

Arcadia Biosciences Investor Presentation

September 2019

Forward-looking statements



- “Safe Harbor” statement under the Private Securities Litigation Reform Act of 1995: This presentation contains forward-looking statements about the company and its products, including statements relating to components of the company’s long-term financial success; the company’s traits, commercial products, and collaborations; the company’s ability to manage the regulatory processes for its traits and commercial products; the company’s anticipated financial results; current and future products under development; additional collaboration agreements; the regulatory process; business and financial plans; and other non-historical facts.
- Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially, and reported results should not be considered as an indication of future performance. These risks and uncertainties include, but are not limited to: the company’s and its partners’ ability to develop commercial products incorporating its traits and complete the regulatory review process for such products; continued competition in seed traits and other products; the company’s compliance with laws and regulations that impact the company’s business, and changes to such laws and regulations; the company’s reliance on its collaborators to commercialize products incorporating its seed traits; the company’s future capital requirements and ability to satisfy its capital needs; the company’s exposure to various contingencies, including those related to intellectual property protection, success of field trials, regulatory compliance, the speed with which regulatory approvals are received, and public acceptance of biotechnology products; developments related to foreign governmental regulations, political climate, currencies and economies; successful operation of the company’s joint ventures; fluctuations in commodity prices; the company’s ability to obtain a significant portion of the increased value to farmers from products that incorporate its traits; and the effect of weather conditions, natural disasters and accidents on the agriculture business or the company’s facilities.
- Further information regarding these and other factors that could affect the company’s financial results is included in filings the company makes with the Securities and Exchange Commission from time to time, including the section entitled “Risk Factors” in the company’s Annual Report on Form 10-K for the year ended December 31, 2018. These documents are available on the SEC Filings section of the Investor Relations pages of the company’s website at www.arcadiabio.com. All information provided in this presentation and in the attachments is as of the date hereof, and Arcadia Biosciences, Inc. undertakes no duty to update this information.

Arcadia Biosciences is a leader in enhancing the quality, nutritional value and production efficiency of plant-based ingredients



*Using advanced
plant breeding
and gene editing
technologies*



*Proprietary
optimization of crops
to improve health
benefits, quality and
productivity*



*Accelerating
formulation &
commercialization
innovation through
partnerships with
industry leaders*



*Developing
specialty ingredients
with advanced
nutritional profiles*



Founded in 2002 ■ Public company in 2015 (Nasdaq: RKDA) ■ Headquarters in Davis, CA

Arcadia Biosciences innovations meet a wide variety of health, nutrition and performance needs



IMPROVE

- Shelf life
- Dietary fiber
- Oil quality
- Nutrient profile
- Plant proteins
- Flavor and color



REDUCE

- Allergenicity
- Calories
- Added fibers and sugars
- Crop variability
- Environmental impact



MANAGE

- Yield and quality
- Drought tolerance
- Herbicide tolerance
- Plant resilience
- Growth cycle

Using our technology platform and proprietary libraries

Our technology platform leverages our core capabilities to introduce new attributes to crops

TRAIT DISCOVERY



- Leading TILLING (non-GM) researchers and proprietary libraries; Patented traits
- CRISPR Gene-editing capabilities in novel crops

COMPUTATIONAL & ACCELERATED BREEDING



- Powerful databases of public and proprietary information leveraged for attribute targeting;
- Up to four crop generations per year through accelerated breeding methodology

GERMPLASM



- Proprietary varieties of hemp, oilseeds, heirloom wheat and durum;
- Germplasm partnerships with leading public and private programs

- Breeding into commercial public varieties
- Testing production in multiple locations
- Multi-hemisphere, year-round production
- Partnering with seed producers
- Consumer product testing with mid/ large food companies

Farmers/ Seed Co's



Processors



Food Companies



Arcadia's product portfolio addresses large global market opportunities through strategic partnerships

