length of the growing season and crop management practices. We have established what we believe is one of the industry s largest network of field trials for energy grasses, based on the number of trials and geographic diversity. Extending across numerous hardiness zones and regions, including Europe, the Americas and Asia, this network provides regional performance data and market fit information to support our research and commercialization efforts.

92

Table of Contents

Our Current Products

We believe that a portfolio of energy crops will be required to produce biofuel, biopower and bio-based chemicals at greater scale than today. The mix of crops will be heavily dependent upon geographic and climatic considerations, soil quality, storage characteristics and harvest timing, among other considerations.

The following table summarizes our current products:

Crop	Status	Seed Varieties	Initial Market	Key Advantages
Sweet Sorghum	Commercial (2011-2012)	5 products registered*	Brazil	Season extension; fast growing; quick scale up; low water usage
High Biomass Sorghum	Commercial (2009)	ES 5200 with Skyscraper ES 5201 with Skyscraper	U.S.	High yields; fast growing; low water usage
Switchgrass	Commercial (2009)	ES 5140 ES 5150 ES 5155 EG 1101 EG 1102 EG 2101	U.S. and Europe	High yields; low water usage; perennial crop

* We selected five varieties for registration among more than ten varieties in our registration trials based on anticipated customer demand.

In addition, we have seed-propagated varieties of miscanthus under development as detailed in the following table:

Crop	Status	Seed Varieties	Initial Market	Key Advantages
Miscanthus	Under development	Seed-propagated varieties under development	U.S. and Europe	High yields; highly efficient, perennial crop

Table of Contents

The following table summarizes our lead biotech traits under development:

Target Crop	Traits	Status	Initial Market	Field Evaluations
Sweet Sorghum	High soluble sugars; high biomass/NUE+, WUE+, aluminum tolerance and insect resistance	Under development	Brazil	Greenhouse evaluations under way in 2011 in the U.S. We plan to apply for field evaluation permits for some traits in the U.S. and Brazil following the expected completion of greenhouse evaluations in 2012
High Biomass Sorghum	High biomass/NUE+, WUE+, enhanced biochemical conversion of biomass	Under development	U.S. and Brazil	Field evaluations to follow field validation in sweet sorghum
Switchgrass	High biomass/NUE+, WUE+, enhanced biochemical conversion of biomass	Under development	U.S.	Field evaluation permits granted in the U.S. Field validation ongoing in AZ, GA, TN and TX for high biomass/NUE+, WUE+, and to begin in 2011 (in TX) for conversion
Miscanthus	High biomass/NUE+	Under development	U.S.	Field evaluation scheduled for 2011 in U.S.; permits for field validation in AZ, GA, TN and TX pending
Row Crops	High grain yield, NUE+	Under development	U.S.	Greenhouse evaluations under way in 2011 and field observations scheduled for 2011 and 2012, in China.
Rice	High grain yield, NUE+, WUE+, salt tolerance	Under development	Asia	Field evaluations under way in 2011 in China, and scheduled for India in 2012

+ NUE = nitrogen use efficiency; WUE = water use efficiency

Sweet Sorghum

Sweet sorghum is a type of sorghum that accumulates free sugars in its stalk much like sugarcane. It is sown by seed, grows faster than sugarcane, and typically requires substantially less water and nitrogen fertilizer than sugarcane to grow to harvestable maturity. Sweet sorghum plants can be harvested in 90 to 140 days after sowing compared to 12 to 18 months for sugarcane. Because sweet sorghum is an annual crop, multiple harvests or crop rotations may be possible during the season compared to sugarcane, a perennial crop. This flexibility allows mill operators to use existing land more efficiently. In general, yields of fermentable sugars from improved sweet sorghum hybrids are comparable to sugarcane during our targeted harvesting period; however, the sugary juice is not well-suited to crystalline table sugar production today on a standalone basis. We believe that, based on our internal results and data from Brazil s Ministério da Agricultura, Pecuária e Abastecimento, sweet sorghum yields in Brazil can range from 25 to 100 wet metric tons per hectare with sugar content, or juice Brix values, from 10% to 20% today. This compares to typical values for sugarcane of 50 to 90 wet tons per hectare on average, and juice Brix values ranging from 14% to over 20%.

Table of Contents

In Brazil, sweet sorghum can be planted from October through January, and harvested from February to May, or later if conditions permit. This complements sugarcane, which is grown year-round, but harvested from April to December depending on weather and market conditions. In practice, sweet sorghum juice is extracted through crushing in existing sugarcane equipment, and then fermented to fuel. The leftover biomass, called bagasse, is combusted for biopower like sugarcane bagasse. Because sweet sorghum plants mature more quickly than sugarcane, and reach optimal sugar levels at different times of the year, existing sugar-to-ethanol mills can extend their operational season through the use of our sweet sorghum product by approximately 60 days. We also believe that sweet sorghum will facilitate the geographic expansion of sugar-based ethanol production into areas where sugarcane is not well adapted; for instance, where there is insufficient rainfall for sugarcane. Sweet sorghum is also advantageous during the scale up of new facilities because its seeds can be planted quickly and it has a shorter growing cycle than sugarcane. In contrast, sugarcane requires a laborious process to plant cuttings and, due to a low multiplication factor, typically requires years to provide sufficient feedstock for a mill to operate at full capacity. Therefore, we believe that sweet sorghum can enable new or expanded mill facilities to avoid long lead times or operate at their designed capacity during their first few years of operation.

Historically, sweet sorghum has received less improvement through modern breeding or biotechnology compared to commodity crops such as corn or soybean. Existing varieties were not developed for bioenergy, and generally have low-to-moderate sugar levels, are slower growing and have lower biomass than high biomass types. We are developing a number of improved sweet sorghum hybrids with high sugar content for immediate use in both existing markets in Brazil as well as new markets in the United States and elsewhere. In Brazil, we established agronomy trials throughout major ethanol production areas with mills, including ADM do Brasil Ltda., Usina Rio Pardo S.A. and Boa Vista/Nova Fronteira, a joint venture of Grupo São Martinho S.A. and Petrobras Biofuels. Most notably, Boa Vista/Nova Fronteira recently planted, harvested and processed a large-scale planting of our sweet sorghum products, and produced both ethanol and power. Our sweet sorghum harvested from the agronomy trial at ADM do Brasil Ltda. was used to produce table sugar at a neighboring mill using a blend of 14 parts sugar cane and one part sweet sorghum. These trials help us identify the best varieties and traits for different local conditions. They also allow us to better understand how different cultivation practices impact harvest, transportation and processing parameters. Based on the results of these trials, we have selected our best performing seed varieties for sale during the 2011-2012 season in Brazil.

Concurrently, we are developing, through marker-assisted breeding and biotechnology, a succession of improved hybrids and traits that offer producers increased yields, better pest management and greater tolerance to environmental stress, among other features. Since sweet sorghum is a fast-growing annual crop, with multiple breeding cycles possible each year, we believe that product development cycles will outpace improvements that can be made in sugarcane. It is much more efficient to breed sweet sorghum varieties and hybrids than commercial sugarcane varieties and hybrids, which suffer from chromosomal instability and other factors that slow the pace and increase the complexity of making improvements through plant breeding and biotechnology. In addition, we are currently working to develop lines of sweet sorghum with sucrose levels that are high enough to produce crystallized table sugar on a standalone basis.

High Biomass Sorghum

High biomass sorghum is a type of sorghum which is primarily developed for enhanced biomass yield potential as opposed to sugar content. As such, high biomass sorghum is ideally suited for the generation of renewable electric power and the creation of cellulosic biofuels. Like other types of sorghum, high biomass types are seed propagated, and generally require less water and nitrogen fertilizer than corn. As an annual crop, sorghum is harvested the year it is planted. This provides bioenergy facilities with a quick growing and flexible source of biomass, and a complementary feedstock to perennials, such as sugarcane, which may require 12 to 18 months before the first harvest, or switchgrass, which may require 12 to 24 months before the first harvest.

95

In 2009, we introduced our ES 5200 and ES 5201 products that contain our Skyscraper trait. These hybrids, developed through our partnership with Texas A&M University, are designed for single-cut production systems that endeavor to maximize per-acre yields while minimizing crop input and management expenditures. Using marker-assisted breeding, we expect to develop and commercialize sorghum hybrids that offer additional increases in biomass. We are also developing hybrids with biotech traits that offer increased yield, greater tolerance to environmental stress and enhanced processing characteristics. We expect to field trial our nitrogen use efficiency and high biomass biotech traits in sorghum under our ARPA-E grant project in 2012.

Switchgrass

Switchgrass is a perennial grass indigenous to North America that tolerates a wide range of environmental conditions and offers high biomass yield potential compared to many other perennial grasses and crop plants. It generally requires substantially less water and nitrogen fertilizer than corn, and can grow under semi-arid conditions. Like sorghum, switchgrass is seed propagated. As a perennial, switchgrass is generally not harvested for sale during the first year when the crop is being established. A properly managed stand of switchgrass may persist for a decade. However, we believe that producers will likely choose to upgrade to a new variety in approximately 5 to 7 years as new generations of switchgrass seeds with even higher yields or more desirable characteristics become available.

From 2009 to 2010, we introduced three proprietary products: EG 1101, EG 1102 and EG 2101. These high-yielding varieties, developed through our partnership with The Samuel Roberts Noble Foundation, Inc., have demonstrated higher biomass yields on average over comparable varieties depending on the variety and trial location. EG 1101 and EG 1102 have also shown improved establishment characteristics and better disease resistance when compared to the next best public varieties. Since switchgrass has been subjected to fewer breeding efforts than most commodity crops, we believe that rapid and significant improvements can be made through advanced plant breeding and biotechnology. Current yield increases observed in our breeding program support this view. We plan to introduce a succession of enhancements to our product portfolio, including additional increases in biomass yield and other agronomic and compositional improvements. We are currently field-testing biotech traits that improve nitrogen use efficiency and biomass yields. We are also field-testing drought-tolerance traits and traits that regulate floral development. We believe that switchgrass revenue will ultimately consist of both seed sales as well as annual trait fees.

