

Risk Factors Comparison 2024-03-28 to 2023-03-30 Form: 10-K

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You should carefully consider the following risk factors, in addition to the other information contained in this report on Form 10-K, including the section of this report titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes. If any of the events described in the following risk factors and the risks described elsewhere in this report occurs, our business, operating results and financial condition could be seriously harmed. This report on Form 10-K also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of factors that are described below and elsewhere in this report. Risks Related to Our Business Unfavorable global economic or political conditions could adversely affect our business, financial condition or results of operations. Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. A global financial crisis or a global or regional political disruption could cause extreme volatility in the capital and credit markets. ~~For example, outbreaks~~ **Outbreaks** of epidemic, pandemic, or contagious diseases, such as the COVID-19 pandemic, could disrupt our business ~~resulting in a loss of~~ **Business disruptions could include disruptions to the productivity of from** our employees working remotely ~~and restrictions on their travel~~ **may hinder their ability to meet with potential customers and close transactions, as well as temporary closures of the facilities of suppliers or contract growers in our supply chain. While we’ve seen signs of improvement, wheat consumer packaged goods companies have been heavily focused on production over R & D evaluation as demand for staples like pasta and flour have increased. In addition, the US financial markets have been negatively impacted by the rise of inflation and interest rates, ~~and in March 2023, the government closure of Silicon Valley Bank,~~ increasing the potential for a local and / or global economic recession that could disrupt our business. A political disruption could also strain our manufacturers or suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the political or economic climate and financial market conditions could adversely impact our business. We or our partners may not be successful in developing commercial products that incorporate our traits and for which there is consumer demand. Our future growth depends on our ability to monetize the trait assets we’ve created by bringing products to market that incorporate our technology, as well as licensing these traits to our collaborators to develop and commercialize seeds and products that contain our traits. The development process could take longer than we anticipate or could ultimately fail to achieve commercial success for any of the following reasons, including but not limited to: non-competitive pricing, ineffective advertising and marketing campaigns, increased competition, failure to align with consumer tastes and lack of brand acceptance. If products containing our traits are never commercialized or are not well-received in the marketplace, our ability to generate revenues and become profitable, as well as our long-term growth strategy, would be materially and adversely affected. Even if we or our collaborators are able to develop commercial products that incorporate our traits, any such products may not achieve commercial success as quickly as we project, or at all. We have a history of significant losses, which we expect to continue, and we may never achieve or maintain profitability. We have incurred significant net losses since our formation in 2002 and expect to continue to incur net losses for the foreseeable future. We incurred net losses of \$ **14.0 million and \$ 15.6 million and \$ 16.1 million** for the years ended December 31, **2023 and 2022 and 2021**, respectively. As of December 31, ~~2022~~ **2023**, we had an accumulated deficit of \$ **257.271.98** million. Net cash used in operations was \$ **15.3 million and \$ 14.0 million and \$ 25.9 million** for the years ended December 31, **2023 and 2022 and 2021**, respectively. We expect to continue to incur losses ~~. Because we have incurred and expect to continue to incur significant costs and expenses for these efforts before we obtain any incremental revenues from the sale of products incorporating our traits, our losses in future periods could be even more significant.~~ In addition, we may find our development and commercialization efforts are more expensive than we anticipate or that they do not generate revenues **in the amounts or** in the time period we anticipate, which would further increase our losses. If we are unable to adequately control the costs associated with operating our business, including costs of development and commercialization of our traits, our business, financial condition, operating results, and prospects will suffer. We may require additional financing 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 development projects, the commercialization of our products, and to provide working capital to fund other aspects of our business. If our capital resources are insufficient to meet our capital requirements, we will have to raise additional funds. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. If we are able to raise 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 or curtail operations. If adequate funds are not available, we will not be able to successfully execute on our business strategy or continue our business. Our gross profit margins on ~~the~~ **our consumer** products ~~we’ve recently introduced containing our GoodWheat as an ingredient~~ may be impacted by a variety of factors, including but not limited to ~~variations in raw materials and packaging~~ **, freight costs,** pricing, customer requirements, market acceptance rate and promotional support costs. We expect that our gross profit as a percentage of net sales could fluctuate as a result of a number of factors, including product pricing, retail discounts, and the availability and cost of ingredients and packaging. In addition, our**