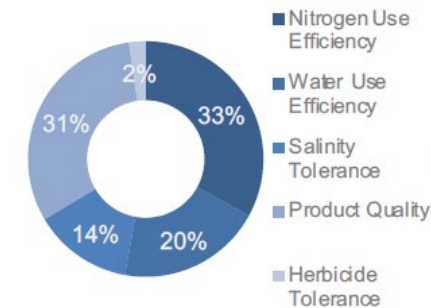
Key crop & ingredient traits

Leading Traits	US Market
Wheat <ul style="list-style-type: none">• High-fiber resistant starch• Reduced gluten• Extended shelf-life	\$9.7B
Hemp (CBD) <ul style="list-style-type: none">• Yield and quality• Plant resilience• Growth cycle	\$16.0B
Soy <ul style="list-style-type: none">• Drought tolerance• Herbicide tolerance	\$12.7B

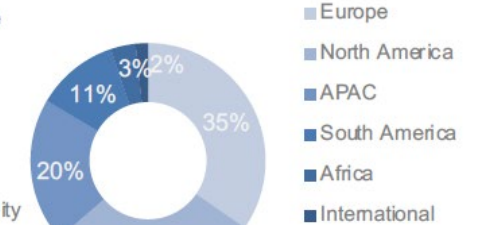
Impressive portfolio of intellectual property in trait technology

Owns or exclusively controls over 200 patents worldwide

Patent by technology



Patent by geography



Building on over 15 years of industry expertise

- Wheat market estimate represents farm-gate value of all US wheat
- Hemp estimate for 2022 – The Brightfield Group
- Soy seed market (31% of total 2017 US Soy revenue)



Arcadia's non-GM wheat portfolio includes multiple products



Addresses
\$9.75B US
flour market

GoodWheat™ Portfolio



Reduced Gluten

- Reduces allergenic gluten levels by 65%
- Increases levels of essential amino acids
- Target as high Lysine feed

Future Product Innovations

- Wheat yield – YB traits impacting grain size, grain filling & plant architecture
- Herbicide Tolerant Wheat

Wheat Collaborations

Ardent Mills

- Extends shelf life of milled whole wheat flour
- Improves taste of whole wheat by reducing bitterness associated with rancidity

Bay State Milling

- Improves TDF values 2-6X std wheat
- Reduces glycemic response to improve insulin sensitivity
- Improves gut health & colon health

HB4 drought and herbicide tolerant soybeans are advancing through field trials and regulatory progress



- Developed through Verdeca joint venture with Bioceres



Addresses
\$12.7B US
Soy market

- 2018 field trials coincided with drought conditions, demonstrating benefits of trait
- HB4 and herbicide tolerant trait stack approved in all major soy bean producing countries
- Third season of breeding trials completed
- First sales expected in 2020, pending import approval in China

Development phase:

1

2


3

4

5

C

Arcadia Specialty Genomics™ leverages our extensive plant science expertise to improve hemp

- Hemp lags behind other crops in advanced breeding to improve cultivation and consistency
 - Suboptimal genetics threaten the scalability and long-term viability of the industry
- 

Farming & add'l



Soybeans designed to:

- Mitigate drought stress

Wheat designed to:

- Extend shelf-life
- Reduce gluten allergen (by 70%) and be high in fiber
- Produce more amylose, 94% vs. 25-30%, a resistant starch with digestive health benefits, and others in diabetes and bowel cancer prevention

Potency increases for products & more



Safflower designed to:

- Over-express an omega-6 fatty acid with inflammation-reducing traits, gamma linolenic acid (GLA)



Hemp potential in:

- Productivity
- Pest resistance
- Quality consistency
- Favored quality traits:
 - CBD profile
 - Flavor



CBD potential in:

- Yields, e.g. incl. CBD %
- Seeds, e.g. olives w/ CBD
- Products, e.g. foods & oils
- Regulatory hurdles:
 - Arcadia's past FDA work in other food ingredient approvals appears useful in CBD aspirations

