

Ceres, Inc.
Form S-1/A
February 28, 2014

As filed with the Securities and Exchange Commission on February 28, 2014

Registration No. 333-193556

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

**Amendment No. 2 to
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Ceres, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)
1535 Rancho Conejo Boulevard
Thousand Oaks, CA 91320
(805) 376-6500

100
(Primary Standard Industrial
Classification Code Number)

33-0727287
(I.R.S. Employer
Identification No.)

(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
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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.

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.

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.

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.

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.

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Large accelerated filer
Non-accelerated filer (Do not check if a smaller reporting
company)

Accelerated filer
Smaller reporting company

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Title of Each Class of Securities To Be Registered	Proposed Maximum Aggregate Offering Price ⁽¹⁾	Amount of Registration Fee
Common Stock, \$0.01 par value per share ⁽²⁾	\$ 34,960,000	\$ 4,503
Representative s Warrants to Purchase Common Stock ⁽³⁾		
Common Stock Underlying Representative s Warrants ⁽²⁾⁽⁴⁾⁽⁵⁾	\$ 1,573,200	\$ 203
Total	\$ 36,533,200	\$ 4,706 ⁽⁶⁾

Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the (1) Securities Act of 1933. Includes the offering price of additional shares that the underwriters have the option to purchase.

(2) Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional securities as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(3) No fee pursuant to Rule 457(g) under the Securities Act of 1933.

(4) If issued, the Representative s Warrants would be exercisable at a per share exercise price equal to 150% of the public offering price. As estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act of 1933, based on an estimated proposed maximum aggregate offering price of \$1,573,200, which is equal to 150% of \$1,048,800 (3% of \$34,960,000).

(5) The common stock underlying the warrants is being registered solely in connection with the Securities and Exchange Commission s Compliance and Disclosure Interpretation for Securities Act Section 5, Question 139.05. No offer of such common stock exists as defined in Section 2(a)(3) of the Securities Act of 1933 because the warrants, if issued, would not be exercisable until one year following their issuance.

(6) A registration fee of \$3,096 was previously paid based on an estimate of the aggregate offering price.

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 Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. We may not sell the securities pursuant to this prospectus until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION DATED FEBRUARY 28, 2014

**20,000,000 Shares
Common Stock**

We are offering 20,000,000 shares of our common stock. Our common stock is listed on the Nasdaq Global Market under the symbol CERE. The last reported sale price of our common stock on February 27, 2014 was \$1.52 per share. We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act.

You should read this prospectus and the documents incorporated by reference in this prospectus carefully before you invest.

See Risk Factors on page 12 of this prospectus to read about factors you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$	\$
Underwriting discount ⁽¹⁾⁽²⁾	\$	\$
Proceeds, before expenses, to Ceres	\$	\$

(1) The underwriters will receive compensation in addition to the underwriting discount. See Underwriting beginning on page 77 of this prospectus.

The amounts included in the underwriting discount line include amounts to be paid by the underwriters to Trout Capital LLC for providing advisory services to us in connection with this offering. The amount to be paid by the (2) underwriters to Trout Capital LLC is equal to (i) 1% of the gross proceeds received from non-affiliates of the Company and (ii) an additional \$5,000, up to a maximum of \$12,500, for each \$5 million in gross proceeds received from non-affiliates of the Company in excess of \$15 million.

We have granted a 45-day option to the underwriters to purchase up to 3,000,000 additional shares solely to cover over-allotments, if any.

The underwriters expect to deliver the shares against payment in New York, New York on _____, 2014.

Aegis Capital Corp

The date of this prospectus is _____, 2014.

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You should rely only on the information contained or incorporated by reference in this prospectus or in any related free writing prospectus filed by us with the Securities and Exchange Commission, or the SEC. 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 and the documents incorporated by reference herein are accurate only as of their respective dates, regardless of the time of delivery of this prospectus or any sale of shares of our common stock.

Neither we nor 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.

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere or incorporated by reference 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 or incorporated by reference in this prospectus. You should carefully consider, among other things, the matters discussed in Risk Factors, before making an investment decision. You should also read and consider the information in the documents to which we have referred you in Where You Can Find Additional Information. Unless otherwise indicated in this prospectus, Ceres, our company, the Company, we, us and our refer to Ceres, Inc. and our subsidiary, Ceres Sementes do Brasil Ltda.

Business Overview

Our Company

We are an agricultural biotechnology company selling seeds to produce dedicated energy crops 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 seed products that we believe address the limitations of first-generation bioenergy feedstocks, such as corn and sugarcane, increase crop productivity, reduce crop inputs and improve cultivation on marginal land.

Our largest immediate commercial opportunity is in Brazil where we market sweet sorghum hybrids that can be used as a drop-in feedstock to complement existing feedstock supplies and extend the operating season of Brazilian sugarcane-to-ethanol mills. Our products are drop-in solutions because they can be planted, harvested and processed using existing agricultural equipment with little or no modification. 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, utility-scale electric power can be generated from the biomass feedstocks grown from our seeds.

The seed industry has historically required very little capital to produce, condition and package 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 one of the most attractive segments of the bioenergy value chain upstream from the capital-intensive refining and conversion of biomass. 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 bioenergy value chain also allows us to be largely independent of the success of any particular conversion technology or end use.

Due to the nature of biotechnology, we believe other crops, such as corn, rice and soybean, can benefit from many of the traits and genetic technologies we are developing for dedicated energy crops, such as traits that provide drought tolerance. 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. Our strategy is to focus on genes that have shown large, step increases in performance, and whose benefits are maintained across multiple species. To date, our field evaluations have largely confirmed previous results obtained in greenhouse and laboratory settings, and we believe that based on these multiple confirmations, we have an industry leading biotech trait technology pipeline, with

applications in our energy crops as well as other crops.

