

Arcadia Biosciences Overview

January 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, 2017. These documents are or will be 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 improving the nutrition and quality of food ingredients while improving crop productivity



Using advanced plant breeding and gene editing technologies

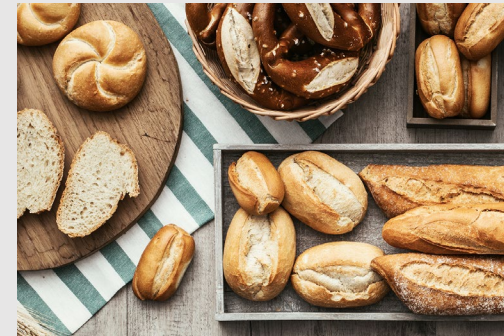
TILLING
CRISPR-Cas9
Transgenics



Accelerating innovation through partnerships with industry leaders



Developing consumer-desired specialty ingredients




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

Consumer demands and challenges in the food supply chain create opportunities for innovation



Food production systems are stressed

- Climate and pests mount challenges
- One third of all crops grown for consumption become food waste
- Commodity prices remain low
- Government regulators, NGOs and consumers demand reduced crop inputs



Consumers expect more from their food

- Clean labels
- Authentic, natural foods
- Functional foods with health benefits
- New protein alternatives
- Reduced environmental impact

Arcadia Biosciences innovations address the challenges facing our food systems



IMPROVE

- Shelf life
- Dietary fiber
- Nutrient profile
- Amino acid
- Plant proteins
- Flavor and color



REDUCE

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



MANAGE

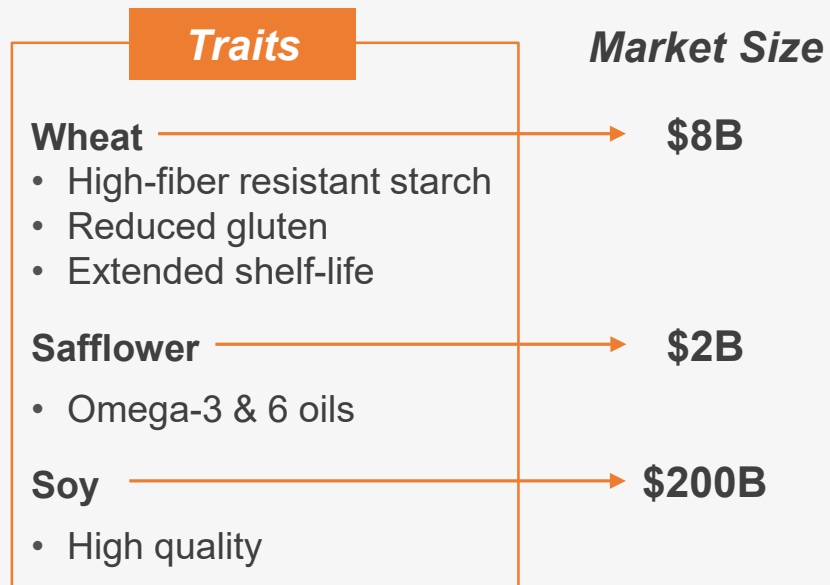
- Increased yield
- Reduced pesticide
- Herbicide tolerance
- Reduced nitrogen
- Manage drought and salt stress