gross profit margin may be impacted by shifts in the overall mix of products having a higher or lower profit margin. If we are not able to increase our selling prices or reduce product sizes sufficiently, or in a timely manner, to offset increased raw material, packaging, or other input costs, or if our sales volume decreases significantly, there could be a negative impact on our financial condition and results of operations. Should the rate of market acceptance of our products be slower than anticipated, we may incur additional expense by increasing promotional activities. Competition is intense and requires continuous technological development, and, if we are unable to compete effectively, our financial results will suffer. We face significant competition in the markets in which we operate. The markets for pasta, pancake mix, mac and cheese, and coconut water products are intensely competitive and rapidly changing. In most segments of the seed and agricultural biotechnology market, the number of products available to consumers is steadily increasing as new products are introduced. At the same time, the expiration of patents covering existing products reduces the barriers to entry for competitors. We may be unable to compete successfully against our current and future competitors, which may result in price reductions, reduced margins and the inability to achieve market acceptance for products containing our traits. In addition, several of our competitors have substantially greater financial, marketing, sales, distribution, research and development, and technical resources than us, and some of our collaborators have more experience in research and development, regulatory matters, manufacturing, and marketing. We anticipate increased competition in the future as new companies enter the market and new technologies become available. Our technologies may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors, which will prevent or limit our ability to generate revenues from the commercialization of our traits being developed. We may seek to expand through acquisitions of and investments in other brands, businesses, and assets. These acquisition activities may be unsuccessful or divert management's attention. We may consider strategic and complementary acquisitions of and investments in other agricultural biotechnology and consumer brands, businesses or other assets, and such acquisitions or investments are subject to risks that could affect our business, including risks related to: • the necessity of coordinating geographically disparate organizations ; • implementing common systems and controls ; • integrating personnel with diverse business and cultural backgrounds ; • integrating acquired manufacturing and production facilities, technology and products ; • combining different corporate cultures and legal systems ; • unanticipated expenses related to integration, including technical and operational integration ; • increased costs and unanticipated liabilities, including with respect to registration, environmental, health and safety matters, that may affect sales and operating results ; • retaining key employees ; • obtaining required government and third- party approvals ; • legal limitations in new jurisdictions ; • installing effective internal controls and audit procedures ; • issuing common stock that could dilute the interests of our existing stockholders ; • spending cash and incurring debt ; • assuming contingent liabilities ; and • creating additional expenses. We may not be able to identify opportunities or complete transactions on commercially reasonable terms, or at all, or actually realize any anticipated benefits from such acquisitions or investments. Similarly, we may not be able to obtain financing for acquisitions or investments on attractive terms. In addition, the success of any acquisitions or investments also will depend, in part, on our ability to integrate the acquisition or investment with our existing operations. We rely on third parties to conduct, monitor, support, and oversee field trials and commercial production and, in some cases, to maintain regulatory files for those products in development, and any performance issues by third parties, or our inability to engage third parties on acceptable terms, may impact our or our collaborators' ability to complete the regulatory process for or commercialize such products. We rely on third parties, including farmers, to conduct, monitor, support, and oversee field trials and commercial production. As a result, we have less control over the timing and cost of these activities than if we conducted them with our own personnel. If we are unable to maintain or enter into agreements with these third parties on acceptable terms, or if any such engagement is terminated prematurely, we may be unable to conduct and complete our trials and commercial production in the manner we anticipate. In addition, there is no guarantee that these third parties will devote adequate time and resources to our activities or perform as required by our contract or in accordance with regulatory requirements, including maintenance of field trial or