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 have out-licensed a portion of our traits and gene technology to existing market participants and continue to pursue opportunities to out-license these technologies.

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Commercial Evaluations of Our Sorghum Products in Brazil

Since 2010, we have completed various commercial-scale evaluations of our sweet sorghum products in Brazil with over 30 ethanol mills and mill suppliers. During this time, our seeds have been planted and harvested using existing equipment and fermented into ethanol without retrofitting or altering the existing mills. The remaining biomass from this industrial process has been combusted for electricity production using existing mill boilers. We believe these experiences have demonstrated the drop-in nature of our sweet sorghum products, and along with higher yielding products in our pipeline, 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.

With industrial processing generally well established in Brazil, we believe that field performance primarily yields of sugars that can be fermented to ethanol will largely determine the scale and pace at which our current and future products will be adopted. Based on industry feedback, we believe that minimum average yields in the range of 2,500 to 3,000 liters of ethanol per hectare will be necessary to achieve broad adoption. We believe that at least two growing seasons, including the one currently underway, will be required to fully demonstrate this yield range. To date, we have demonstrated on a limited scale that our products can achieve such yields within their area of adaptation, provided that our crop management protocols are followed and plantings receive adequate rainfall; however, further optimizations and additional hybrids will be needed to consistently achieve economically attractive yields across wide-area plantings.

For the 2012 – 2013 sweet sorghum growing season in Brazil, our products were planted by or for more than 30 mills in Brazil through a combination of seed sales, agronomy and crop management services and product evaluations. We collected yield results from approximately two-thirds of the mills that planted our hybrids during the 2012 – 2013 growing season; the remaining mills reported incomplete results, did not complete the evaluation or chose not to report results. For mills that reported results, yields of sugars that can be fermented into ethanol were approximately 50% higher on average than the previous season, primarily as a result of product improvements related to biomass quality and productivity, better crop management and more favorable growing conditions at most planting locations.

A third-party fermentation lab in Brazil confirmed total fermentable sugar yields. Based on anecdotal customer reports, our portfolio of sweet sorghum hybrids outyielded competitor products at multiple locations where side-by-side comparisons were available. Ethanol yields from our products ranged from approximately 450 to 3,600 liters per hectare, according to mill and company calculations. Mills representing the top 20% of yields, and which generally followed established crop management practices, achieved average yields ranging from 2,100 to 3,300 liters per hectare. Lower yields were primarily due to deviations from recommended crop management protocols, weather related delays during planting and disease infection late in the growing season.

Plantings for the 2013 – 2014 sorghum growing season in Brazil have been successfully completed with 49 customers, including mills and mill suppliers, across 55 different locations and within our prescribed timeframes and according to our crop management protocols. Based on published reports, we estimate that these companies, which include multi-mill conglomerates, are responsible for approximately 30% or more of the sugarcane crushed in Brazil. These plantings primarily consist of small, multi-hybrid evaluations designed to determine yield potential, identify the best performing hybrids for specific regions and demonstrate various crop management practices. Several mills have planted larger evaluations this season. As part of our product development process, we have also established a number of breeding and product development field evaluations across various geographies. These trials consist of hundreds of hybrids, including a smaller subset of hybrids in more advanced evaluations in Brazil and other countries in South America. Based on the product candidates in our pipeline today, we expect to continually improve our commercial product line with higher yielding hybrids. For example, in 2013 our top experimental hybrids achieved calculated

yields ranging from 5,200 to 6,400 liters of ethanol per hectare at small plot evaluations in Florida compared to 2,800 to 3,900 liters in the prior year. While we do not expect to achieve these yield levels at commercial scale at the present time, these research-stage results demonstrate the genetic potential of hybrids already in our pipeline. Further testing in Brazil will be required to confirm these research results, and substantially lower yields are expected as hybrids are advanced to larger-sized plantings which are affected by greater variability in weather, soil and other growing conditions. In addition to sweet sorghum, our field evaluations this season include high biomass sorghum, which is a type of sorghum developed and managed for its enhanced biomass yield as opposed to sugar or juice. Based on industry feedback, we believe that high biomass sorghum can be utilized as a

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supplementary source of biomass for industrial heat and power generation in Brazil, especially during the sugarcane offseason or periods of sugarcane bagasse shortages. We also plan to develop and launch a number of product innovations that provide greater flexibility in harvest time and end use, as well as other benefits, to our mill customers. Total plantings of our commercial and pre-commercial sorghum hybrids cover approximately 1,000 hectares for the 2013–2014 sorghum growing season compared to approximately 3,000 hectares for the previous season due primarily to a greater focus among mills on field performance, which can be determined at a smaller scale than evaluations needed for confirming industrial performance.

Due in part to the variability in yields achieved in the 2012–2013 season, we have made a number of adjustments to our product development and go-to-market approach in order to improve crop performance and consistency, and to encourage adoption of our products. We are taking the following steps based on the experience we have gained to date:

Focus on high performing customers;

Target favorable geographies;

Help mills improve on their agronomy execution;

Expand our technical development network in Brazil;

Rapidly develop and commercialize new products that provide higher yields, and therefore, provide a greater buffer for poor growing conditions or execution; and

Maintain our competitive position.

Market Opportunity

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 the growth of the biofuel, bio-based chemicals and biopower markets.