Using our non-GM breeding platform and proprietary libraries or GM techniques

Arcadia's product portfolio addresses a large global market opportunity

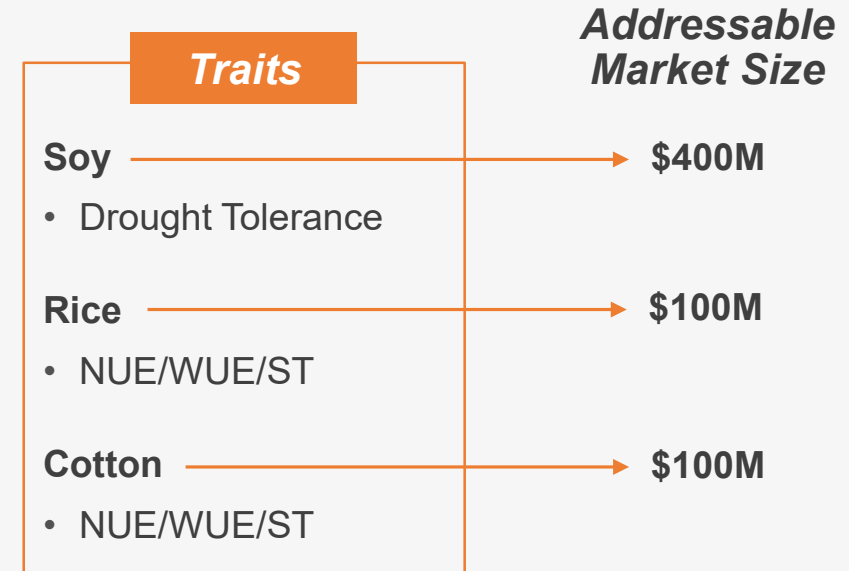
Health & Nutrition

Increasing nutrient and trait quality in crops to meet consumer health demands



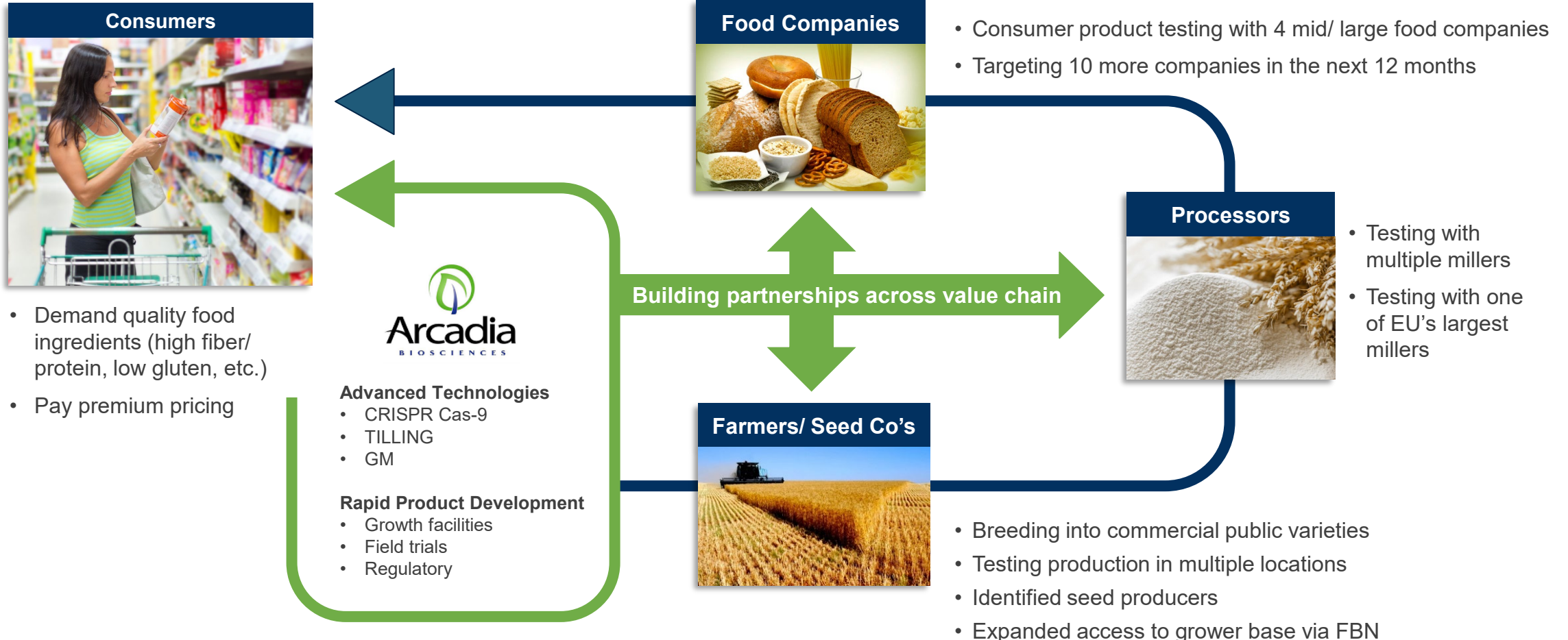
Crop Productivity

Addressing crop productivity through intrinsic yield and abiotic stress reduction



Building on over 15 years of industry expertise

Health & nutrition business model extracts value throughout the food supply chain