Miscanthus

Miscanthus x giganteus is a tall perennial grass that grows well in cooler climates. Unlike switchgrass and sorghum, it is vegetatively propagated. It has been used as an energy crop on a small scale across Europe for two decades. The Miscanthus genus includes several perennial species that have potential as dedicated energy crops. The variety adopted in the United States and Europe to date, miscanthus x giganteus, is a sterile hybrid of *M. sinensis* and *M. sacchariflorus*. While biomass yields for this variety may exceed those of switchgrass within its region of adaptation, we estimate that, due to its vegetative propagation system, very large-scale production is not commercially feasible at this time since establishment costs are as much as 10 times higher than seed-sown switchgrass or sorghum.

In general, this miscanthus hybrid requires about the same water as corn, but up to two-thirds less nitrogen depending on crop management practices. As a perennial crop, miscanthus is generally not harvested for sale during the first year when the crop is being established. The focus of our work in miscanthus is to develop seed-propagated varieties that have the same high-yielding attributes of giant miscanthus, yet with establishment costs more comparable to other energy crops. We are also working on extending the region of adaptation. To these ends, we are collaborating with the Institute of Biological, Environmental, and Rural Sciences of Aberystwyth University in Wales, U.K. Under this collaboration, we have characterized miscanthus accessions across the native range of these species. These accessions are currently under evaluation for plant performance in multiple locations. The highest performing lines have been entered into our breeding program. As with switchgrass, we

96

Table of Contents

believe that continued germplasm improvement through marker-assisted breeding will increase biomass yield, bioenergy conversion yield and agronomic performance. We are also developing miscanthus with biotech traits that have been validated in switchgrass, rice and a model test plant. We are establishing field trials of our nitrogen use efficiency and high biomass traits in miscanthus in four states under our ARPA-E grant project, and also a joint U.S. Department of Energy and U.S. Department of Agriculture Biomass R&D Initiative, or BRDI, grant.

Row Crops

Due to the conservation across species of mechanisms underlying traits, other crops can benefit from many of the biotech traits developed for energy crops. This provides us with an additional outlet for our technology and genes, and mitigates the cost and risk of trait development. By combining these genes into a series of stacks, which can amplify the effects, we believe we may be able to make gains in the productivity in many row crops, such as corn, soybean, rice and wheat. Given the number of entrenched competitors in these markets and the high barriers to entry, we have chosen to be a technology provider or a trait provider to companies in this sector, rather than a direct producer of seeds.

We have already generated many biotech traits specifically for cereal crops such as rice that increase grain yields and provide greater yield stability across environments. We have genes that increase the number of seeds in a panicle (flower head), increase the filling of the seeds, and increase the seed yield per unit shoot mass (harvest index). Some of these have demonstrated double-digit yield increases, relative to average annual yield improvements for grain of approximately 1% as reported by Economic Botany. We also have a number of genes that make rice plants early flowering and smaller, or later flowering and larger. These flowering-time genes can increase grain yields as well. Flowering-time traits are important for rice breeders since growing season lengths vary widely among different rice cultivation regions. We have also identified genes in rice that reduce lodging, or the bending or breaking of the stalk, and provide more efficient hybrid production systems. We are moving these and other traits into commercial rice varieties and plan to trial them in multiple locations in Asia this year.

Seed Production and Operations

Seed companies typically develop and produce three types of commercial seed and plant lines: inbred, open-pollinated and hybrid. Inbred lines maintain the characteristics indigenous to the specific parent line over many generations. Open-pollinated products are reproduced from a group of plants. These are often populations of plants that are significantly different and vary over generations. Hybrid seeds, called the F1 generation, are the first-generation progeny of two different and distinct parental lines. These seeds often possess the hereditary characteristics of the parent lines as well as enhanced performance characteristics over the parent lines due to a genetic phenomenon called hybrid vigor . However, subsequent generations from hybrid seeds will not inherit equivalent enhanced performance characteristics of the hybrid F1 seed. Therefore, growers of hybrid crops generally purchase new seed from seed companies for each new planting.

The production of commercial-scale quantities of seeds requires the multiplication of seeds through a succession of plantings and seed harvests, and if the product is a hybrid, it is produced from parent lines that are mated under controlled conditions to produce commercial hybrid seeds. For perennials, like switchgrass, an established stand can produce saleable seed for multiple years. Annual seed crops like sorghum are planted for each seed harvest. In our experience, one acre of sorghum seed production has yielded saleable seed for 500 acres of commercial production, depending on the hybrid parents, and growing conditions. In our experience, one acre of switchgrass seed production has yielded saleable seed to plant approximately 80 acres of commercial production, depending on the variety and growing conditions. We are developing ways to increase seed yields and enhance seed quality, and have already made significant gains. In addition, in switchgrass, we have developed agronomic practices that allow us to harvest seed during the same planting year, thus making it possible to produce seed up to 12 months sooner than with common

production techniques.

Table of Contents

We believe that these improvements provide us with a competitive advantage in terms of both quality and also lower costs per unit than other seed and vegetative propagation systems.

We produce commercial seed either on leased land managed by us or with contract seed producers. Our current production sites are located in the United States and Puerto Rico as well as Argentina, Bolivia and Brazil. Seed production sites in both the northern and southern hemispheres allow us to schedule planting on a year round basis and reduce inventory requirements. This capability also enables us to scale up inventory to meet demand for a new product in the opposing hemisphere. During the season, we inspect seed fields for quality and anticipated seed yields. When ready, seeds are harvested using specialized techniques, cleaned, quality tested and packaged prior to sale to the customer. Healthy seed can remain saleable for several years if stored under optimal conditions.

In 2009, we purchased a 46,000 sq. ft. facility on a 32-acre parcel in Amarillo, Texas to serve as a seed warehouse and order fulfillment center. This site is used to receive, condition, treat, package, and warehouse our high biomass sorghum, switchgrass and sweet sorghum seed grown in the northern hemisphere. The capacity of this site is 200 to 250 units per hour of sweet sorghum or high biomass sorghum seed. This translates into more than 2,000 acre sales per hour or more than 80,000 acre sales of sweet sorghum or high biomass sorghum per weekly shift. Switchgrass capacity is 50 to 100 units per hour. This translates into more than 500 acre sales per hour or more than 20,000 acre sales of switchgrass per weekly shift. The seasonality of the seed business would allow the plant to operate at those capacities about six months a year. We currently warehouse and process 300,000 pounds of seed annually which is currently made up of 50% switchgrass, 35% high biomass sorghum and 15% sweet sorghum. We anticipate that we will be able to warehouse and process up to 10 million pounds of seed annually at this facility.

Due to the scalability described above, 300,000 pounds of switchgrass can plant approximately 50,000 to 60,000 acres of commercial switchgrass and 10,000,000 pounds of switchgrass can plant 1,500,000 to 2,000,000 acres of commercial switchgrass. For sorghum, those quantities of seed can plant approximately the same number of acres. As our seed sales increase, we believe we can rely on relationships with several providers who are capable of supplying additional quantities of seed based on market projections.

In Brazil, we have contracted with farmers to produce our seeds on irrigated acres. In addition, we are working with several third parties who have complete production and packaging capabilities to complement our own production capabilities. All of these seeds will be processed, packaged and warehoused by third parties who are experienced in these functions. This method of production is able to supply enough seeds to plant up to 250,000 hectares of commercial sweet sorghum. In the event we are able to generate orders in this range, we will plan to invest in our own facilities to be able to handle production amounts capable of planting 2,000,000 or more hectares of commercial sweet sorghum.

Sales and Marketing

We market our seed varieties and traits under the trade name Blade Energy Crops, or Blade. We are positioning Blade in the marketplace as a premium brand that represents the latest technology in energy crops. As a result, we price our proprietary products based on their added value, and not on production costs. Our seed prices are determined based on a series of complex considerations, including the best alternative use of land and perceived added value to growers and mill owners. Our pricing philosophy is to share a portion of the added value we create with our customers.

To gain greater brand awareness, we actively promote our products, capabilities and brand to the bioenergy and agricultural industries. In the United States, in addition to our direct relationship with bioenergy companies and project developers, we take a leading role in teaching the grower community about energy crops and related agronomic systems through the publication of crop management guides, speaking roles at industry events, trade show displays and local-level grower meetings. We also use these opportunities to build brand awareness and loyalty.

Table of Contents

We sell and distribute our seed products directly to our customers, which include ethanol mills, utilities, independent power producers, cellulosic biofuel companies, individual growers and grower cooperatives. We also work with technology providers and other industry participants such as equipment manufacturers, enzyme or fermentation technology companies, to encourage the use of our products. We believe that, compared to the corn or soybean seed industry, our sales force can be significantly smaller due to the more consolidated nature and more vertically integrated business models of the bioenergy industry.

We are building our customer base primarily by forming collaborations with biorefineries, power generators and biomass users at their existing, planned and future facility locations. We are in active discussions with a number of Brazilian ethanol producers for the 2011-2012 season in Brazil. The expected price range for our sweet sorghum seed in the Brazilian market is between $100 to $150 per hectare. In the United States, our seed sales to date have been driven primarily by pilot and demonstration-scale projects with advanced biofuel and biopower companies as well as growers and grower associations. Typically these multi-year collaborations include agronomy trials, harvest and handling evaluations, test conversions or burns, and various post-harvest assays. We conduct similar activities in Europe, although to a lesser extent than in the United States or Brazil at this time. In addition to informing our market development and research efforts, these trials allow participants in the value chain to gain confidence with the yields and other performance characteristics they should expect to see from our products. Given the emerging nature of energy crop production and the lack of publicly available energy crop data for many potential growing regions, we believe that our expertise in feedstock performance and production practices across many growing regions, combined with our extensive relationships throughout the bioenergy value chain, is a key competitive advantage.

In Brazil, we market and expect to sell our sweet sorghum products directly to ethanol mills, rather than to growers, which is the prevailing practice in the seed industry, as mill operators typically manage all major aspects of feedstock selection and production. According to the U.S. Department of Agriculture, there are over 400 sugar and ethanol mills in Brazil, which make up the country s over 600 million metric tons of crushing capacity per year. In the 2010 growing season, Anuario Da Cana 2010 estimated that the top 20 mill groups accounted for approximately 40% of the total crushing capacity. We believe this concentration creates an advantage to us as our focused sales and marketing team with be able to target a large amount of the Brazilian mill capacity by reaching out to the top mill groups. In addition, given the close-knit nature of the ethanol industry in Brazil, we believe that successful trials with several large mills will encourage other operators to evaluate and adopt our sweet sorghum products. We have completed trials with a number of large mill operators, including ADM do Brasil Ltda., Usina Rio Pardo S.A. and Boa Vista/Nova Fronteira, a joint venture of Grupo São Martinho S.A. and Petrobras Biofuels. We also have collaborations with international companies active in Brazil, including Amyris Biotechnologies, Inc. and Novozymes North America, Inc.