production information. If these third parties fail to meet expected deadlines, fail to transfer to us any regulatory or other information in a timely manner, fail to adhere to protocols, or fail to act in accordance with regulatory requirements or our agreements with them, or if they otherwise perform in a substandard manner or in a way that compromises the quality or accuracy of their activities or the data they obtain, then field trials and commercial production of our products in development may be extended or delayed with additional costs incurred, or our data may be rejected by the United States Department of Agriculture, Food and Drug Administration (" FDA"), the U. S. Environmental Protection Agency or other regulatory agencies. Ultimately, we are responsible for ensuring that each of our field trials and commercial production is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on third parties does not relieve us of our responsibilities. If our relationship with any of these third parties is terminated, we may be unable to enter into arrangements with alternative parties on commercially reasonable terms, or at all. Switching or adding growers or other suppliers can involve substantial cost and require extensive management time and focus. In addition, there is a natural transition period when a new farmer or other third party commences work. As a result, delays may occur, which can materially impact our ability to meet our desired development or commercial timelines. If we are required to seek alternative supply arrangements, the resulting delays and potential inability to find a suitable replacement could materially and adversely impact our business. Most of our collaborators have significant resources and development capabilities and may develop their own products that compete with or negatively impact the advancement or sale of products containing our traits. Most of our collaborators are significantly larger than us and may have substantially greater resources and development capabilities. As a result, we are subject to competition from many of our collaborators, who could develop or pursue competing products and traits that may ultimately prove more commercially viable than our traits. In addition, former collaborators, by virtue of having had access to our proprietary technology, may utilize this insight for their own development efforts, despite the fact that our collaboration agreements prohibit such use. The development or launch of a competing product by a collaborator may adversely affect the advancement and commercialization of any traits we develop and

any associated research and development and milestone payments and value-sharing payments we receive from the sale of products containing our traits. We depend on our key personnel and, if we are not able to attract and retain qualified technical and business personnel, we may not be able to grow our business or develop and commercialize our products. Our future performance depends on the continued services and contributions of our management team and other key employees, the loss of whose services might significantly delay or prevent the achievement of our technical or business objectives. The replacement of any member of our management team involves significant time and costs and such loss could significantly delay or prevent the achievement of our business objectives. A member of our leadership team who has been our employee for many years and therefore, has significant experience and understanding of our business, would be difficult to replace. Additionally, the majority of our workforce is involved in development and commercial activities. Our business is therefore dependent on our ability to recruit and maintain a highly skilled and educated workforce with expertise in a range of disciplines, including food innovation, supply chain management, agribusiness, marketing, and other subjects relevant to our operations. All of our current employees are at-will employees, and the failure to retain or hire skilled and highly educated personnel could limit our growth and hinder our research and development efforts. ~~We will be subject to a myriad of different laws and regulations governing hemp and our inability to comply with such laws in a cost-effective manner may have an adverse effect on our business and result of operations. Laws and regulations governing the use of hemp in the United States are broad in scope, subject to evolving interpretations, and subject to enforcement by a myriad of regulatory agencies and law enforcement entities. Federal and state laws and regulations on hemp may address production, monitoring, manufacturing, distribution, and laboratory testing to ensure that that the hemp has a delta-9 tetrahydrocannabinol concentration of not more than 0.3% on a dry weight basis. Federal laws and regulations may also address the transportation or shipment of hemp or hemp products. We may be subject to many different state-based regulations for hemp, all of which could require us to incur substantial costs associated with compliance requirements. The Drug Enforcement Administration ("DEA") issued an interim final rule to codify statutory amendments to the controlled substances act made by the 2018 farm bill. It is possible that the DEA will make additional changes in a final rule that may have a material impact on our hemp business and our ability to operate. The FDA has published guidance related to the CBD and hemp-extract business but has not formally released a regulatory framework for the industry. It is possible that the FDA will provide additional guidance or implement future regulations that may have a material impact on our hemp business. In addition, it is possible that additional regulations may be enacted in the future in the United States and globally that will be directly applicable to our research and development operations. We cannot predict the nature of any future laws, regulations, interpretations, or applications, nor can we determine what effect additional governmental regulations or administrative policies and procedures, when and if promulgated, could have on our business.