Brazil. 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 2012. We believe that mill operators are seeking alternatives that will allow them to increase production utilization of their existing mills beyond their current operating schedule in order to maximize their market opportunity. Moreover, the current crush capacity in Brazil will need to increase to meet expected domestic demand. The Brazilian government's energy research institute, *Empresa de Pesquisa Energética*, projects that ethanol demand will approximately double by 2022.

In Brazil, our sorghum products also can be used to generate electricity. Ethanol mills typically combust sugarcane bagasse, the leftover biomass from ethanol production, to generate onsite power. For mills connected to the grid, excess electricity production provides an additional source of revenue. Based on field and industrial evaluations with mills and other industrial companies, we believe that sorghum has a number of favorable attributes as a biopower feedstock and can be utilized as a supplementary source of biomass, especially during the offseason or periods of sugarcane bagasse shortages.

Global Sugar. We believe that sweet sorghum can be developed into a crop with yields and sucrose levels that are high enough to complement sugarcane as a source of crystalized table sugar. Sugarcane is cultivated on approximately 25 million hectares worldwide, according to the United Nations Food and Agriculture Organization crop database, FAOSTAT. Today, it is not possible to produce crystalized table sugar from sweet sorghum on a standalone basis due to the mix of sugars in the plant and the relatively lower sucrose levels compared to sugarcane. However, we have demonstrated at pilot scale trial that crystalized sugar can be produced from sweet sorghum on a blended basis. We also have hybrids early in our development pipeline that have demonstrated sucrose purity levels that may be high enough to produce crystalized sugar. Due in

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part to sweet sorghum's ability to grow rapidly and lower production costs relative to sugarcane, we believe that sweet sorghum could be an attractive complement or alternative to sugarcane outside of our immediate opportunity in the Brazilian ethanol market.

Cellulosic Biofuels and Bio-Based Chemicals. We expect petroleum consumption will be supplemented by products made from the conversion of non-food biomass into biofuels and bio-based chemicals. 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 in Other Geographies. Our dedicated energy crops can be used to generate electricity in existing solid-fuel power facilities, such as coal-fired generating plants. In the U.S., Europe and other geographies, the conversion of biomass to power has traditionally been fueled by bio-based waste products and residues from the paper and timber industries. We believe this practice has limited the size, location, efficiency and scale of biomass power generation because power producers cannot reliably secure long-term supplies of consistent quality feedstock. Based on feedback from partners and industry participants, we believe that our products can be cost competitive with existing biopower feedstocks and, assuming that our products meet various biomass quality specifications, can be used by existing utilities and power producers.

Food and Feed Crops. Approximately 420 million acres of biotechnology crops were planted globally in 2012, according to a March 2013 report published by the International Service for the Acquisition of Agri-Biotech Applications. The global market value of biotechnology crop seeds was approximately \$15 billion, as reported in the same report. 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 that 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.

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.

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.

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Dedicated to Bioenergy and Bio-based Chemicals

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 and bio-chemical value chain, creating a stable supply that will appeal to owners of conversion technologies who have invested significant capital in their infrastructure and 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 for multiple crops 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.

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 at commercial scale. We believe that the experience of using our products as a drop-in feedstock for the past three growing seasons, as well as new higher yielding hybrids in our product portfolio, 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.

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 our proprietary collection of energy crop parental lines, known as 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 introduce these traits into 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, drought tolerance and altered flower development, among others, have been successfully evaluated in the field; however, they are still at least four 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 that has large portfolios of both field-validated traits and germplasm, which includes thousands of specimens and breeding lines, as well as multiple pools of regionally adapted germplasm spanning northern temperate to tropical climates. We have also identified to date numerous genes and their relatives from different species 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.

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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 17 and 15 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 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.

We also plan to pursue other opportunities to leverage our traits and genetic technology platforms. Key elements of our business strategy include:

Expand Our Presence in Brazil

Brazil represents our largest immediate commercial opportunity and we have prioritized both product development and commercial resources for this market. For the 2013 – 2014 sweet sorghum growing season, we have prioritized evaluations with leading mill groups and innovators. We also intend to expand our product development network with ethanol mills and other industry participants interested in, among other objectives, gaining experience with sorghum, determining yield potential and identifying specific products for their growing conditions.

Collaborate with Leading Companies to Develop the Market for Cellulosic Biofuels

We plan to play a significant role in the second-generation biofuels and bio-based chemicals market, which is developing more slowly than the industry originally anticipated, but that we believe will represent a significant opportunity. We are continuing to adjust the pace and nature of our research activities with these extended timelines in mind. As the industry develops, we intend to collaborate with leading cellulosic biorefining companies, technology providers and project developers to analyze feedstock supply plans 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.

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

We believe that 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.

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).

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Pursue Additional Outlets for Our Technology and Genes

We intend to pursue additional outlets for our genetic technology and genes, including out-licensing opportunities with existing seed industry participants. For example, we believe other crops, such as corn, rice and soybean, can benefit from many of the traits and genetic technologies we are developing for dedicated energy crops, such as traits that provide drought tolerance. We have also generated many biotech traits specifically for cereal crops such as rice that increase grain yields and provide greater yield stability across environments.

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. As of February 14, 2014, we owned or had exclusive licensed rights to approximately 90 issued patents and approximately 110 pending patent applications in the United States and in various foreign jurisdictions.