In the biopower market, our current activities encompass field trials, test burns and sales of commercial seed to project developers and growers who sell or intend to sell biomass to power plants or pellet mills. In the United States, we have worked on a trial basis with major utilities and large industrial producers of heat and power. We are also helping European utilities identify U.S. suppliers of biomass produced from our dedicated energy crops.

In Europe, we are also working with local institutions to build brand recognition and to advance our research, especially in miscanthus, through our collaboration with the Institute of Biological, Environmental and Rural Sciences of Aberystwyth University, or IBERS. Specifically, we are developing miscanthus crops through a research and development program that incorporates trials for germplasm covering hot, dry climates in the south through the colder, more northerly areas. This strategy is based on both scientific research and potential business opportunities. In addition to our collaboration with IBERS, we are a member of the Sustainable Bioenergy Centre of the UK s Biotechnology and Biological Sciences Research Council (BBSRC).

Our activities in cellulosic biofuels encompass a wide range of activities including field trials, co-evolution agreements, and commercial sales. Our products have been tested in the respective

99

Table of Contents

conversion processes of EdeniQ, Inc., Choren USA LLC, Europe-based Gruppo M&G, ICM, Inc., and UOP, LLC (a Honeywell company), among others. DDCE also plans to validate our products in their conversion process. We have also conducted joint trials with, or sold seed to, AGCO Corporation, EdeniQ, Inc. and Hawai i BioEnergy, LLC, among others. We recently began a collaboration with Valero Services, Inc. to further evaluate feedstock supply strategies with dedicated energy crops. We also work with refining technology companies to optimize feedstock for their refining processes. These collaborators include Novozymes North America, Inc. and ThermoChem Recovery International, Inc.

For the fiscal year ended August 31, 2010, Campbell Soup Company, USAID and ARPA-E represented 28.5%, 13.5% and 12.7% of our revenues, respectively. For the nine months ended May 31, 2011, Campbell Soup Company, Amyris Biotechnologies, Inc., USAID and ARPA-E represented 25.9%, 18.2%, 16.4% and 19.9% of our revenues, respectively.

Major Research Collaborations

Monsanto Company

In April 2002, we entered into a multi-year discovery and development collaboration with Monsanto Company focused on applying genomics technologies to identify genes that provide improvements in corn, soybean and certain other row crops. Pursuant to this agreement, Monsanto licensed rights to a portion of our trait discovery pipeline in certain row crops in exchange for license payments over several years. Monsanto also funded a research program with us, which was completed in 2007. The term of this agreement continues for the life of the last patent licensed pursuant to the agreement. The licenses granted to Monsanto are royalty-bearing, subject to patent protection. The intellectual property rights on inventions conceived by us pursuant to the collaboration vest in us and Monsanto has certain exclusive and non-exclusive licenses to the results of the collaboration activities for certain row crops. We believe the $137 million transaction with Monsanto, a market leader in crop biotechnology, validated our technology platforms and provided us a channel to begin to deploy our traits into corn, soybean and other commodity crops. We remain free under this agreement to develop and commercialize the genes and traits developed under this collaboration for deployment in our energy crops and certain other crops such as rice. With respect to corn, soybean and other row crops, we are free to license some of the genes discovered during this collaboration on a non-exclusive basis to third parties. We can also develop and exclusively license to third parties genes not covered under this agreement and which we have subsequently developed for use in corn, soybean and other row crops.

In connection with entering into the collaboration agreement, Monsanto also purchased 3,333,333 shares of our Series E Preferred Stock.

The Samuel Roberts Noble Foundation, Inc.

In May 2006, we entered into an agreement with the Samuel Roberts Noble Foundation, Inc., or the Noble Foundation, a non-profit agricultural institute, for the development and commercialization of switchgrass. This relationship provides us access to extensive breeding infrastructure and exclusive licenses to elite switchgrass varieties, breeding lines and advanced cultivars. We use our markers and other genomics technologies to expand the conventional and molecular breeding program in switchgrass at the Noble Foundation. The collaboration further encompasses the development of agronomic systems and management practices for switchgrass. Our funding commitments under this agreement are determined jointly with the Noble Foundation on a three-year project basis. All germplasm and plant varieties resulting from the joint program are jointly owned by us and the Noble Foundation, while the ownership of other intellectual property rights is allocated based on inventorship, except that Noble Foundation inventions resulting from projects to which we provide a financial contribution are jointly owned. We have exclusive rights to commercialize the results of the joint program. The Noble Foundation has agreed not to

collaborate with or perform any activities for the benefit of or grant any rights to third parties in the field of switchgrass without our prior written consent, subject to certain exceptions. This agreement expires in May 2026, unless terminated earlier

pursuant to customary contract termination provisions or under certain circumstances, for example if either party ceases substantially all activities in switchgrass, if the institutional mission, purpose or structure of the Noble Foundation changes substantially and adversely affects the Noble Foundation s ability to satisfy its obligations under the agreement, or if no active collaborative research projects exist for more than two years.

Institute of Biological, Environmental and Rural Sciences of Aberystwyth University

In April 2007, we entered into an agreement with the Institute of Biological, Environmental, and Rural Sciences of Aberystwyth University in Wales, U.K., or IBERS, for morphological characterization, genetic evaluation, and the development and commercialization of miscanthus species as an energy crop. This relationship provides us access to an extensive scientific research infrastructure and includes exclusive licenses to miscanthus germplasm, breeding lines and varieties produced by IBERS, except that IBERS has a non-exclusive license in the United Kingdom to varieties resulting from the joint program. We use our expertise in genomics-based technologies and plant breeding to expand the miscanthus breeding program at IBERS.

Our funding commitments under this agreement are determined jointly with IBERS on a project basis. All germplasm and plant varieties resulting from the joint program are jointly owned by us and IBERS, while the ownership of other intellectual property rights is allocated based on inventorship, except that IBERS inventions resulting from projects to which we provide a certain financial contribution are jointly owned. We have exclusive rights to commercialize the results of the joint program, except that IBERS has a non-exclusive license in the United Kingdom to varieties resulting from the joint program. IBERS has agreed not to collaborate with or perform any activities for the benefit of or grant any rights to third parties in the field of miscanthus without our prior written consent, subject to certain exceptions. This agreement expires on March 31, 2022, unless terminated earlier pursuant to customary contract termination provisions or under certain circumstances, for example if either party ceases substantially all activities in miscanthus, or if no active collaborative research projects exist for more than two years.

Texas A&M University

In August 2007, we entered into an agreement with The Texas A&M University System for the development and commercialization of high biomass sorghum, sweet sorghum and selected related crops as energy crops, together with the discovery of molecular markers for certain traits. This relationship provides us with access to a highly regarded sorghum breeding program and the extensive sorghum genetics, breeding and genomics infrastructure of Texas A&M University. This agreement provides exclusive options and licenses to elite sorghum breeding lines, parental lines, advanced hybrids and genomic markers. We fund the majority of the activities performed by Texas A&M University pursuant to our Sponsored Research Agreement. Ownership of intellectual property rights on results from the program work are allocated based on inventorship. Pursuant to our Sponsored Research Agreement and Intellectual Property Rights Agreement, we have an option to obtain an exclusive world-wide commercial license to results of the program. Texas A&M University has agreed not to conduct any activities in the field of our collaboration under an agreement which would grant rights to a third party during the term of our Sponsored Research Agreement. Our Sponsored Research Agreement expires on September 2, 2012, unless terminated earlier pursuant to customary contract termination provisions. Our licenses on results of the joint program survive termination of the Sponsored Research Agreement and survive until, on a country-by-country basis, the expiration of all registered or patented intellectual property rights of Texas A&M covering the licensed line.

Table of Contents

Research Activity Costs

At May 31, 2011, the future minimum payments for our budgeted costs of research activities under our collaboration agreements are as follows:

	(in thousands)
Remaining three months of fiscal year 2011	$ 1,154
2012	2,341
2013	440
2014 and beyond	108
	$ 4,043

Government Grant Awards

Grant awards help mitigate the costs and risks of developing new products and have historically allowed us to broaden the scope and speed of our research and development activities. Over the past five years, we have received several grants from the DOE, the USDA, the USAID, and BRDI program as well as state-level grants. These have allowed us to investigate the use of our biotech traits for increased yield, nitrogen use efficiency, flowering regulation, improved carbon sequestration and manipulation of cell wall composition in crops. Our grant funding totaled $3.0 million in the fiscal year ended August 31, 2010.

Our projects funded in whole or in part by grants during fiscal year 2010-11 include:

A $5.1 million U.S. Department of Energy ARPA-E grant to develop high biomass, low-input energy crops;

A $3.0 million USAID grant to develop several traits in rice for Asia;

A subcontract award of $2.2 million under a $25 million DOE Integrated Biorefinery grant awarded to Amyris Biotechnologies, Inc. to conduct multi-site trials of sweet sorghum;

A contract of $161,000 under a $250,000 Alabama Department of Economic and Community Affairs, grant awarded to Amyris Biotechnologies, Inc. to study the viability of sweet sorghum and sugarcane;

A $491,000 subcontract award from the DOE s BioEnergy Science Center to field trial traits to reduce recalcitrance and improve conversion of switchgrass to biofuels;

A subcontract award of $86,000 under a $4.7 million BRDI grant to the University of Tennessee together with DuPont Danisco Cellulosic Ethanol LLC to plant 1,000 acres of switchgrass to investigate agronomy and biomass supply chain logistics;

A $883,000 BRDI grant with Choren USA, LLC, a biorefining company, to investigate desirable biomass compositional characteristics for biomass gasification;

A $1.5 million BRDI grant with Rohm & Haas (now part of Dow Chemical) to investigate the production of methacrylate as a co-product in switchgrass; and

A contract of $22,000 under a $25 million DOE Integrated Bio-Refinery, or IBR, grant to UOP, LCC, a Honeywell company, to build a demonstration unit in Hawaii to convert cellulosic biomass into renewable transportation fuels.