~~ Our business is subject to the risks of earthquakes, fire, flood, crop losses, epidemics, and other catastrophic natural events, and security breaches, including cybersecurity incidents. Our ~~seed and grain~~ crops are vulnerable to adverse weather conditions, including windstorms, floods, drought and temperature extremes, which are common but difficult to predict. In addition, the crops are vulnerable to crop disease and to pests, which may vary in severity and effect, depending on the stage of production at the time of infection or infestation, the type of treatment applied and climatic conditions. Unfavorable growing conditions can reduce both crop size and quality. Weather conditions, disease or pest infestation could damage the crop in spite of precautions we would normally take to avoid such losses. 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 fire, flood, or earthquake, could cause substantial delays in our operations, damage or destroy our equipment, inventory, or development projects, and cause us to incur additional expenses. The insurance we maintain against natural disasters may not be adequate to cover our losses in any particular case. We utilize and critically rely upon information technology systems in all aspects of our business, including increasingly large amounts of data to support our products and advance our research and development. Failure to effectively prevent, detect, and recover from the increasing number and sophistication of information security threats could result in theft, misuse, modification, and destruction of information, including trade secrets and confidential business information, and cause business disruptions, delays in research and development, and reputational damage, which could significantly affect our results of operations and financial condition. Our use of hazardous materials exposes us to potential liabilities. Certain of our operations involve the storage and controlled use of hazardous materials, including laboratory chemicals, herbicides, and pesticides. This requires us to conduct our operations in compliance with applicable environmental and safety standards, and we cannot completely eliminate the risk of accidental contamination from hazardous materials. In the event of such contamination, we may be held liable for significant damages or fines, which could have a material adverse effect on our business and operating results. Most of the licenses we grant to our collaborators to use our proprietary genes in certain crops are exclusive within certain jurisdictions, which limits our licensing opportunities. Most of the licenses we grant our collaborators to use our proprietary genes in certain crops are exclusive within specified jurisdictions, so long as our collaborators comply with certain diligence requirements. This means that once genes are licensed to a collaborator in a specified crop or crops, we are generally prohibited from licensing those genes to any third party. The limitations imposed by these exclusive licenses could prevent us from expanding our business and increasing our product development initiatives with new collaborators, both of which could adversely affect our business and results of operations. Our commercial success depends on our ability to protect our intellectual property and our proprietary technologies and on the ability to operate without infringing the patents and other proprietary rights of third parties. Our success will depend in part on our ability to obtain and maintain patent protection both in the United States and in other countries for any products we successfully develop. The patents and patent applications in our patent portfolio are either owned by us, exclusively licensed to us, or co-owned by us and others and exclusively licensed to us. Our ability to protect any products we successfully develop from unauthorized or infringing use by third parties depends substantially on our ability to obtain and maintain valid and enforceable patents. Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering biotechnology inventions and the scope of claims made under these patents, our ability to obtain and enforce patents is

uncertain and involves complex legal and factual questions. Accordingly, rights under any issued patents may not provide us with sufficient protection for any products we successfully develop or provide sufficient protection to afford us a commercial advantage against our competitors or their competitive products or processes. In addition, we cannot guarantee that any patents will be issued from any pending or future patent applications owned by or licensed to us. Even if patents have been issued or will be issued, we cannot guarantee that the claims of these patents are, or will be, valid or enforceable, or provide us with any significant protection against competitive products or otherwise be commercially valuable to us. The U. S. Congress passed the Leahy- Smith America Invents Act, or the America Invents Act, which was signed into law in September 2011. The America Invents Act reforms U. S. patent law in part by changing