Summary of Risk Factors

Our business is subject to a number of risks and uncertainties that you should understand before making an investment decision. For example, we have a history of net losses, we expect to continue to incur net losses and we may not achieve or maintain profitability. Furthermore, our products are in the early stages of commercialization and we have generated limited revenue from seed sales. Substantially all of our revenue to date has been derived from collaborations and government grants. Over the next several years, we expect our revenue to shift from being derived primarily from collaborations and government grants to sales of our seed products. We believe it will require at least two growing seasons, including the one currently underway, to achieve the yield ranges required for broad adoption of our seed products in Brazil. As of November 30, 2013, we had an accumulated deficit of \$282.8 million. We have incurred substantial net losses since our inception, including net losses of \$36.3 million, \$29.4 million and \$32.5 million and \$8.2 million for the years ended August 31, 2011, 2012 and 2013 and the three months ended November 30, 2013, respectively. We expect to incur additional losses for at least the next several years as we continue to invest in our research and development programs, develop new products and move forward with our commercialization activities. Additional risks are discussed more fully in the section entitled "Risk Factors" following this prospectus summary. These risks include, but are not limited to, the following:

Our largest immediate commercial opportunity is the Brazilian ethanol market, where we only completed a few seasons of evaluations and commercial-scale production of our sorghum products.

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.

Methodologies and assumptions for calculating ethanol yields per hectare, a key performance metric among our mill customers in Brazil, are not standardized and therefore subject to greater variation and interpretation than results from a controlled environment.

Our biotech products are not yet available for commercial use.

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

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

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

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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 cropland made available by our customers for sorghum production may be limited by the relative attractiveness of producing other crops.

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

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.

Any restructuring actions and cost reduction measures that we undertake may not deliver the expected results and these actions may adversely affect our business.

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.

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.

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 or incorporated by reference in this prospectus are the property of Ceres, Inc. This prospectus and the documents incorporated by reference herein contain 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.

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THE OFFERING

Common stock offered

20,000,000 shares.

Common stock to be outstanding after this offering

45,224,269 shares, or 48,224,269 shares if the underwriters exercise their option to purchase additional shares in full.

Use of proceeds

We expect to receive net proceeds from this offering of approximately \$27.4 million, based on an assumed offering price of \$1.52 per share, which was the closing price of our common stock on the Nasdaq Global Market on February 27, 2014, and after deducting the underwriting discounts and commissions and estimated offering expenses. We intend to use the net proceeds from this offering for general corporate purposes, including working capital. See Use of Proceeds .

Nasdaq Global Market trading symbol

CERE

Risk Factors

See Risk Factors on page 12 of this prospectus to read about factors you should consider before buying shares of our common stock.

The number of shares of common stock that will be outstanding after this offering is based on 25,224,269 shares outstanding as of November 30, 2013, and excludes:

3,378,818 shares of common stock issuable upon exercise of options to purchase our common stock outstanding as of November 30, 2013 at a weighted average exercise price of \$6.18 per share;

2,082,045 shares of common stock issuable upon exercise of warrants to purchase our common stock outstanding as of November 30, 2013 at a weighted average exercise price of \$20.34 per share; and

41,603 shares of common stock reserved as of November 30, 2013 for future issuance under our 2010 Stock Option/Stock Issuance Plan;

1,023,937 shares of common stock reserved as of November 30, 2013 for future issuance under our Amended and Restated 2011 Equity Incentive Plan; and

600,000 shares of common stock underlying the warrants that would be issued to the Representative in connection with this offering. See Underwriting Representative's Warrants.

Except as otherwise indicated, all information in this prospectus assumes no exercise by the underwriters of their right to purchase up to an additional shares of common stock at the public offering price less the underwriting discounts and commissions.

TABLE OF CONTENTS**SUMMARY CONSOLIDATED FINANCIAL DATA**

The summary data presented below for each of the years in the three-year period ended August 31, 2013, are derived from the consolidated financial statements of Ceres, Inc. and subsidiaries, which financial statements have been audited by KPMG LLP, an independent registered public accounting firm. The consolidated financial statements as of August 31, 2013 and 2012, and for each of the years in the three-year period ended August 31, 2013, and the report thereon, are included elsewhere in this prospectus. The summary consolidated financial data for the three months ended November 30, 2012 and 2013 and as of November 30, 2013 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. 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 in our Annual Report on Form 10-K for the year ended August 31, 2013 and our consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	Year Ended August 31,			Three Months Ended November 30,	
	2011	2012	2013	2012	2013
	(Unaudited)				
	(In thousands, except share and per share data)				
Consolidated Statement of Operations					
Revenues					
Product sales	\$ 116	\$432	\$462	\$ 14	\$20
Collaborative research and government grants	6,500	4,939	4,781	1,952	743
Total revenue	6,616	5,371	5,243	1,966	763
Cost and operating expenses					
Cost of product sales	2,492	2,384	6,245	700	1,309
Research and development	19,014	19,155	16,401	4,343	4,414
Selling, general and administrative	10,008	12,634	15,187	3,844	3,260
Total cost and operating expenses	31,514	34,173	37,833	8,887	8,983
Loss from operations	(24,898)	(28,802)	(32,590)	(6,921)	(8,220)
Interest expense	(456)	(560)	(46)	(1)	
Interest income	7	39	126	29	16
Other income (expense)	(11,020)	(84)			
Loss before income taxes	(36,367)	(29,407)	(32,510)	(6,893)	(8,204)
Income tax benefit (expense)	31	(3)	(1)	(1)	(1)
Net loss	\$(36,336)	\$(29,410)	\$(32,511)	\$(6,894)	\$(8,205)
Basic and diluted net loss per share ⁽¹⁾	\$(18.34)	\$(2.18)	\$(1.31)	\$(0.28)	\$(0.33)
Weighted average outstanding common shares used for net loss per share attributable to common stockholders:					

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Basic and diluted ⁽¹⁾	1,981,627	13,488,336	24,796,030	24,693,303	25,106,690
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(1) The basic and diluted loss per share are computed by dividing the net loss by the weighted average number of common shares outstanding during the period. As we have losses in all periods presented, all potentially dilutive common shares comprising of stock options, warrants, convertible notes and convertible preferred stock are anti-dilutive.