Intellectual Property

Our success depends in large part on our proprietary products and technology for which we seek protection under patent, plant variety protection, plant breeders rights, copyright, trademark and trade secret laws. Protection of products, technology and trade secrets is also maintained using confidential disclosure agreements entered into by our employees, consultants and potential and actual third party collaborators. Protection of our technologies enables us to offer our customers and partners proprietary products unavailable from our competitors, and to exclude our competitors from practicing technology that we have developed or exclusively licensed from other parties. If competitors in our industry have access to the same technology, our competitive position may be adversely affected.

Table of Contents

We believe that we have established a broad intellectual property position in plant genes, traits and energy crop germplasm. As of August 31, 2011, we owned or had exclusive licensed rights to approximately 112 issued patents and approximately 209 pending patent applications in the United States and in various foreign jurisdictions. The patents for Ceres-developed inventions are set to expire beginning in 2020. Our patents or patent applications generally relate to compositions of matter for DNA and protein sequences, plants and plant parts, and methods of improving plants. Our patents and applications encompass more than 100,000 full-length, functionally annotated cDNA sequences from several species, hundreds of gene-trait associations, and hundreds of characterized promoters with specialized expression patterns. In addition, we hold dozens of applications for patents, Plant Variety Protection certificates and plant breeders rights for our commercial varieties, hybrids and inbreds, as well as for methods for the improvement, propagation, production, and use of dedicated energy crops. Our filings in foreign jurisdictions, such as Europe (approximately 25 pending patent applications, pending plant breeder s rights applications, and patents registered in specific countries) and Brazil (approximately 17 pending patent and plant variety protection certificate applications), are generally targeted to the products we plan to offer in those respective markets. We continue to file new patent applications, for which terms generally extend 20 years from the filing date in the United States. The duration of plant variety protection and plant breeder s rights protection varies among jurisdictions, e.g., the duration is 20 years from issue in the United States, 25 years from filing in Europe, and 15 years from grant of a Provisional Certificate of Protection in Brazil. Our registered and pending trademarks in the United States and in selected foreign countries include Ceres, The Energy Crop Company, Blade Energy Crops, Blade and Skyscraper.

We will continue to file and prosecute patent, plant variety protection certificate, plant breeders rights, and trademark applications in the United States and foreign jurisdictions, as well as maintain trade secrets as is consistent with our business plan in an ongoing effort to protect our intellectual property.

Significant Customers

For the fiscal year ended August 31, 2010, Campbell Soup Company, USAID and ARPA-E represented 28.5%, 13.5% and 12.7% of our revenues, respectively. For the nine months ended May 31, 2011, Campbell Soup Company, Amyris Biotechnologies, Inc., USAID and ARPA-E represented 25.9%, 18.2%, 16.4% and 19.9% of our revenues, respectively.

Competition

The renewable energy industry is rapidly evolving and new competitors with competing technologies are regularly entering the market. We expect to face competitors on multiple fronts. First, we expect to compete with other providers of seed and vegetative propagation materials in the market for sweet sorghum, high biomass sorghum, switchgrass and miscanthus. While the competitive landscape in these crops is limited at this time, we anticipate that as our products gain market acceptance, other competitors will be attracted to this opportunity and produce their own seed varieties. Second, we believe that new as yet unannounced crops will be introduced into the renewable energy market and that existing energy crops will attempt to gain even greater market share. Existing crops, such as corn, sugarcane and oil palm trees, currently dominate the biofuels market. Based on our experience with current and potential customers, we believe the primary competitive factors in the energy crop seed industry are yield, performance, scale, price, reliable supply and sustainability. As new products enter the market, our products may become obsolete or our competitors products may be more effective, or more effectively marketed and sold, than our products. Changes in technology and customer preferences may result in short product life cycles. To remain competitive, we will need to develop new products and enhance and improve our existing products in a timely manner. Our failure to maintain our competitive position could have a material adverse effect on our business and results of operations.

Our principal competitors may include major international agrochemical and agricultural biotechnology corporations, such as Advanta India Limited, The Dow Chemical Company, Monsanto Company, Pioneer Hi-Bred (DuPont), KWS and Syngenta, all of which have substantially greater resources to dedicate to research and development, production or marketing than we have. We also

Table of Contents

face direct competition from other seed companies and biotechnology companies, and from academic and government research institutions. New competitors may emerge, including through consolidation within the seed or renewable energy industry. We are unable to predict what effect evolution of the industry may have on price, selling strategies, intellectual property or our competitive position.

In the broader market for renewable energy, we expect to face competition from other potential feedstocks, including biomass residues from food crops, forestry trimmings and municipal waste materials as well as other energy crops. There are multiple technologies that process biomass into biofuels and we have yet to determine compatibility of our feedstocks with all of these processes. Our failure to develop new or enhanced products that are compatible with these alternative technologies, or a lack of market acceptance of our products as the common denominator in a broad array of bio-based products that are alternatives to petroleum based products, could have an adverse effect on our business. Significant developments in alternative technologies, such as the inexpensive and large-scale storage of solar or wind-generated energy, may materially and adversely affect our business in ways that we do not currently anticipate.

Government Policies and Incentives

There are numerous mandates, incentive programs, tax credits, support schemes and pending legislation that impact the establishment and growth of bioenergy markets. Some of the most relevant to our near term business opportunities are highlighted below:

Renewable Fuel Standard 2 The U.S. Energy Independence and Security Act of 2007, or EISA, increased the volume of renewable fuel required to be blended into transportation fuel to 36 billion gallons per year by 2022, representing an increase of 27 billion gallons from the 2008 target level of 9 billion gallons. EISA also established new categories of renewable fuel and set separate volume requirements for each one, including a 16 billion gallon per year target by 2022 for cellulosic biofuels. While these targets have been adjusted periodically to take into account cellulosic production capabilities, we believe this target demonstrates the U.S. commitment to significantly expand its use of cellulosic fuels. EISA required the Environmental Protection Agency to apply lifecycle greenhouse gas performance threshold standards to ensure that each category of renewable fuel emits fewer greenhouse gases than the petroleum fuel it replaces.

Biomass Crop Assistance Program Established by the 2008 U.S. Farm Bill, the Biomass Crop Assistance Program, or BCAP, provides risk mitigation and production incentives to encourage growers to produce dedicated energy crops. BCAP provides two categories of assistance: (i) matching payments at a rate of $1 for each $1 per dry ton paid by a qualified biomass conversion facility, in an amount up to $45 per dry ton, for a period of 2 years, and (ii) establishment payments up to 75% of costs of establishing a qualified perennial crop, including the cost of seed and stock, to growers who enter into contracts with the Commodity Credit Corporation, or CCC, to produce eligible biomass crops on contract acres within BCAP project areas. Annual payments, which are determined by CCC and based on local land rental rates, are also available for both annuals and perennials. Such payments are reduced if the biomass is sold to a conversion facility. We believe that BCAP will be advantageous to the growth of the switchgrass and miscanthus markets, in particular. The program will expire in 2012, unless extended as part of the next Farm Bill.

Renewable Electricity Standard Twenty-nine states plus the District of Columbia have Renewable Electricity Standards (also known as Renewable Portfolio Standards or RPS); seven additional states have voluntary goals. There is no federal standard currently. States with renewable portfolio standards require that a certain percentage (or absolute amount) of electricity be generated from renewable sources by a specified date. Under existing state regulations, these standards range from 8% to 40% of electricity production. To comply, companies must typically own a qualified facility and its output, purchase renewable energy credits or purchase bundled renewable electricity. Contracted, closed-loop biomass is an eligible renewable feedstock in all states with RPS.

Table of Contents

Renewable Energy Production Tax Credit Originally enacted by the U.S. Energy Policy Act of 1992, and updated by the American Recovery and Reinvestment Act of 2009, the Renewable Energy Production Tax Credit, or PTC, provides federal tax incentives for renewable energy projects. In general, the PTC reduces the federal income taxes of qualified tax-paying owners of renewable energy projects based on output. In 2010 the credit ranged from 1.1 to 2.2 cents per kilowatt-hour. Currently, a full PTC is available to dedicated biomass-fired facilities utilizing 100% closed-loop biomass, which is biomass grown exclusively for energy. A half-PTC is available for dedicated biomass-fired facilities utilizing open-loop biomass and other biomass sources, usually waste materials. The PTC is not available for co-firing coal with open-loop biomass, but it is technically available for co-firing closed-loop biomass with coal or open-loop biomass. We believe our customers can utilize our products to produce closed-loop biomass, thereby taking advantage of these tax credits to improve the economics of their operations. However, due to a legislative error, new PTC applications for co-firing with closed-loop biomass, whether with coal or in a dedicated biopower facility with open-loop biomass, cannot be approved since the approving agencies no longer exist despite multiple extensions of the biomass option by Congress and an existing federal budget line item for the program. We have joined utility industry representatives in lobbying Congress for new legislation to correct the error.

Renewables Obligation Certificates The United Kingdom, which is a potential export market for U.S.-grown biomass, favors biomass from energy grasses in its renewable electricity mandates. Renewables Obligation Certificates, or ROCs, are issued for each megawatt hour, or MWh, of renewable electricity generated. These ROCs are tradable. Compliance can be achieved by acquiring ROCs from generation or purchase, or paying a buy-out price. On August 31, 2011, the average price for ROCs was £45.37. ROCs are earned at various rates, with different categories of generation receiving a different number of ROCs per MWh generated. Co-firing of non-energy crop biomass, for instance, currently receives 0.5 ROCs/MWh, while a full ROC/MWh is earned from co-firing of contracted, closed-loop sources of biomass as well as open-loop sources of pre-approved crops, such as miscanthus. Switchgrass and high biomass sorghum are currently under review as possible pre-approved feedstocks. These rates and categories are subject to ongoing review by regulators. We believe that this regulatory scheme, especially when paired with U.S. incentive programs, provides attractive economics for U.S. growers with nearby access to seaports.

Regulatory Matters

Some of our products and operations are subject to complex regulations.

U.S. Regulatory Process for Our Biotechnology Products

Under the Plant Protection Act of 2000, regulatory approval is required before the introduction, including the environmental release, interstate movement, and importation, of certain genetically engineered organisms, including our biotechnology products. The primary U.S. regulatory agency overseeing field testing and deregulation for commercialization of our biotechnology products is the United States Department of Agriculture, or USDA. Currently, our products do not include pesticide or herbicide tolerant traits and, consequently, do not require the involvement of the Environmental Protection Agency. Moreover, our products are not intended for food or animal feed uses and, consequently, do not require the involvement of the Food and Drug Administration. The Biotechnology Regulatory Services, or BRS, within the USDA s Animal and Plant Health Inspection Service, or APHIS, has direct oversight of the field testing and deregulation of our biotechnology products.