the standard for patent approval from a “ first to invent ” standard to a “ first inventor to file ” standard and developing a post- grant review system. This new legislation affects U. S. patent law in a manner that may impact our ability to obtain or maintain patent protection for current or future inventions in the U. S. or otherwise cause uncertainty as to our patent protection. We may not have identified all patents, published applications or published literature that may affect our business, either by blocking our ability to commercialize our traits, by preventing the patentability of our traits by us, our licensors or co- owners, or by covering the same or similar technologies that may invalidate our patents, limiting the scope of our future patent claims or adversely affecting our ability to market our products. For example, patent applications are maintained in confidence for at least 18 months after their filing. In some cases, patent applications remain confidential in the United States Patent and Trademark Office (“ USPTO ”) for the entire time prior to issuance of a U. S. patent. Patent applications filed in countries outside the United States are not typically published until at least 18 months from their first filing date. Similarly, publication of discoveries in the scientific or patent literature often lags behind actual discoveries. Therefore, we cannot be certain that we or our licensors or co- owners were the first to invent, or the first inventors to file, patent applications on our processes, products or their uses. In the event that another party has filed a U. S. patent application covering the same invention as one of our patent applications or patents, we may have to participate in an adversarial proceeding, known as an interference, declared by the USPTO to determine priority of invention in the United States. If we or one of our collaborators are sued for infringing the intellectual property rights of a third party, such litigation could be costly and time consuming and could prevent us or our collaborators from developing or commercializing our products. Our ability to generate significant revenues from our products depends on our and our collaborators’ ability to develop, market and sell our products and utilize our proprietary technology without infringing the intellectual property and other rights of any third parties. In the United States and abroad there are numerous third- party patents and patent applications that may be applied toward our proprietary technology, business processes, or developed traits, some of which may be construed as containing claims that cover the subject matter of our products or intellectual property. Because of the rapid pace of technological change, the confidentiality of patent applications in some jurisdictions (including U. S. provisional patent applications), and the fact that patent applications can take many years to issue, there may be currently pending applications that are unknown to us that may later result in issued patents upon which our products in development or proprietary technologies infringe. Similarly, there may be issued patents relevant to our products in development of which we are not aware. These patents could reduce the value of the traits we develop or the plants containing our traits or, to the extent they cover key technologies on which we have unknowingly relied, require that we seek to obtain licenses or cease using the technology, no matter how valuable to our business. We may not be able to obtain such a license on commercially reasonable terms. If any third- party patent or patent application covers our intellectual property or proprietary rights and we are not able to obtain a license to it, we and our collaborators may be prevented from commercializing products containing our traits. As the agricultural biotechnology industry continues to develop, we may become party to, or threatened with, litigation or other adverse proceedings regarding intellectual property or proprietary rights in our technology, processes, or developed traits. Third parties may assert claims based on existing or future intellectual property rights and the outcome of any proceedings is subject to uncertainties that cannot be adequately quantified in advance. Any litigation proceedings could be costly and time consuming, and negative outcomes could result in liability for monetary damages, including treble damages and attorneys’ fees, if we are found to have willfully infringed a patent. There is also no guarantee that we would be able to obtain a license under such infringed intellectual property on commercially reasonable terms or at all. A finding of infringement could prevent us or our collaborators from developing, marketing or selling a product or force us to cease some or all of our business operations. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel may be diverted as a result of these proceedings, which could have a material adverse effect on us. Claims that we have misappropriated the confidential information or trade secrets of third parties could similarly have a negative impact on our business. Our success will depend in part on our ability to uphold and enforce patents or patent applications owned or co- owned by us or licensed to us, which cover products we successfully develop. Proceedings involving our patents or patent applications could result in adverse decisions regarding: • ownership of patents and patent applications; • rights concerning licenses; • the patentability of our inventions relating to our products; and / or • the enforceability, validity or scope of protection offered by our patents relating to our products. Even if we are successful in these proceedings, we may incur substantial costs and divert management’ s time and attention in pursuing these proceedings, which could have a material adverse effect on us. We are subject to governmental export and import controls that could impair our ability to compete in international markets due to licensing requirements and subject us to liability if we are not in compliance with applicable laws. Our products and products in development are subject to export control and import laws and regulations, including the U. S. Export Administration Regulations, U. S. Customs regulations, and various economic and trade sanctions regulations administered by the U. S. Treasury Department’ s Office of Foreign Assets Controls. Exports of our products and technology must be made in compliance with these laws and regulations. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including the possible loss of export or import privileges ; fines, which may be imposed on us and responsible employees or managers ; and, in extreme cases, the incarceration of responsible employees or managers. In addition,

changes in our products or solutions or changes in applicable export or import laws and regulations may create delays in the introduction and sale of our products and solutions in international markets, prevent our customers from deploying our products and solutions or, in some cases, prevent the export or import of our products and solutions to certain countries, governments or persons altogether. Any change in export or import laws and regulations, shift in the enforcement or scope of existing laws and regulations, or change in the countries, governments, persons or technologies targeted by such laws and regulations, could also result in decreased use of our products and solutions, or in our decreased ability to export or sell our products and solutions to existing or potential customers. Any decreased use of our products and solutions or limitation on our ability to export or sell our products and solutions would likely adversely affect our business, financial condition and results of operations. Adverse outcomes in future legal proceedings could subject us to substantial damages and adversely affect our results of operations and profitability. We may become party to legal proceedings, including matters involving personnel and employment issues, personal injury, environmental matters, and other proceedings. Some of these potential proceedings could result in substantial damages or payment awards that exceed our insurance coverage. We will estimate our exposure to any future legal proceedings and establish provisions for the estimated liabilities where it is reasonably possible to estimate and where an adverse outcome is probable. Assessing and predicting the outcome of these matters will involve substantial uncertainties. Furthermore, even if the outcome is ultimately in our favor, our costs associated with such litigation may be material. Adverse outcomes in future legal proceedings or the costs and expenses associated therewith could have an adverse effect on our results of operations. We may be required to pay substantial damages as a result of product liability claims for which insurance coverage is not available. We are subject to product liability claims with respect to our products, and as additional products integrating our traits reach commercialization, product liability claims may increasingly be a commercial risk for our business. Product liability claims against us or our collaborators selling our products that contain our traits, or allegations of product liability relating to seeds containing traits developed by us, could damage our reputation, harm our relationships with our collaborators, and materially and adversely affect our business, results of operations, financial condition, and prospects. Furthermore, while our collaboration agreements typically require that our collaborators indemnify us for the cost of product liability claims brought against us as a result of our collaborator's misconduct, such indemnification provisions may not always be enforced, and we may receive no indemnification if our own misconduct contributed to the claims. As a result of being a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting. We may not complete our analysis of our internal control over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock. Pursuant to Section 404 (a) of the Sarbanes- Oxley Act of 2002 (" the Act ") and the related rules adopted by the SEC and the Public Company Accounting Oversight Board, starting with the second annual report that we filed with the SEC after the consummation of our public offering, our management is required to report on the effectiveness of our internal control over financial reporting. Section 404 (b) of the Act requires that our independent registered public accounting firm will also need to attest to the effectiveness of our internal control over financial reporting if we qualify as an accelerated filer or a large accelerated filer. We are continuously improving our internal control environment. As a result, we may experience higher than anticipated operating expenses, as well as higher auditor fees during and after the implementation of these changes. If we are unable to implement any of the required changes to our internal control over financial reporting effectively or efficiently or are required to do so earlier than anticipated, it could adversely affect our operations, financial reporting, and results of operations and could result in an adverse opinion on internal controls from our independent registered public accounting firm. Our ability to use our net operating loss carryforwards to offset future taxable income may be subject to certain limitations. Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an " ownership change " is subject to limitations on its ability to utilize its NOLs to offset future taxable income. A significant portion of our existing NOLs are limited due to an known ownership change changes under IRC Section 382 that we experienced as a result of the common shares stock we issued in connection with the equity financings in December 2020 and January 2021 and December 2020 Offering. Future changes Changes in our stock ownership since 2021 or in the future, some of which are could be outside of our control, could result in an ownership change under Section 382 of the Code. If we undergo an ownership change in the future, our ability to utilize NOLs could be further limited by Section 382 of the Code. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. There is also a risk that, due to regulatory changes, such as suspensions on the use of NOLs, or other unforeseen reasons, our existing NOLs could expire or otherwise be unavailable to offset future income tax liabilities. For these reasons, we may not be able to realize a tax benefit from the use of our NOLs, whether or not we obtain experience profitability. Risks Related to Ownership of Our Common Stock Future Sales sales of a substantial amounts number of shares of our common stock, or the possibility that such sales could occur, could adversely affect the market price of our common stock. Future sales in the public market of our common stock, or shares issued upon exercise of our outstanding stock options or warrants, or the perception by the market that these issuances or sales might could occur, could cause our stock lower the market price to decline. Sales of a substantial number of our common stock or in the public market -- make it difficult or for us to raise additional capital. Our stockholders may experience substantial dilution and a reduction in the perception price that these sales might occur, could cause the they are able market price of our common stock to obtain upon decline and could impair our ability to raise capital through the sale of their shares additional equity securities. As of December 31, 2022 2023, there were 616 we had 1, 079 285, 337 shares of our common stock outstanding, substantially all of which approximately 587 we believe may be sold publicly, 028 subject in some cases to volume and other limitations, provisions or limitations in registration rights agreements, or prospectus- delivery or other requirements relating to the effectiveness and use of registration statements registering the resale of such shares were held by non- affiliates. All As of December 31, 2023, we had 41, 735 shares of our common stock issuable upon the exercise of outstanding stock options is freely transferable, except shares held by our " affiliates," as defined in Rule 144

under the Securities Act. We may also issue common stock or **our** options to purchase shares of our common stock that under our 2015 Omnibus Equity **equity** Incentive **incentive** Plan and our 2015 Employee Stock Purchase Plan. Securities issued under these plans will be registered under a Form S-8 and are freely tradable upon issuance. There were 22,456 options exercisable as of December 31, 2022 at a weighted- average exercise price of \$ 215-139. **20-82 per share and we had outstanding warrants and preferred investment options to purchase 1,831,909 shares of common stock at a weighted- average exercise price of \$ 24.63 per share. Subject to applicable vesting requirements, upon exercise of these options or warrants, the underlying shares may be resold into the public market, subject in some cases to volume and other limitations or prospectus delivery requirements pursuant to registration statements registering the resale of such shares. In the case of outstanding options and warrants that have exercise prices that are below the market price of our common stock from time to time, our stockholders would experience dilution upon the exercise of these options and warrants.** Our stock price has been and may continue to be volatile, and you could lose all or part of your investment. The market price of our common stock ~~since our initial public offering~~ has been and may continue to be volatile. **After making adjustments for the impact of reverse stock splits,** ~~Since~~ ~~since~~ shares of our common stock were sold in our initial public offering in May 2015 at a price of \$ 6,400.00 per share, our stock price has ranged from \$ ~~10-2.48-65~~ to \$ 6,984.00, through December 31, 2022-2023. The market price of our common stock is subject to wide fluctuations in response to various risk factors, some of which are beyond our control and may not be related to our operating performance, including: • addition or loss of significant customers, collaborators or distributors ; • changes in laws or regulations applicable to our industry or traits ; • additions or departures of key personnel ; • the failure of securities analysts to cover our common stock after an offering ; • actual or anticipated changes in expectations regarding our performance by investors or securities analysts ; • price and volume fluctuations in the overall stock market ; • volatility in the market price and trading volume of companies in our industry or companies that investors consider comparable ; • share price and volume fluctuations attributable to inconsistent trading volume levels of our shares ; • our ability to protect our intellectual property and other proprietary rights ; • sales of our common stock by us or our stockholders ; • the expiration of contractual lock- up agreements ; • litigation involving us, our industry, or both ; • major catastrophic events ; and • general economic and market conditions and trends. Further, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. ~~In addition, the stock prices of many seed and agricultural biotechnology companies have experienced wide fluctuations that have often been unrelated to the operating performance of those companies.