Our consolidated balance sheet data as of November 30, 2013 is presented:

on an actual basis;

on an as adjusted basis to give effect to the sale of 20,000,000 shares of common stock by us in this offering, at an assumed offering price of \$1.52 per share, which was the closing price of our common stock on the Nasdaq Global Market on February 27, 2014, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

	As of November 30, 2013	
	Actual	As Adjusted
	(In thousands)	
	(Unaudited)	
Consolidated Balance Sheet Data:		
Cash and cash equivalents	\$ 7,314	\$ 34,682
Marketable securities	\$ 17,127	\$ 17,127
Total assets	30,944	58,312
Total indebtedness (including short-term indebtedness)	195	195
Total stockholders equity	25,836	53,204

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RISK FACTORS

You should carefully consider the risks and uncertainties set forth below and in Item 1A. Risk Factors in our Annual Report on Form 10-K for the year ended August 31, 2013, together with all of the other information set forth in this prospectus and in the documents incorporated by reference herein. If any of these risks actually occur, our business, financial condition, results of operations and future prospects could be materially and adversely affected.

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 of November 30, 2013, we had an accumulated deficit of \$282.8 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, develop new products and 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. However, due in part to the variability of the yields achieved in the 2012–2013 season in Brazil and the slower than expected development of the market for cellulosic biofuels and biopower, we expect product sales to grow more modestly than originally anticipated. We believe it will require at least two growing seasons, including the one currently underway, to achieve the yield ranges required for broad adoption of our seed products in Brazil. 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 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 and we have generated minimal sales from our products.

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 years ended August 31, 2012 and August 31, 2013 were minimal and were derived mainly from sales to third parties that were evaluating our products. We began selling seeds in the Brazilian market in November 2011 and in the U.S. in 2009. As of November 30, 2013, we have sold approximately \$1.5 million of our commercial products in the aggregate. 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.

Our largest immediate commercial opportunity is the Brazilian ethanol market, where we have only completed a few seasons of evaluations and commercial-scale production of our sorghum products.

Since 2010, we have completed various commercial-scale evaluations of our sorghum products in Brazil with ethanol mills and mill suppliers. During this time, various plantings suffered from reduced yields due wholly or in part to weather, soil conditions, planting and harvest timing, product adaptation, failure to follow our crop management recommendations or other causes. To the extent that the results of these plantings wholly or in part do not meet our collaborators' expectations, we may experience a significant delay in commercializing our sorghum products in Brazil. Moreover, lower than expected yields could discourage the mill owners that planted our seeds from planting our seeds again, at similar or greater scale, and discourage other mill owners from trying our sorghum products. For example, total plantings of our sorghum products cover approximately 1,000 hectares for the 2013-2014 sorghum growing season and covered approximately 3,000 hectares for the previous season, both of which are less than we originally anticipated. The future success of our sorghum

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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 sorghum products. To the extent that our sorghum products do not result in expected yields, we may have difficulty convincing sugarcane-to-ethanol mill owners to purchase or trial our current and future sweet sorghum products.

The markets for 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 continue to demonstrate on a commercial scale that sweet sorghum can reliably be used as a cost-efficient feedstock for ethanol production. To date, we have demonstrated on a limited scale that our products can achieve economically attractive yields within their area of adaptation, provided that our crop management protocols are followed and plantings receive adequate rainfall; however, further optimizations and additional hybrids will be needed to consistently achieve economically attractive yields across wide-area plantings. Based on industry feedback, we believe that minimum average yields in the range of 2,500 to 3,000 liters of ethanol per hectare will be necessary to achieve broad adoption. We believe that at least two more growing seasons, including the one currently underway, will be required to fully demonstrate this yield range. 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 feedstock 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. However, during the last two growing seasons in Brazil, variability in yield was due in part to deviations from our recommended crop management practices. As a result, in certain cases, we participated directly in, and have incurred certain unreimbursed costs for, seed, crop production and agronomy services in Brazil. We continue to provide this support in the

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2013 2014 growing season in Brazil. 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 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.

Methodologies and assumptions for calculating ethanol yields per hectare, a key performance metric among our mill customers in Brazil, are not standardized and therefore subject to greater variation and interpretation than results from a controlled environment.

Mills use a variety of measurements and a complex formula to determine ethanol yields per hectare, which we believe is a key metric in determining the profitability of sweet sorghum and its relative attractiveness to other competing opportunities. When calculating ethanol yield per hectare, mills consider the number of metric tons of sweet sorghum biomass per hectare and the amount of fermentable sugars per metric ton to determine the volumes of ethanol that can be produced. Methodologies and assumptions used in these calculations can vary, and are therefore subject to greater variability than a controlled environment. In addition, methodologies and assumptions commonly utilized in sugarcane-to-ethanol production have been shown to underestimate actual ethanol yields from sweet sorghum. Should mills rely upon methodologies and assumptions that underreport actual ethanol yields per hectare, our products may be disadvantaged, and we may have difficulty convincing mills or their suppliers to purchase or trial our current and future sorghum products.

Our sales incentive and promotional programs for the 2013 2014 season in Brazil may result in costs in excess of our seed sales revenue.