In the typical product development process for our biotechnology products, approval by APHIS initially is required for field testing of a new product. Field testing of our biotechnology products is subject to a rigorous permit process that, if successful, results in authorization by APHIS for a defined field testing period in a specific location. As of August 31, 2011, we have been granted permits for field trials of certain of our biotechnology products in development in four field test locations, located

105

in Arizona, Georgia, Tennessee and Texas. We are currently trialing, or intend to trial, several traits in switchgrass, miscanthus and sorghum.

The permit application must contain detailed information about the product, including a description of the inserted genes, their origin, the purpose of the test, how it will be conducted and any actions taken to prevent the release of pollen or seed from the test site. In determining whether to grant a permit and what conditions to impose, APHIS considers any possible impacts of the field test on the environment and any endangered or threatened species. The permitting process for the establishment of initial field tests typically ranges from two to four months, but can be significantly longer for novel products or circumstances.

We must petition APHIS to deregulate any of our biotechnology products before being able to commercialize the product. The petition process is a multi-year process that varies based on a number of factors, including the extent of the supporting information required, the nature and extent of review by APHIS, including the type and scope of the environmental review conducted, and the number and types of public comments received. Deregulation of a product is not a guaranteed outcome when a petition to deregulate a biotechnology plant is submitted to APHIS.

The process for obtaining favorable action on petitions for non-regulated status, as well as permits for field testing, has become more complex and time consuming in recent years. In October 2008, APHIS issued proposed regulations that would significantly revise the permitting process; however whether or when APHIS will issue final regulations is not known.

We are a founding member of the Excellence Through Stewardship, or ETS, organization, which encourages implementation of biotechnology-derived product stewardship practices, including third-party audits of members to verify that stewardship programs and quality management systems are in place and consistent with ETS initiative. We successfully completed our initial ETS third-party audit in December 2009. We continue to conduct yearly internal audits and a third-party audit every three years.

Brazilian Regulatory Process for Our Biotechnology Products

In Brazil, the approval of biotechnology products is regulated by the National Technical Commission of Biosafety, Comissão Técnica Nacional de Biossegurança, or CTNBio, under the Ministry of Science and Technology. CTNBio is composed of 27 members with specialists with scientific and technical knowledge from four different areas, including specialists in animal, plant, environment and health (12 members), ministerial representatives of the federal government (9 members) and specialists from other areas such as consumer defense and family farming (6 members) that meet once per month to review applications. CTNBio has developed guidance describing the information required as part of an application for commercial approval of a biotechnology product. Once an application is submitted it is analyzed by a team of reviewers who then present the application to the broader committee for a decision. The review team or the committee can request additional information from the applicant. The application process is generally an iterative process with the applicant providing additional data for review and consideration at subsequent monthly meetings until all the reviewers and the committee s questions have been resolved. During the review process, CTNBio will evaluate the need for further environmental impact assessments. CTNBio may conduct public hearings on certain products to seek additional input. CTNBio may refer applications to, among others, the National Biosafety Council, or CNBS, to review any socio-economic aspects or national interests that may be implicated. We are not currently subject to CTNBio oversight as our current product offerings in Brazil do not include biotechnology products. However, we do anticipate introducing biotechnology products in Brazil in the future. At such time, we will be subject to the approval processes dictated by CTNBio and a Certificate of Quality in Biosafety, or CQBs, must be obtained from CTNBio prior to the commencement of field trials.

European Regulatory Process for Our Biotechnology Products

The European Union, or EU, has established a legal framework for activities with genetically modified organisms, or GMOs, and some of our biotechnology products will fall within the scope of this legislation. The GMO framework aims to provide guarantees for the safety of human health and the

environment during research, development and commercial deployment of GMOs, to allow consumers to make an informed choice and to secure the availability of differentiated agronomic options.

Development field trials and commercial introduction are governed by European Directive 2001/18/EC on the introduction into the environment of GMOs. This Directive requires activities with GMOs in the open environment to obtain a mandatory approval before the activity can be initiated and provides principles for environmental risk assessment and evaluation of the risk assessment by independent expert panels.

The procedure for field trials requires submission of an application substantiated with scientific information to the national authority of the Member State within whose territory the experimental release is to take place. This authority will typically request the advice of a national expert panel and decide whether the trial can proceed, possibly with additional conditions. While the procedure is harmonized, there are differences between Member States.

Under Directive 2001/18/EC, a company intending to market a GMO must first obtain a written authorization to this end. In this case, the authorization procedure for placing the GMO on the market involves all Member States as an authorization implies the free movement throughout the EU territory. The application is first submitted to the competent national authority of an EU Member State. The notification must include a full evaluation of the environmental risks. Having received the notification, the national authority must issue an opinion which will take the form of an assessment report . In the event of a favorable opinion, the Member State that produced the assessment report, informs the other Member States via the European Commission. The other Member States and the Commission examine the assessment report and may issue observations and objections.

If there are no objections by other Member States or by the European Commission, the competent authority that carried out the original assessment authorizes the placing on the market of the product. The authorized product may then be placed on the market throughout the European Union in conformity with any conditions set out in the authorization. The authorization has a maximum duration of ten years and may be renewed.

If objections are raised, the procedure provides for a conciliation phase among the Member States, the Commission and the notifier. The objective of this phase is to resolve the outstanding questions. If at the end of the conciliation phase the objections are maintained, a decision must be taken at European level. The Commission first asks for the opinion of the European Food Safety Authority (EFSA), composed of independent scientists, highly qualified in the fields associated with medicine, nutrition, toxicology, biology, chemistry and other similar disciplines. The Commission then presents a draft decision to the Regulatory Committee composed of representatives of the Member States for an opinion. If the Committee gives a favorable opinion, the Commission adopts the decision. If not, the draft Decision is submitted to the Council of Ministers for adoption or rejection by qualified majority. If the Council does not act within three months, the Commission shall adopt the decision.

We do not currently target any use as or inclusion in food or feed products. While systems will be in place to direct production to the intended uses, unintended as well as unavoidable uses will be taken into account when seeking regulatory approvals for our products. In case our products or derivates thereof could end up in food or feed, then additional legal requirements will have to be considered, in particular Regulation (EC) No 1829/2003 on genetically modified food and feed that applies for the placing on the market of GMOs for food and feed use and food and feed containing GMOs, consisting of such organisms or produced from GMOs.

The Regulation puts in place a centralized, uniform and transparent EU procedure for all applications for placing on the market, whether they concern the GMO itself or the food and feed products derived therefrom. This means that business operators may file a single application for the GMO and all its uses: a single risk assessment is performed and a single authorization is granted for a GMO and all its uses (cultivation, importation, processing into food/feed or industrial products). If one of these uses concerns food or feed, all the uses may be treated under

Regulation 1829/2003.

The European regulatory framework for GMOs has been developing since its introduction in 1990. The European Commission and Member States review and adapt the framework regularly. Several scientific advisory bodies, most prominently the EFSA, update their guidance notes and recommendations on data requirements. Finally, the political acceptance of biotechnology crops is known to differ considerably between Member States and between consecutive governments in a Member State. Therefore, it is not possible to predict the outcome of any application made in the EU.

We are not currently subject to the GMO oversight as our current product offerings in the EU do not include biotechnology products. However, we do anticipate introducing biotechnology products in the EU in the future.

Other Regulation

Phytosanitary Certification. Nearly all countries, including the United States and Brazil, and many local jurisdictions, require phytosanitary certificates to import seed or plant materials. These certificates, issued by government agricultural inspectors where seeds or plants are produced or packaged, attest that seeds or plants are clean, free of prohibited impurities and have been tested for the presence of various pathogens that can be carried in or on the seeds or plant tissue. We obtain such certificates when necessary, including in connection with the use of our seeds for research or sample testing.

Seed and Plant Variety Registration. Seed and plant variety registration provides an organized system for protecting seed and plant variety owners as well as growers from misleading marketing practices. Registration of seed and plant varieties is voluntary in the United States under the Federal Seed Act. Applicants must attest that their product is phenotypically unique; that is, verifiably different from varieties that currently exist in the market. A similar system exists in Brazil, the European Union and many other countries; however, the registration process itself may be more regulated, and is sometimes required prior to the commencement of seed sales. In Brazil, sweet sorghum requires two seasons of trial data to be registered, which must be completed prior to the commencement of sales. We have completed our first season of trial data and are substantially complete with the second season of trial data. We have received the necessary governmental variety registrations for the sweet sorghum varieties we are marketing in Brazil in the 2011-2012 growing season. Similarly, in the European Union, two years of field trials with a national authority are required to receive registration for all member states. Registration is required prior to the commencement of sales for new high biomass sorghum and sweet sorghum seed varieties; there is no registration requirement for switchgrass or miscanthus at this time.

Regulation of Laboratory and Greenhouse Facilities. The use of genetically engineered organisms in laboratory and greenhouse facilities is subject to rules intended to ensure that such organisms are handled safely and do not pose an unacceptable risk to human health or the environment. The National Institute of Health s Guidelines for Research Involving Recombinant DNA Molecules, or the NIH Guidelines, describe methods for the safe handling of transgenic materials in laboratory settings. Appendix P (Physical and Biological Containment for Recombinant DNA Research Involving Plants) of the NIH Guidelines describes specific requirements for facilities and practices to meet containment standards for each of the different biosafety levels from lowest containment (designated BL1-P) through the highest containment (designated BL4-P). Appendix P is also used as a guideline for practices relating to conducting experiments to construct, develop, and propagate genetically engineered plants. Our current biosafety level is BL1-P, which requires a low level of containment for experiments involving our biotechnology plants.

Hazardous Materials. Our laboratory and field activities inherently involve the use of potentially hazardous materials, which are subject to health, safety and environmental regulations. Our infrastructure, procedures and equipment are designed to meet our obligations under these regulations. We perform recurring internal and third-party audits and provide employees ongoing training and support, as required. All employees must comply with safety instructions and procedures, which are codified in our employment policies.