~~ These broad market and industry fluctuations, as well as general economic, political, and market conditions such as recessions, interest rate changes, or international currency fluctuations, may cause the market price of our common stock to decline. If the market price of our common stock fluctuates or declines, you may not realize any return on your investment and may lose some or all of your investment. We expect our operating results to vary significantly from quarter to quarter, which may cause our stock price to fluctuate widely. We expect our quarterly operating results to fluctuate widely and unpredictably for the following reasons, among others: • our significant customer concentration ; • the variable timing, stage, and results of our and our collaborators' development, and regulatory activities ; • the effectiveness of our marketing and advertising efforts; • the impact of seasonality in agricultural operations on our sales of ~~hemp seeds and products that incorporate our wheat traits~~; • adjustments to inventory due to excess or slow- moving; • supplier, manufacturing, or quality problems ; and • variance in the timing of customer and distributor orders for our products. Any unanticipated change in revenues or operating results is likely to cause our stock price to fluctuate since such changes reflect new information available to investors and analysts. Because we do not expect to pay any dividends for the foreseeable future, investors may be forced to sell their stock to realize a return on their investment. We do not anticipate that we will pay any dividends to holders of our common stock for the foreseeable future. Any payment of cash dividends will be at the discretion of our board of directors and will depend on, among other things, our results of operations, cash requirements, financial condition, contractual restrictions including compliance with covenants under our debt agreements, and other factors that our board of directors may deem relevant. Our ability to pay dividends might be restricted by the terms of any indebtedness that we incur in the future. In addition, certain of our current outstanding debt agreements prohibit us from paying cash dividends on our common stock. Consequently, you should not rely on dividends to receive a return on your investment. Our failure to meet the continued listing requirements of Nasdaq could result in a delisting of our common stock, which could negatively impact the market price and liquidity of our common shares and our ability to access the capital markets. Our common stock is listed on The Nasdaq Capital Market. If we fail to satisfy the continued listing requirements of the Nasdaq Stock Market (" Nasdaq"), such as the corporate governance requirements or the minimum closing bid price requirement, Nasdaq may take steps to delist our common stock. Such a delisting would have a negative effect on the price of our common stock, impair the ability to sell or purchase our common stock when persons wish to do so, and any delisting materially adversely affect our ability to raise capital or pursue strategic restructuring, refinancing or other transactions on acceptable terms, or at all. Delisting from The Nasdaq Capital Market could also have other negative results, including the potential loss of institutional investor interest and fewer business development opportunities. ~~On September 27, 2022, we received a notice from the Nasdaq Listing Qualifications Department of Nasdaq informing us that because the closing bid price of our common stock had been below \$ 1.00 per share for 30 consecutive business days, we no longer complied with the minimum bid price requirement for continued listing on The Nasdaq Capital Market. Nasdaq Listing Rule 5550 (a) (2) requires listed securities to maintain a minimum bid price of \$ 1.00 per share, and Nasdaq Listing Rule 5810 (e) (3) (A) provides that a failure to meet the minimum bid price requirement exists if the deficiency continues for a period of 30 consecutive business days. The notice had no immediate effect on the listing or the trading of our common stock on The Nasdaq Capital Market. Pursuant to Nasdaq Listing Rule 5810 (e) (3) (A), the notice letter stated that we had an initial compliance period of 180 calendar days, or until March 27, 2023, to regain compliance with the minimum bid price requirement. To regain compliance, the closing bid price of our common stock must meet or exceed \$ 1.00~~

~~per share for a minimum of 10 consecutive business days during the 180-calendar day grace period. On March 15, 2023, we received a letter from the Listing Qualifications Department of Nasdaq notifying us that as a result of the closing bid price of our common stock having been at \$ 1.00 per share or greater for at least ten consecutive business days, we had regained compliance with Nasdaq's minimum bid price requirement under Nasdaq's Marketplace Rule 5550 (a) (2) for continued listing on The NASDAQ Capital Market, and the matter was now closed.~~