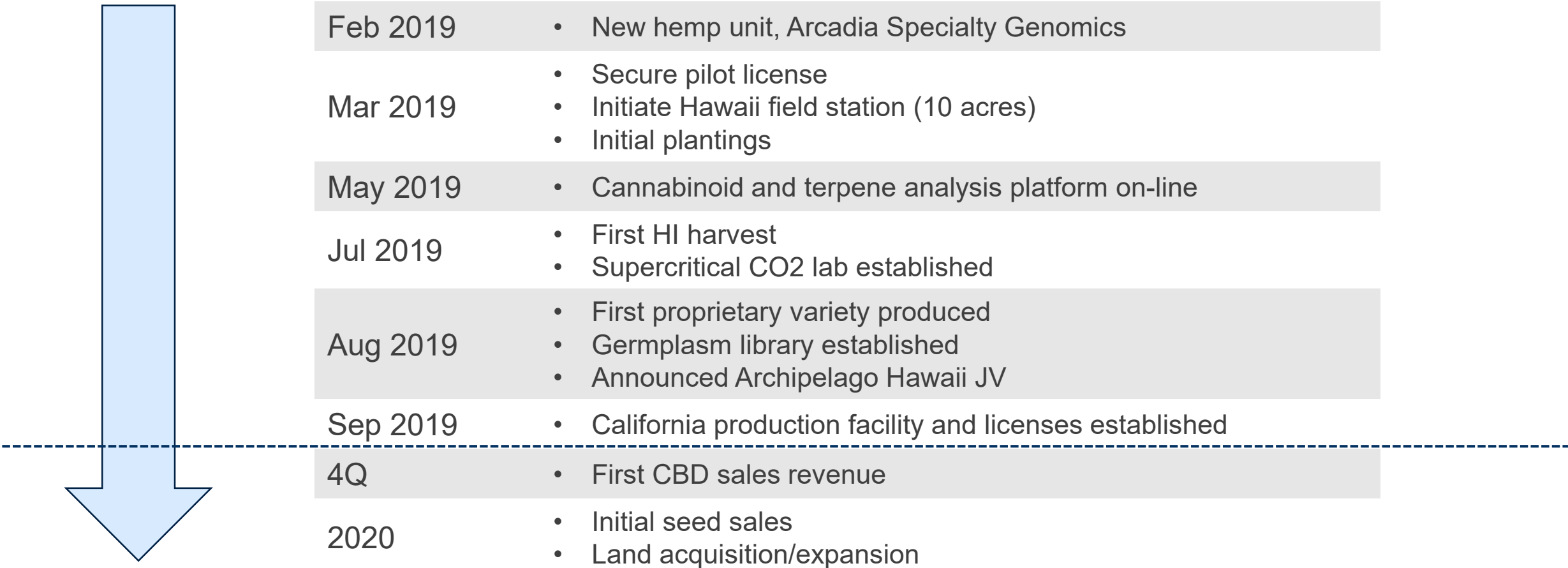
Addresses
\$16.0B US
CBD market

Dedicated unit to focus on hemp innovation and product formulation



Swift, focused progress toward leadership position

Trusted source in agricultural genetic technology with ability to lead in hemp; Major milestones reached in short time



Archipelago™ Ventures creates vertically integrated Hawaiian hemp/CBD company



- Formed August 2019. Joins Arcadia's extensive genetic expertise and resources with Legacy Ventures' proven experience in extraction and distribution
- Creates one vertically integrated supply chain, from seed to sale, to deliver superior hemp-derived CBD products.
- Leverages Hawaii's unique geographic and climate advantages for growing hemp year-round and provides access to key international markets.
- First sales of superior hemp extract expected in late 2019, in line with regulatory guidelines.
- JV contracting with farmers to model the economic benefits of CBD hemp farming.