Table of Contents

Employees

As of August 31, 2011, we had approximately 90 full-time employees. Of these employees, approximately 56 were engaged in research and development. Our employees are located in the United States and Brazil. We consider our employee relations to be good. None of our employees are represented by a labor union or collective bargaining agreement.

Facilities

Headquarters

Our headquarters is located in Thousand Oaks, California, where we lease approximately 49,000 square feet of office, laboratory and greenhouse space. The lease expires on March 31, 2014. We have one option to extend the lease for an additional term of five years, provided that we give notice to the landlord at least six months prior to the expiration of the initial term of the lease.

College Station Research Center

Our plant breeding and field research center is located in Burleson County near College Station, Texas. Completed in 2009, the site consists of approximately 12,000 square feet of office, laboratory, warehouse and greenhouse space. The research center sits on approximately five acres of leased land, which we hold the option to purchase. Adjacent to our facility, we also lease approximately 200 acres of farmland under a five-year lease expiring in 2013, with two options to extend this lease by five years each.

Amarillo Operations

Our primary U.S. seed warehousing, conditioning, packaging and order fulfillment facility is located in Amarillo, Texas. Purchased in 2009, the site consists of approximately 46,000 square feet of office and warehouse space on a 32-acre parcel. We currently warehouse and process 300,000 pounds of seed annually and anticipate that we will be able to warehouse and process up to 10 million pounds of seed annually at this facility.

Brazil

We lease an office located in the Municipality of Piracicaba, São Paulo, Brazil. We have an option to extend the lease for an additional term of five years. We also have an option to purchase the property. The lease expires on December 31, 2011. While we currently contract seed warehousing, conditioning, packaging and fulfillment services to support our trialing and commercialization activities, we expect to add a dedicated Ceres breeding and seed production facility in South America.

We believe that our facilities in California, Texas and Brazil, including our planned breeding and seed production facility in South America, will adequately meet our needs in the near term.

Legal Proceedings

We are not currently a party to any material litigation or other material legal proceedings.

Table of Contents

MANAGEMENT

Executive Officers and Directors

The following table sets forth information regarding our executive officers, directors and key employees as of August 31, 2011.

Name	Age	Position
Board of Directors:		
Walter De Logi, Ph.D.(1)(2)	60	Chairman of the Board
Pascal Brandys(2)	52	Director
Raymond Debbane	56	Director
Richard Flavell, Ph.D.	67	Director, Chief Scientific Officer
Robert Goldberg, Ph.D.(2)	67	Director
Richard Hamilton, Ph.D.	49	Director, President and Chief Executive Officer
Thomas Kiley(1)	68	Director
Cheryl Morley	56	Director
David B. Krieger	38	Director
Edmund Olivier(1)(2)	73	Director
Other Executive Officers and Key Employees:		
Paul M. Kuc	49	Chief Financial Officer
Wilfriede van Assche	56	Senior Vice President, General Counsel and Secretary
J. Jefferson Gwyn, Ph.D.	52	Vice President of Breeding and Genomics
Michael Stephenson	69	Vice President of Operations
Roger Pennell, Ph.D.	52	Vice President of Trait Development

(1) Member of Audit Committee

(2) Member of Compensation Committee

(3) Member of the Nominating and Corporate Governance Committee

Our executive officers are elected by, and serve at the discretion of, our board of directors. There are no family relationships among any of our directors and executive officers.

Board of Directors

Walter De Logi, Ph.D., Chairman of the Board

Dr. De Logi is one of the founders of Ceres and served as our President and Chief Executive Officer from the founding of the Company in 1996 until September 2002. Dr. De Logi has served on our board of directors since our inception and as Chairman of the Board since 2002 to present. From 1986 to 1996, he was the Chief Executive Officer of Plant Genetic Systems, an eminent first-generation plant biotechnology company that was sold to Hoechst Schering AgrEvo GmbH, now part of Bayer AG in 1996. He holds an M.B.A. from Harvard University and a Ph.D. from the California Institute of Technology. Dr. De Logi was nominated to serve on our board of directors pursuant to the

terms of the Voting Agreement. Dr. De Logi brings extensive experience in the plant biotechnology business to the board of directors.

Pascal Brandys, Director

Mr. Brandys has served on our board of directors since December 1997. Mr. Brandys is the President and managing member of Biobank Technology Ventures, LLC, an early-stage life sciences investment company which he co-founded in 2001. He was previously a co-founder of the genomics company Genset S.A., and also served as its Chairman and Chief Executive Officer from 1989 to 2000. Mr. Brandys is currently a director of several private companies and previously served as a

director of Ilog S.A and Innogenetics N.V. He holds an M.S. in Economic Systems from Stanford University and is a graduate of the Ecole Polytechnique of Paris. Mr. Brandys brings extensive business experience in the genomics field and experience as an executive and an investment professional to our board of directors.

Raymond Debbane, Director

Mr. Debbane has served on our board of directors since March 1998. Mr. Debbane has served as President and Chief Executive Officer of The Invus Group, LLC, a New York based multi-billion dollar investment firm which is the exclusive investment advisor of Artal Luxembourg S.A., a shareholder of Ceres, since 1985. Prior to forming The Invus Group in 1985, Mr. Debbane was a manager and consultant for The Boston Consulting Group in Paris, France from 1979 to 1985. He is currently a director of Artal Group S.A. and Lexicon Pharmaceuticals, Inc., as well as a number of private companies in which Artal or Invus, L.P. is an investor. Mr. Debbane is also the Chairman of the board of directors of Weight Watchers International. He holds an M.B.A. from Stanford Graduate School of Business, an M.S. in Food Science and Technology from the University of California, Davis and a B.S. in Agricultural Sciences and Agricultural Engineering from American University of Beirut. Mr. Debbane was nominated to serve on our board of directors by Artal Luxembourg S.A. pursuant to the terms of the Voting Agreement. Mr. Debbane brings extensive business and finance experience to our board of directors, as well as experience as a director of a number of companies.

Richard Flavell, Ph.D., FRS, CBE, Chief Scientific Officer and Director

Dr. Flavell joined Ceres in 1998 as Chief Scientific Officer and has served on our board of directors since June 2009. Since 2001, Dr. Flavell has been an Adjunct Professor in the Department of Molecular, Cellular and Developmental Biology at the University of California, Los Angeles. From 1987 to 1998, Dr. Flavell was the Director of the John Innes Centre in Norwich, England, a premier plant and microbial research institute. He has published over 200 scientific articles, lectured widely and contributed significantly to the development of modern biotechnology in agriculture. Dr. Flavell is an expert in cereal plant genomics, having produced the first molecular maps of plant chromosomes to reveal the constituent sequences. In 1999, Dr. Flavell was named a Commander of the British Empire for his contributions to plant and microbial sciences. Dr. Flavell received his Ph.D. from the University of East Anglia and has been a Fellow of European Molecular Biology Organization since 1990 and of The Royal Society of London since 1998. Dr. Flavell brings extensive experience and knowledge of plant biotechnology to our board of directors.

Robert Goldberg, Ph.D., Director

Dr. Goldberg is a Distinguished Professor of Molecular, Cell and Developmental Biology at the University of California, Los Angeles and a founder of Ceres. He has been a Professor at the University of California, Los Angeles since 1976, teaching genetic engineering and studying the genes that are required for seed formation. Dr. Goldberg is a member of the National Academy of Sciences and has consulted extensively in the agriculture and biotechnology industries. Dr. Goldberg has served as a director of Ceres since 1996. Dr. Goldberg received his Bachelor s Degree in botany from Ohio University, his Ph.D. in plant genetics from the University of Arizona, and was a Postdoctoral Fellow in developmental biology at the California Institute of Technology. Dr. Goldberg brings extensive experience in the agriculture and biotechnology industries to our board of directors.

Richard Hamilton, Ph.D., President, Chief Executive Officer and Director

Dr. Hamilton joined Ceres in 1998. He served as our Chief Financial Officer until September 2002, at which time he was appointed President and Chief Executive Officer. He has served on our board of directors since 2002. In addition to his leadership role at Ceres, Dr. Hamilton sits on the Keck Graduate Institute Advisory Council and he is a founding member of the Council for Sustainable Biomass Production. He has served on the U.S. Department of

Energy s Biomass Research and

Table of Contents

Development Technical Advisory Committee and has been active in the Biotechnology Industry Organization where he has served as Vice Chairman of the organization, chaired its Food and Agriculture Governing Board and served in other leadership roles. From 1992 to 1997, Dr. Hamilton was a principal at Oxford Bioscience Partners, one of the leading investors in the genomics field and a founder of Ceres. From 1990 to 1991, he was a Howard Hughes Medical Institute Research Fellow at Harvard Medical School. Dr. Hamilton holds a Ph.D. in molecular biology from Vanderbilt University. Dr. Hamilton brings extensive management experience and renewable energy industry expertise to our board of directors.

Thomas Kiley, Director

Mr. Kiley has served as a director of Ceres since May 2003. He became the first general counsel of Genentech in February 1980 and later served as its vice president for corporate development until 1988. Previously, Mr. Kiley practiced intellectual property litigation as a partner of Lyon & Lyon from June 1969 until January 1980. Mr. Kiley has served as a director of Geron, Inc., a publicly traded biopharmaceutical company since July 1996 and Transcept Pharmaceuticals, Inc., a publicly traded pharmaceutical company since February 2004, and several privately-held development stage companies. He received his B.S. in chemical engineering from The Pennsylvania State University and his J.D. from The George Washington University School of Law. He is a member of the State Bar of California. Mr. Kiley brings extensive experience as an intellectual property attorney and director of other public companies to our board of directors.

David B. Krieger, Director

Mr. Krieger has served as a director of Ceres since February 2011. Mr. Krieger has been a managing director at Warburg Pincus LLC since 2006, which through its affiliates is a shareholder of Ceres, and has been with Warburg Pincus since 2000. Prior to joining Warburg Pincus, he worked at McKinsey & Company in Atlanta and Europe from September 1995 to May 1998. He is currently a board member of Black Swan Energy Ltd., Canbriam Energy Inc., Fairfield Energy Limited, Kosmos Energy Ltd., MEG Energy Corp. and Osum Oil Sands Corp. He received a B.S. in Economics from the Wharton School of the University of Pennsylvania, an M.S. from the Georgia Institute of Technology and an M.B.A. from Harvard Business School. Mr. Krieger was nominated to serve on our board of directors by Warburg Pincus pursuant to the terms of the Voting Agreement and brings extensive experience in business and finance and the energy industry to our board of directors.