For the 2013 2014 sorghum growing season in Brazil, we offered leading mill groups the opportunity to participate in sales incentive and promotional programs. In connection with certain of these programs, we could incur costs representing a portion of some customers' production costs. While we believe that this program will facilitate the adoption of our products in Brazil, and our own experimental results lead us to believe that our new generation of hybrids will meet or exceed our performance targets, we have limited experience with the performance of these products at a large scale as well as what level of yield shortfalls to expect across wide area plantings, which are subject to the vagaries of weather and the environment. During the previous 2012 2013 season in Brazil, crop management services performed under our promotional programs totaled \$1.7 million, which was greater than our product sales in Brazil. An additional net loss in revenue from Brazil seed sales could cause the perception that our commercial plantings were unsuccessful, and adversely affect our ability to sell seed of our sweet sorghum products in following seasons. Moreover, customers may insist that we repeat these sales incentive and promotional programs in future seasons, exposing us to ongoing costs.

Our biotech products are not yet available for commercial use.

Our business strategy going forward includes the introduction of 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 selected 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 typically selected and, if required, submitted for regulatory approval, or deregulation, which has historically been a multi-year process in the United States and Brazil. Assuming these averages, we believe that we could introduce our first regulated biotech trait or traits to the market in 2018 at the earliest. By contrast, our existing sweet sorghum, switchgrass and high biomass sorghum products have all been created through the use of conventional and marker-assisted 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.

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

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 are targeting 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 weather, disease or pests, 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 believe failed to fully meet the expectations of our collaborators. Statements by our collaborators or potential customers about negative field trial experiences could harm our reputation and the decision by these parties not to proceed with large-scale trials or seed purchases based on negative results could harm our business, revenue and profitability.

Environmental factors, including weather, moisture, and pest 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. For example, South-Central Brazil experienced a significant drought during the 2011 – 2012 growing season, which resulted in reduced yields and increased variability in the performance of our sweet sorghum products. This experience adversely affected the demand for our seeds.

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

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.

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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 years ended August 31, 2012 and August 31, 2013 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 second 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 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 high cost of oil and petroleum. 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 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 are marketing our sweet sorghum varieties in Brazil as a drop-in feedstock to complement existing feedstock supplies and 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 typically 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 alone 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

Our seed business is highly seasonal and subject to weather conditions and other factors beyond our control, which

results.

The cropland made available by our customers for sorghum production may be limited by the relative attractiveness of producing other crops.

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 mill owners and growers select other potentially more profitable crops over our products, the cropland available for our products within a given geography and the overall size of our market opportunity may be limited. For example, increases in the price of certain commodities, such as soybean and corn, may encourage growers to dedicate more land to these crops instead of sweet sorghum. Moreover, while our sorghum products are intended to be produced as a complementary crop to sugarcane production, certain sugarcane cropping systems in Brazil could limit the land available for sorghum. For example, mill owners and growers may endeavor to maximize sugar yields by growing sugarcane for

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approximately 18 months rather than the more typical 12 to 15 months. Such plantings would typically occur at the same time as our sorghum plantings, and depending on the relative costs and expected yields of each crop, could limit the number of hectares that mill owners and growers plant with our products.

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, during fiscal year ended August 31, 2013, we recorded expenses of \$2.2 million for obsolete seed inventory relating to our sweet sorghum products. 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 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 begins to crush sugarcane or other feedstock, it generally seeks a continuous supply of the feedstock to run its mill without interruption until the feedstock is depleted. 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, which occurred during the 2011-2012 and 2012-2013 seasons. 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 hectare as well as other potential production issues as mature plants begin to decline and may lodge, a condition where the stems bend or break. 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 August 31, 2013, we spent \$16.4 million on research and development. We intend to continue to spend significant amounts on research and development in the

The cropland made available by our customers for sorghum production maybe limited by the relative attractiveness

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 dedicated energy crops with biotech traits.

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;

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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 comprehensive collections of germplasm for sweet sorghum, high biomass sorghum, switchgrass and miscanthus through strategic collaborations with leading institutions. 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 primary production sites are located in the United States and Brazil. We also multiply seeds in other countries in North and South America. 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.

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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 limited 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 February 14, 2014, our sales and marketing and business development departments together had six 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 Saat AG and Syngenta AG, all of which have substantially greater resources to dedicate to research and development, production, and marketing than we have and some of which are selling or have announced plans to sell competitive products in our markets. 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

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.

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 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 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

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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 Texas A&M and the Noble Foundation, 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.

Because of our historical limited volume of sales, we have had 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.

A portion of our revenue to date is generated from our collaboration agreements and we must meet our obligations u

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 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.

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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.

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, called for 17 billion gallons of the liquid transportation fuels sold in 2013 to come from renewable biofuels. 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 2013, the EPA determined that the final volume standard for cellulosic biofuel for 2013 was six million gallons, well below the 1 billion gallon volume requirement target originally 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 effect 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. We cannot provide assurances that these tax credits or other economic incentives will remain in place. Any future

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 affect 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.

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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 U.S. Department of Agriculture, or USDA, must review and deregulate many of 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 regulated biotechnology products. The deregulation process for these 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 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 biotechnology products subject to regulation, the USDA requires us to obtain permits to plant and test these 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. There can be no assurance that we will not encounter material delays in the future as we test new biotechnology products. While to date our permits for our U.S. field trial locations have been obtained with minimal delays, we have not yet obtained approval for our first import and field trial permit request for several traits for sweet sorghum in Brazil. 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, environmental 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

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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.

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.