Swift progress towards vast germplasm estate, TILLING library and high value traits

Breeding and genetic targets under evaluation

Plant content	Plant resiliency	Growth cycle
Increase flower yield	Resist mildew	Shorten interval to flowering
Increase resin yield	Resist pests	Increase rooting speed
Knock out THC; Optimize terpene expression	Genetic stability (i.e., does not hermaphrodite)	“Autoflowering” (i.e. release from dark/light requirements)
Regulate expression of high-value cannabinoids	Improve plant architecture for disease resistance	Improve plant architecture for machine harvest

- Established indoor growth facilities in Davis - finalizing SOPs & breeding operations
- Developed internal platform to analyze cannabinoid and terpene profiles
- Developed supercritical CO2 extraction capabilities in Davis
- Extensive testing of Hawaiian germplasm
- Achieved major milestone with the first proprietary variety developed in house
- Established germplasm library containing sufficient genetic variation to fuel breeding pipeline.
- TILLING variations underway

Focused on delivering key milestones in 2019

GoodWheat™

- Scale-up production and achieve first commercial sales
- Secure CPG and processor alliances for wheat ingredients
- Test market GoodWheat in bread, pasta and/ or feed
- Execute branding strategy

Progress

Progress

Progress

HB4 Drought Tolerant Soybeans

- Prepare for launch in Argentina in 2020, pending import approval in China

Progress

Arcadia Specialty Genomics™

- Build proprietary germplasm estate
- Secure partnerships
- Achieve research milestones

Progress

GoodWheat™

- ✓ Production of >4,000 acres in 2019; Sales by Q4
- ✓ Announced Bay State Milling / Arista agreement
- ✓ 3 Universities (Melbourne; UCDx3); 6 new CPG's

HB4 Drought Tolerant Soybeans

- ✓ Brazil; USDA

Arcadia Specialty Genomics™

- ✓ 3 Research facilities
- ✓ Archipelago
- ✓ Germ plasm and TILLING libraries underway
- ✓ New varieties being discovered

International Baking Industry Expo 2019



Financial highlights: Solid cash reserves and no debt

Recent management guidance

Initial revenues in 2019	Wheat; Hemp
Total Revenues for 2020	> \$10.0 Million
Total Revenues for 2021	> \$30.0 Million
Positive net cash from operations	Mid-to-late 2021

Financial metrics June 30, 2019

Cash	\$20.0M
Debt	\$0
Shares O/S	6.3M
Warrants and options	5.2M

Recent financing activity

	Shares	Cash in
September warrant exercises	1.1M	\$5.3M
September HCW financing	1.3M	\$10.0M

Investment highlights

Strong market veins

Hemp's legalization allows a well-positioned Arcadia to apply its proprietary scientific methods to hemp & CBD – two U.S. markets expected to grow rapidly, with 27% & 43% CAGRs between 2018 – 2025, respectively. Meanwhile, interest and investments from large corporates, such as AB InBev, continue to fuel growth and popularity.

Trusted source

Gene editing capabilities and portfolio of patent-protected crop traits are relied upon by partners around the world to achieve consistent plants and genetics, and the team maintains its ability to continue to work closely with universities and global research institutions.

Proven model

Proven end-to-end supply chain capabilities from production to end-products on shelves while improving several plants' value and expanding farm productivity. Examples include and increasing the fiber and shelf life of wheat, while reducing the gluten content and designing safflower to over-express an omega-6 fatty acid, GLA.

Premier technology

Owns or exclusively controls a continuously expanding portfolio of over 200 patents worldwide spanning several technological applications and nuanced geographies, which are depended upon by businesses around the world with commercialization abilities in multiple jurisdictions, e.g. Only US company outside of 'Big 3' to commercialize a GMO row crop.

Undervalued

The intellectual property, intrinsic value and broader company are being undervalued due to intellectual property disputes which are expected to be resolved prior to 2020.

Team & focus

Impressive team of researchers, management, investors, and partners arguably the best-positioned in agricultural technology to take advantage of Hemp & CBD market growth with track record, capabilities, and new and fully dedicated cannabis research and commercialization venture.



Thank you!