Cheryl P. Morley, Director

Ms. Morley has served on our board of directors since August 2011. She was Senior Vice President of Corporate Strategy with Monsanto Company from 2003 to 2009, president of the Animal Agricultural Group from 1997 to 2003 and held a number of other leadership positions at Monsanto and its subsidiaries from 1983 to 1997. She also led the marketing and business development efforts for Monsanto s NutraSweet product. Ms. Morley has served as a board member of Fleming Pharmaceuticals since March 2010, Mercy Health Systems since June 2011, and the Missouri Botanical Gardens since June 2006. In addition, since January 2010 she has served as chairman of the strategic advisory board to Joule Biotechnologies, Inc., and since November 2010 as a member of the business development advisory board of Essentient, Inc. Ms. Morley was chairman of the board and a member of the audit and compensation committees of the Nidus Center for Scientific Enterprise from September 2003 to October 2010. She was presiding director, chairman of the nominating and governance committee and a member of the audit committee for Indevus Pharmaceuticals from June 2002 to March 2009. She holds a B.S. degree from the University of Arizona and is a Certified Public Accountant. Ms. Morley brings extensive experience in finance, service on numerous boards and an understanding of the seed business to our board of directors.

Table of Contents

Edmund Olivier, Director

Mr. Olivier has served on our board of directors since our inception in 1996. Mr. Olivier is a founding general partner of Oxford Bioscience Partners, one of the founders of Ceres. Mr. Olivier has been with Oxford Bioscience Partners since 1995. He has overseen investments in numerous life science companies in the United States, Europe, India and Japan. He has also served on the board of directors of a number of Oxford Bioscience s portfolio companies. Mr. Olivier received an M.B.A. from Harvard Business School and a B.S. in Chemical Engineering from Rice University. He is a Life Fellow and member of the International Council of the Salk Institute and a Regent of Harris Manchester College, Oxford University. Mr. Olivier was nominated to serve on our board of directors by entities affiliated with Oxford Bioscience Partners pursuant to the terms of the Voting Agreement and brings extensive experience in business and finance, as well as an understanding of the life sciences industry, to our board of directors.

Executive Officers

Paul M. Kuc, Chief Financial Officer

Mr. Kuc joined Ceres in 2008 as Chief Financial Officer, following a 12-year career with Monsanto Company, where he held various regional and global finance positions, including posts in Argentina, Brazil, Canada, Mexico and the United States, with his last position, beginning April 2007, as Lead Worldwide Manufacturing Finance at Seminis, Inc., which was purchased by Monsanto in 2005. At Monsanto, among other responsibilities, he developed and implemented international costing and financial systems for the seed and agricultural biotechnology company. Mr. Kuc began his career, from June 1994 to June 1996 at the pharmaceutical company Eli Lilly and Company. He holds a Master s of Science degree in Economics from the University of Lodz, Poland and an M.B.A. from the Ivey Business School, University of Western Ontario, Canada.

Wilfriede van Assche, Senior Vice President & General Counsel and Secretary

Ms. van Assche joined Ceres in 2000. She has more than 20 years of legal experience in the plant biotechnology and seed industry. From 1996 until 2000, Ms. van Assche was the General Counsel of the plant biotechnology and seed divisions of Hoechst Schering AgrEvo GmbH and following the merger of Hoechst and Rhone Poulenc, of the same divisions of Aventis, a leading life sciences company that is now part of Bayer AG. Previously, she was the General Counsel of Plant Genetic Systems N.V. from 1988 until its acquisition by Hoechst Schering AgrEvo GmbH in 1996. She began her career with the law firm De Bandt van Hecke (now Linklaters) in Belgium from 1979 until 1982, and was counsel in the legal department of GTE Atea (now Siemens), a telecommunications company, from 1982 until 1988. Ms. van Assche holds a law degree from the University of Leuven and a postgraduate degree from the College of Europe. She is a member of the State Bar of California.

J. Jefferson Gwyn, Ph.D., Vice President of Breeding and Genomics

Dr. Gwyn joined Ceres in 2008 as Director of Breeding and was promoted in August 2009 to Vice President of Breeding and Genomics. He oversees crop improvement in switchgrass, sorghum and other energy crops. He also manages our field research center near College Station, Texas. Prior to joining Ceres, Dr. Gwyn was head of soybean trait development at Syngenta Seeds, Inc. from July 2007 to August 2008 and station manager from September 2005 to July 2007. Earlier in his career, Dr. Gwyn established and managed cotton breeding and trait programs stations in the United States and Brazil for Bayer Cotton Seed International as Director of Breeding from March 1998 to July 2005. He was also a project director and program manager in corn trait breeding for DeKalb Genetics from March 1996 to February 1998. Dr. Gwyn began his career as a cotton breeder and plant geneticist with Chembred, Inc. (American Cyanamid) from May 1989 to October 1995. He holds a Ph.D. in genetics from Texas A&M University and a Master s Degree in genetics and plant breeding from Iowa State University. He completed his undergraduate

studies at the University of Arkansas.

Table of Contents

Michael Stephenson, Vice President of Operations

Mr. Stephenson joined Ceres in 2008. Prior to joining Ceres, Mr. Stephenson was a general manager for one of the brands of AgReliant Genetics, the fifth largest corn seed company in the United States, from 2000 to 2008. In addition to his commercial experience, Mr. Stephenson has chaired the American Seed Trade Association s corn and sorghum division, and served as President of the Soybean Research Foundation and Regional Vice President of American Seed Trade Association. Mr. Stephenson holds a B.S. in Business Administration from the University of Kansas.

Roger Pennell, Ph.D., Vice President of Trait Development

Dr. Pennell joined Ceres in 1998 and held various research management positions, including Director, Trait Development from 2006 until 2009 when he assumed his current role as Vice President of Trait Development. Dr. Pennell has been an Adjunct Professor in the Department of Molecular, Cellular and Developmental Biology at the University of California, Los Angeles since 2001 and a frequent reviewer for the scientific press. Dr. Pennell holds a Ph.D. from University College London. He performed post-doctoral research at the John Innes Institute and Wageningen Agricultural University, and in 1990 was the recipient of a prestigious Royal Society University Research Fellowship, which he used at University College London and, from 1995, at the Salk Institute. During this time, Dr. Pennell studied cellular and molecular aspects of plant growth, development and disease resistance, and has published more than 40 scientific papers on these subjects.

Board of Directors

Our board of directors currently consists of ten members. Our amended and restated certificate of incorporation and bylaws, which will become effective immediately prior to the completion of this offering, will permit our board of directors to establish by resolution the authorized number of directors.

Our amended and restated certificate of incorporation and our amended and restated bylaws will provide for a classified board of directors consisting of three classes, with staggered three-year terms as follows:

Class I directors, whose initial term will expire at the annual meeting of stockholders to be held in 2012;

Class II directors, whose initial term will expire at the annual meeting of stockholders to be held in 2013; and

Class III directors, whose initial term will expire at the annual meeting of stockholders to be held in 2014.

At each annual meeting of stockholders after the initial classification, upon expiration of the term of a class of directors, directors in that class will be elected for three-year terms at the annual meeting of stockholders held in the year in which that term expires. Each director s term continues until the election and qualification of his or her successor, or his or her earlier death, resignation or removal. Any increase or decrease in the number of directors will be distributed among three classes so that, as nearly as possible, each class will consist of one-third of the total number of directors.

Upon the completion of this offering, the Class I directors will consist of Mr. Debbane, Dr. Goldberg and Mr. Kiley; the Class II directors will consist of Mr. Brandys, Dr. Flavell, Dr. Hamilton and Mr. Olivier; and the Class III directors will consist of Dr. De Logi, Mr. Krieger and Ms. Morley.

The classification of our board of directors and provisions described above may have the effect of delaying or preventing changes in our control or management. See Description of Capital Stock Anti-Takeover Provisions to be in Effect Upon the Completion of this Offering Amended and Restated Certificate of Incorporation and Bylaw

Provisions .

Table of Contents

Risk Oversight

The board of directors is responsible for general oversight of company risk and risk management, and reviews management s strategies for adequately mitigating and managing the identified risks. Although our board of directors administers this risk management oversight function, our Audit Committee supports our board of directors in discharging its oversight duties and address risks. Our board of directors expects company management to consider risk and risk management in its business decisions, to develop and monitor risk management strategies and processes for day-to-day activities and to implement risk management strategies adopted by the committees and the board of directors.

Director Independence

Upon the completion of this offering, we expect that our common stock will be listed on the Nasdaq Global Market. Under the rules of the Nasdaq Global Market, independent directors must comprise a majority of a listed company s board of directors within a specified period of the completion of this offering. In addition, the rules of the Nasdaq Global Market require that, subject to specified exceptions, each member of a listed company s audit, compensation and nominating and governance committees be independent. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. Under the rules of the Nasdaq Global Market, a director will only qualify as an independent director if, in the opinion of that company s board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

In order to be considered to be independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

In September 2011, our board of directors undertook a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that none of Messrs. De Logi, Brandys, Debbane, Goldberg, Kiley, Krieger and Olivier and Ms. Morley, representing eight of our ten directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is independent as that term is defined under the rules of the Nasdaq Global Market.

Our board of directors also determined that Messrs. Brandys and Kiley and Ms. Morley, who will comprise our Audit Committee upon the listing of our common stock on the Nasdaq Global Market, and Messrs. De Logi and Olivier and Ms. Morley, who will comprise our Compensation Committee upon the listing of our common stock on the Nasdaq Global Market, satisfy the independence standards for those committees established by applicable SEC rules and the rules of The Nasdaq Stock Market. In making this determination, our board of directors considered the relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock held by each non-employee director.

Committees of the Board of Directors

Our board of directors has established an Audit Committee and a Compensation Committee and has established a Nominating and Corporate Governance Committee that will become effective prior to the completion of this offering. Each committee will have the composition and responsibilities described below.