Our non-biotechnology products, the products of third parties or the environment may be negatively affected by the

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. Droughts and crop failures that occur from time to time may exacerbate these claims. 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

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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.

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 extend credit to our customers for our seed products or for certain planting and crop management services that we may provide from time to time. For instance, during the 2013–2014 sweet sorghum production season, we may extend credit to participants in certain of our sales incentive and promotional programs in Brazil. 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 a 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. We have two main breeding locations, one in Brazil and the other in the Northern Hemisphere, with additional breeding and agronomy trials situated in select locations across the world. Our seed production takes place primarily in the United States and Puerto Rico, as well as Bolivia and Brazil. Warehousing for seed storage is located

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

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.

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

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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. Appreciation of the Brazilian Real against the U.S. dollar would 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 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, 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.

Any restructuring actions and cost reduction measures that we undertake may not deliver the expected results and these actions may adversely affect our business.

On October 11, 2013, we commenced a plan intended to further align our expenditures with our near-term commercial opportunity in Brazil, shift Northern Hemisphere sorghum breeding activities to a more appropriate location, deemphasize research and development for U.S. cellulosic feedstocks, reduce costs and conserve cash. These measures included a workforce reduction that will impact 17 positions in the U.S. by May 31, 2014. These measures and their implementation may interfere with our ability to achieve our business objectives, may be difficult to manage and may increase the likelihood of turnover of other key employees, all of which may have an adverse impact on our business. In addition, we cannot be sure that the cost reduction initiatives will be as successful in reducing our overall expenses as expected or that additional costs will not offset any such reductions. If our operating costs are higher than we expect or if we do not maintain adequate control of our costs and expenses, our operating results will suffer. We continue to review our cost structure and may implement further restructuring or cost saving initiatives in the future.

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;

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

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.

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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. As of November 30, 2013, we believe that our existing cash and cash equivalents and marketable securities will provide adequate resources to fund our operations, including research and development expenses, planned capital expenditures and working capital requirements for the next 12 months. In order to fund our operations beyond that time, we believe we will need 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 rates;
- 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

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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 carryforwards to offset future taxable income may be subject to certain limitations.

As of August 31, 2013, we had approximately \$223.2 million of federal, \$152.7 million of state and \$14.6 million of foreign net operating loss carryforwards, or collectively the NOLs, available to offset future taxable income, if any, which expire in varying amounts from 2018 through 2033 for federal tax purposes and from 2014 through 2033 for state tax purposes if unused. The carryforward period for the foreign net operating loss is indefinite. It is possible that we will not generate taxable income in time to use these NOLs before their expiration. In addition, under Section 382 of the Code (as defined below), a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change federal NOLs to offset future taxable income. We have not completed a Section 382 analysis to determine if an ownership change has occurred or if one will occur as the result of this offering of shares. Until such analysis is completed, we cannot be sure that the full amount of the existing federal 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 to 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

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

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

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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 America Invents Act, which was signed into law on September 16, 2011, brings a number of changes to the U.S. patent system and affects the way patents are prosecuted, challenged and litigated. Among the changes that went into effect September 16, 2012, one of the most significant involves the implementation of a reformed post-grant review system. Other changes, which went into effect March 16, 2013, include the transition from a first-to-invent to first-to-file system which harmonizes the U.S. with most of the world. Together, these changes may increase the costs of prosecution and enforcement of U.S. patents. Lack of precedential interpretation of the new provisions in specific cases by the U.S. Patent and Trademark Office and the courts increases the uncertainty surrounding the effect of these

changes. While it is currently unclear what impact these changes will have on the operation of our business, they may favor companies able to dedicate more resources to patent filings and challenges.

The patent positions of biotechnology companies, including our patent position, are generally uncertain and involve complex legal and factual questions. In many cases, 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 or Plant Variety Protection certificates. 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

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patents will provide meaningful protection against competitors or against competitive technologies. Our existing patents and Plant Variety Protection certificates and any future patents or Plant Variety Protection certificates 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;
- 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
- do not have any issued patents in Brazil and we may be unable to obtain meaningful patent protection in Brazil, further, the scope of any patents that might issue in Brazil is uncertain and may not be sufficient to deter competition due to restrictions on plant claims under Brazilian patent laws and our limited filings in Brazil.

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.

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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 prior to March 16, 2013 or obtain patents based on patent applications filed before March 16, 2013 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

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

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We have received funding from U.S. government agencies that is subject to federal regulation under the Bayh-Dole Act of 1980. Failure to comply with the requirements of the Bayh-Dole Act could negatively affect our intellectual property and have an adverse effect on our business and results of operations.

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 under the Bayh-Dole Act in any resulting patents and technical data, generally including, at a minimum, a nonexclusive, nontransferable license authorizing the government to practice or have practiced 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, which may possibly be an exclusive license, to technology developed under a government grant to a responsible 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 to comply with the applicable rules and regulations related to U.S. government funded innovation, or if 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. The U.S. government also has the right to take title to these inventions if we fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits and the U.S. government may acquire title in any country in which a patent application is not filed within specified time limits. Additionally, under the Bayh-Dole Act, a party which acquires an exclusive license for an invention that was partially funded by a federal research grant is subject to the following government rights: (x) products using the invention which are sold in the United States are to be manufactured substantially in the United States, unless a waiver is obtained; (y) the government may force the granting of a license to a third party who will make and sell the needed product if the licensee does not pursue reasonable commercialization of a needed product using the invention; and (z) the United States government may use the invention for its own needs. Compliance with the requirements of the Bayh-Dole Act is complex and challenging. If we fail to comply with these guidelines or any other requirements under the Bayh-Dole Act, we may lose our exclusive rights to these products, and we may lose potential revenue derived from the sale of these products. 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.