Table of Contents

Audit Committee

Our Audit Committee will be comprised of Messrs. Brandys and Kiley and Ms. Morley, who will be chair of the Audit Committee. The composition of our Audit Committee will meet the requirements for independence under the current Nasdaq Global Market and SEC rules and regulations. Each member of our Audit Committee possesses financial sophistication as defined under the rules of the Nasdaq Global Market. Ms. Morley will be our Audit Committee financial expert as that term is defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Act. Being an Audit Committee financial expert does not impose on Ms. Morley any duties, obligations or liabilities that are greater than are generally imposed on her as a member of our Audit Committee and our board of directors. Our board of directors will adopt a new charter for our Audit Committee, which provides, among other things, that our Audit Committee will:

- oversee our accounting and financial reporting processes and audits of our financial statements;
- be directly responsible for the appointment, retention, compensation and oversight of the work of the independent registered public accounting firm;
- have the sole authority to preapprove any non-audit services to be provided by the independent registered public accounting firm and to review with the lead audit partner whether any of the audit team members receive any discretionary compensation from the audit firm with respect to non-audit services performed by the independent registered public accounting firm;
- actively engage in dialogue with the independent registered public accounting firm with respect to any disclosed relationships or services that may impact the objectivity and independence of the independent registered public accounting firm and recommending that the board of directors take, appropriate action to oversee the independence of the independent auditor; and
- discuss the adequacy of the Company s internal control over financial reporting with the independent registered public accounting firm and management and review and discuss any changes implemented by management to address control deficiencies or to make controls more effective.

Compensation Committee

Our Compensation Committee will be comprised of Ms. Morley and Messrs. De Logi and Olivier, who will be the chair of the Compensation Committee. The composition of our Compensation Committee will meet the requirements for independence under the current Nasdaq Global Market and SEC rules and regulations. The purpose of our Compensation Committee is to set compensation policy, administer compensation plans and recommend compensation for executive officers to the board of directors. Our board of directors has adopted a new charter for our Compensation Committee to become effective upon the listing of our common stock on the Nasdaq Global Market. Under this new charter, our Compensation Committee will discharge the responsibilities of our board of directors relating to compensation of our executive officers, and will, among other things:

- establish the Company s general compensation philosophy;
- review and recommend that our board of directors approve the compensation of our executive officers;
- review and recommend that our board of directors approve the compensation of our directors;
- review and recommend that our board of directors approve compensation for our new or prospective hires;

review and approve, or recommend that the board of directors approve, payouts under annual bonus and other performance-based compensation programs;

Table of Contents

review and recommend that our board of directors approve new or existing long-term or equity-based compensation plans or arrangements and administer those plans or arrangements;

assist in developing succession and continuity plans for the CEO and other executive officers;

review and consult with the board of directors on our compensation and benefit plans to determine whether they create risks that are reasonably likely to have a material adverse effect on the company; and

review, discuss with management, and approve the compensation, discussion and analysis for our public filings.

In May 2011, our Compensation Committee retained Compensia, Inc., or Compensia, a compensation advisory firm, to serve as an independent advisor to the Compensation Committee on executive, equity, and board compensation matters. Compensia assisted our Compensation Committee to identify a peer group of public companies, to conduct an executive compensation market assessment and to develop a non-employee director compensation program, which will be applicable following this offering. More information regarding the decisions that the Compensation Committee has made based on Compensia s recommendations is included below under Compensation Discussion and Analysis.

Nominating and Corporate Governance Committee

Our board of directors has established a Nominating and Corporate Governance Committee which will become effective upon the listing of our common stock on the Nasdaq Global Market. Our Nominating and Corporate Governance Committee will be comprised of Messrs. De Logi, Debbane, Krieger and Kiley, who will be the chair of the Nominating and Corporate Governance Committee. The composition of our Nominating and Corporate Governance Committee will meet the requirements for independence under the current Nasdaq Global Market and SEC rules and regulations. Our Nominating and Corporate Governance Committee will, among other things:

identify and recommend director nominees;

recommend directors to serve on our various committees; and

implement our corporate governance guidelines.

We intend to post the charters of our Audit, Compensation and Nominating and Corporate Governance Committees, and any amendments that may be adopted from time to time, on our website.

Compensation Committee Interlocks and Insider Participation

During fiscal 2011, our Compensation Committee was comprised of Messrs. Brandys, De Logi, Goldberg and Olivier. None of them has at any time during the last fiscal year been one of our officers or employees, nor have any of our executive officers served as a member of the board of directors, or as a member of the compensation or similar committee, of an entity that has one or more executive officers who served on our board of directors or Compensation Committee during fiscal 2011. The Edmund and Ellen Olivier Revocable Family Trust purchased convertible notes in the convertible note offering more fully described in Certain Relationships and Related Party Transactions below. Mr. Olivier is a trustee of such trust. The Ambergate Trust purchased convertible notes from us in the convertible note offering more fully described in Certain Relationships and Related Party Transactions below. Dr. De Logi is a beneficiary of such trust.

Code of Business Conduct and Ethics

Our board of directors will adopt a code of business conduct and ethics. The code of business conduct and ethics will apply to all of our employees, officers and directors, including those officers

responsible for financial reporting. The full text of our code of business conduct and ethics will be posted on our website at *www.ceres.net*. We intend to disclose future amendments to our code of business conduct and ethics, or waivers of these provisions, on our website and also in our periodic filings with the SEC.

Limitation of Liability and Indemnification of Officers and Directors

Our amended and restated certificate of incorporation and bylaws, which will become effective upon the completion of this offering, limit the liability of our directors, officers, employees and other agents to the fullest extent permitted by Delaware law. Section 145 of the Delaware General Corporation Law permits indemnification of officers, directors and other agents under certain circumstances and subject to certain limitations. Delaware law also permits a corporation to not hold its directors personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for:

breach of their duty of loyalty to us or our stockholders;

acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; and

any transaction from which the director derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under the federal or state securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission. Our amended and restated certificate of incorporation will also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in this capacity. We have obtained directors and officers liability insurance to cover certain liabilities described above. We plan to enter into separate indemnity agreements with each of our directors and executive officers that require us to indemnify such persons against any and all expenses (including attorneys fees), witness fees, judgments, fines, settlements and other amounts incurred (including expenses of a derivative action) in connection with any action, suit or proceeding or alternative dispute resolution mechanism, inquiry hearing or investigation, whether threatened, pending or completed, to which any such person may be made a party by reason of the fact that such person is or was a director, an officer or an employee of us or any of our affiliated enterprises, provided that such person must follow the procedures for determining entitlement to indemnification set out in the indemnity agreements. The indemnity agreements will also set forth other procedures that will apply in the event of a claim for indemnification thereunder. We believe that these provisions and agreements are necessary to attract and retain qualified persons as executive officers and directors of our company.

At present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might provide a benefit to us and our stockholders. Our results of operations and financial conditions may be negatively affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, executive officers or persons controlling us, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Table of Contents

Director Compensation

Director Compensation Prior to this Offering

Prior to this offering, we have not paid our directors any cash compensation or directors fees for their service on the board of directors. It has been our policy, however, to provide annual stock option grants to Messrs. Brandys and Kiley to purchase 15,000 shares of our common stock as compensation for their service on our board of directors. These option grants generally vest over four years, with 25 percent vesting after the first year and the remainder vesting ratably each month thereafter over the next three years. In June 2011, Messrs. Brandys and Kiley each received his grant of 15,000 stock options for fiscal 2011. We also have a consulting agreement with Dr. Goldberg pursuant to which we reimburse him for reasonable out of pocket business expenses incurred in the performance of his consulting duties of up to $40,000 per year. In addition, pursuant to the consulting agreement, prior to fiscal 2011, Dr. Goldberg received four stock option grants, each covering 15,000 shares of common stock. In July 2011, Dr. Goldberg received a grant of stock options to purchase 15,000 shares of our common stock as compensation for his continued consulting services pursuant to an amendment of his consulting agreement. Each of the stock option grants to our non-employee directors in fiscal 2011 was made pursuant to our standard four-year vesting schedule described above. The following table shows, for the year ended August 31, 2011, information with respect to the compensation of our non-employee directors:

Name	Option Awards ($)(1)(2)	Total ($)
Pascal Brandys	58,800	58,800
Robert Goldberg	63,300	63,300
Thomas Kiley	58,800	58,800

(1) The amounts in the Option Awards column reflect the aggregate grant date fair value of stock options granted during fiscal 2011, computed in accordance with ASC Topic 718, consisting of a grant of options to purchase 15,000 shares to each of Mr. Brandys, Dr. Goldberg and Mr. Kiley. The assumptions used by us in determining the grant date fair value of option awards and our general approach to our valuation methodology are set forth in the Management s Discussion and Analysis of Financial Condition and Results of Operations Stock-based Compensation section of this prospectus. These amounts do not correspond to the actual value that may be recognized by the directors.

(2) As of August 31, 2011, members of our board of directors held outstanding stock option awards as follows: Dr. De Logi held 250,000 outstanding stock option awards, Mr. Brandys held 90,000 outstanding stock option awards, Dr. Goldberg held 95,000 outstanding stock option awards and Mr. Kiley held 185,000 outstanding stock option awards.

Our employee directors, Richard Hamilton and Richard Flavell, do not receive any compensation for their service as directors. The compensation that we pay to Dr. Hamilton and Dr. Flavell is discussed in the Executive Compensation section of this prospectus.

Director Compensation After this Offering

Based on the recommendation of Compensia and our Compensation Committee, our board of directors has adopted a compensation policy that will become applicable to all of our non-employee directors after this offering. Under this

policy, each non-employee director will receive an annual cash retainer and an annual stock option grant. In addition, upon initial appointment to the board of directors, each non-employee director will receive an initial stock option grant. Committee members and committee chairpersons will receive additional committee retainers, and if we elect a lead/non-

Table of Contents

executive chairman of the board of directors, he or she will also receive an additional lead director retainer. The retainer and stock option amounts that we will provide are as follows:

an annual retainer of $30,000;

an initial stock option grant to purchase 35,000 shares, to vest annually over three years;

an annual stock option grant to purchase 17,500 shares, to vest 100% after one year;

an annual retainer for committee members as follows: $7,500 for members of the audit and compensation committees, and $3,500 for members of the nominating and governance committee;

an annual retainer for committee chairs as follows: $15,000 for the chairs of the audit and compensation committees, and $6,000 for the chair of the nominating and governance committee;

an annual retainer of $30,000 for any non-employee director appointed as lead/non-executive chairman of the board of directors; and

reimbursement for reasonable out-of-pocket business expenses.

Table of