Some of our products contain open source software which may pose particular risks to our proprietary software and products.

We use open source software in some of our products and expect to use open source software in the future. From time to time, we may face claims from third parties claiming ownership of, or demanding release of, the open source software or derivative works that we developed using such software, which could include our proprietary source code, or otherwise seeking to enforce the terms of the applicable open source license. These claims could result in litigation, could require us to make our software source code freely available, purchase a costly license or cease offering the implicated products or services unless and until we can re-engineer them to avoid infringement. This re-engineering process could require significant additional research and development resources, and we may not be able to complete

We have received funding from U.S. government agencies that is subject to federal regulation under the Bayh-Dole

it successfully. In addition to risks related to license requirements, use of certain open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or controls on the origin of software. Any of these risks could be difficult to eliminate or manage, and, if we do not address them effectively, could have a negative effect on our ability to develop and use our products that contain open source software. Additionally, compliance with open source licensing requirements is complex and challenging. Failure to comply with these requirements could have an adverse effect on our business and prospects.

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Risks Related to this Offering and Ownership of our Common Stock

The price of our common stock may be volatile which may cause the value of our common stock to decline.

Our stock price has been in the past, and may continue to be subject to wide fluctuations in response to the risk factors contained in, or incorporated by reference into this prospectus, 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;
- actual cost savings realized from our cost reduction initiatives;
- 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;
- fluctuations in the size of our public float or trading volume;
- 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, international currency fluctuations or regulatory changes 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.

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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. The perception that these sales could occur may also depress the trading price of our common stock. As of February 14, 2014, we had 25,204,602 shares of common stock outstanding. Certain of our stockholders are 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. We have received waivers of these registration rights with respect to this offering from all of the requisite stockholders. In addition, certain stockholders, including stockholders owning a majority of our outstanding shares as well as current and former employees, are eligible to resell shares of common stock in the public market under Rule 144, which, in the case of our affiliates, would be subject to volume limitations and certain other restrictions under Rule 144. We have also registered 5,381,155 shares of common stock previously issued or reserved for future issuance under our equity compensation plans and agreements. Subject to the satisfaction of applicable exercise periods and vesting requirements, 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 and 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.

We are an emerging growth company, and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act and, for as long as we continue to be an emerging growth company, we intend to take advantage of exemptions from various reporting requirements applicable to other public companies but not to emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements related to our internal controls over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. We will remain an emerging growth company for up to five years from the date of the completion of our IPO, or until the earlier of (1) the last day of the fiscal year in which our total annual gross revenues exceed \$1 billion, (2) the date that we become a large accelerated filer as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common equity that is held by non-affiliates exceeds \$700 million as of the last business day our most recently completed second fiscal quarter or (3) the date on which we have issued more than \$1 billion in

If there are substantial sales of our common stock, or the perception that these sales could occur in the future, the t

non-convertible debt during the preceding three year period. We cannot predict if investors will find our common stock less attractive if we continue to rely on these exemptions. If some investors find our common stock less attractive as a result of any choices that we make to reduce our disclosure, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, Section 107 of the JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Under this provision, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to delay such adoption of new or revised accounting standards, and as a result, we may not comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for public companies that are not emerging growth companies. As a result of such election, our

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financial statements may not be comparable to the financial statements of other public companies. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

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. Failure to implement and maintain the appropriate internal controls over financial reporting could negatively affect our ability to provide accurate and timely financial information.

We became a public company in February 2012. Although we are an emerging growth company as defined under the JOBS Act, 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 Stock Market. In addition, management and other personnel will need to devote a substantial amount of time to comply with these requirements.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls over financial reporting. Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes-Oxley Act of 2002 requires us to evaluate and report on our internal control over financial reporting, and have our chief executive officer and chief financial officer certify as to the accuracy and completeness of our financial reports. The process of implementing our internal controls and complying with Section 404 is expensive and time consuming, and requires significant attention from management. We cannot be certain that these measures will ensure that we continue to implement and maintain adequate controls over our financial processes and reporting in the future.

Our management has concluded that there are no material weaknesses in our internal controls over financial reporting as of August 31, 2013. However, there can be no assurance that our controls over financial processes and reporting will be effective in the future or that material weaknesses or significant deficiencies in our internal controls will not be discovered in the future. Because of its inherent limitations, internal control over financial reporting may not prevent or detect fraud or misstatements. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our results of operations or cause us to fail to meet our reporting obligations. If we or our independent registered public accounting firm discover a material weakness, the disclosure of that fact, even if quickly remedied, could reduce the market's confidence in our financial statements and cause our stock price to decline.

For so long as we remain an emerging growth company as defined in the JOBS Act, we intend to take advantage of certain exemptions from various reporting requirements that are applicable to public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act. Once we are no longer an emerging growth company or, if prior to such date, we opt to no longer take advantage of the applicable exemption, we will be required to include an opinion from our independent registered public accounting firm on the effectiveness of our internal controls over financial reporting. To date, our independent registered public accounting firm has not expressed an opinion on the effectiveness of our internal controls.

We will incur significant increased costs as a result of operating as a public company, and our management will be

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 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 (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 a majority of 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 certain amendments to the amended and restated certificate of incorporation be approved by a 66 2/3% stockholder vote, and (vi) establish

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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 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 February 14, 2014, our officers, directors and existing stockholders who hold at least 5% of our stock together beneficially own approximately 60.1% 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 w