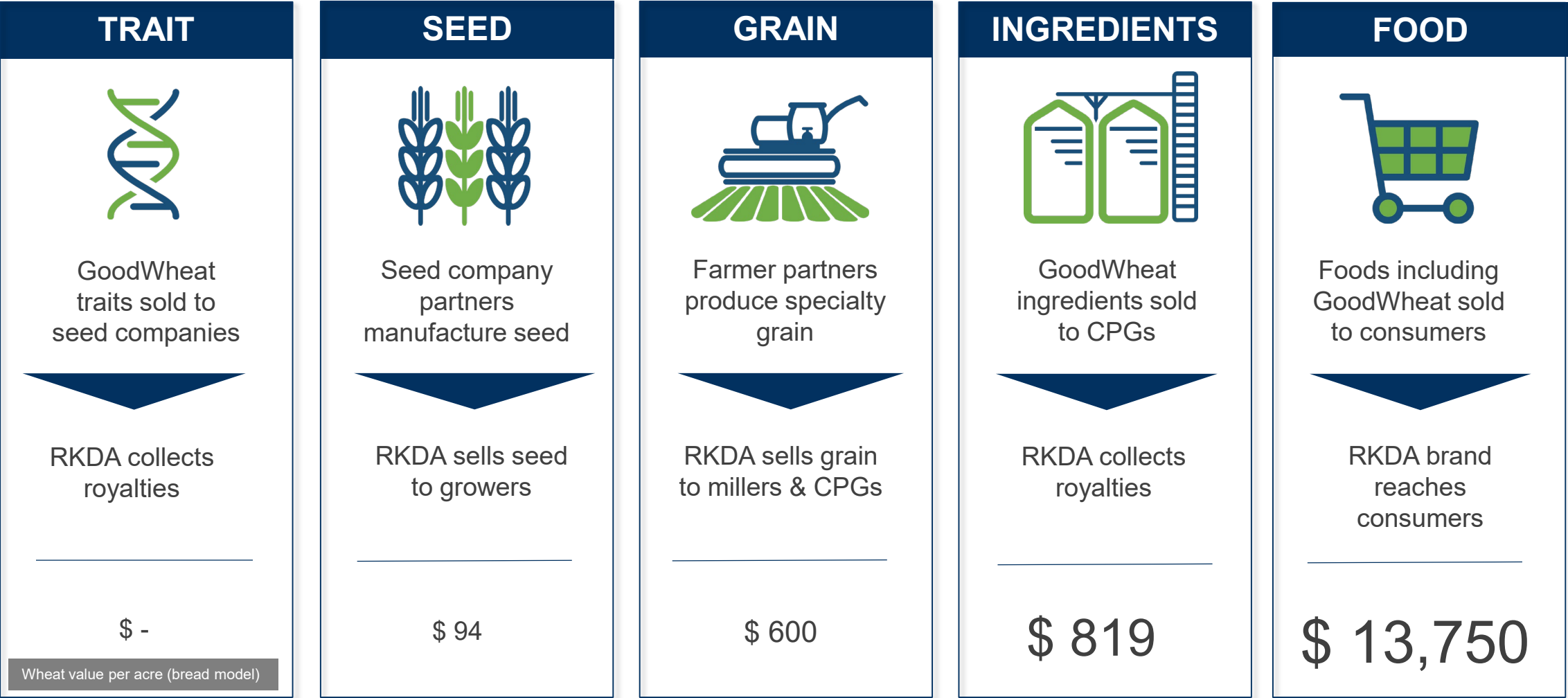


GoodWheat™ redesigns wheat as a functional food, with new value throughout the chain


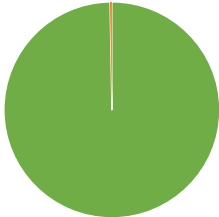
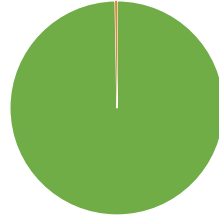
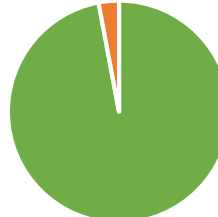




- GoodWheat portfolio of products includes:
 - High fiber Resistant Starch wheat
 - Reduced Gluten wheat
 - Extended Shelf Life wheat
 - Future wheat innovations
- Adds value to the wheat supply chain by enabling a wider range of choices to meet consumer demands
- Allows consumers to enjoy unique health benefits in their favorite foods
- Delivers distinct market differentiation for consumer food companies to provide specialty products to discerning consumers



GoodWheat business model presents multiple opportunities for revenue capture



Example: Resistant Starch (RS) GoodWheat Revenue Opportunity

	TRAIT	SEED	GRAIN	INGREDIENTS
Market Share	 <p>Target share : 10%</p>	 <p>Target share : 0.28%</p>	 <p>Target share : 0.3%</p>	 <p>Target share : 3%</p>
2018 Metrics	<ul style="list-style-type: none"> Develop access to leading germplasm partners 	<ul style="list-style-type: none"> Increase network to 265K acres Initiate 3-4 varieties 	<ul style="list-style-type: none"> Capture 0.3% of grain demand ² 	<ul style="list-style-type: none"> Testing with 8-12 food companies
Revenue Potential ¹	 <div>Revenue from trait royalties: \$20 – 40M</div>	 <div>Revenue from seed sales: \$10M - \$15M</div>	 <div>Revenue from grain sales: \$50 – 70M</div>	 <div>Revenue from ingredient sales:³ \$215 – 325M</div>

1: Revenue from RKDA LTP. Mature year = ten years after initial launch of first varieties.

2: US grain production 2018 – source USDA/ERS July 13, 2018

3: Statista: US Sales of wheat products = \$8,863 M in 2016

Collaborating with partners for significant advantage

Health & Nutrition



Active Targets

- Consumer Packaged Goods Co's
- Expanded milling/processing partner coverage in EU, Japan and Australia

Crop Productivity



Além da produtividade



Strategic alliances with global players to develop and commercialize traits

Arcadia's competitive advantages allow for accelerated market entry



In-house trait discovery

- Unique patent-protected, portfolio of traits for diverse crops
- Leading TILLING researchers, unmatched in their years of experience
- Proprietary TILLING libraries for key broad-acre crops, fruit & vegetables
- CRISPR-Cas9 gene editing capabilities



Accelerated breeding processes and germplasm

- Up to four generations per year through accelerated breeding
- Proprietary heirloom wheat, durum and oilseed varieties
- Germplasm partnerships with leading public programs in North America



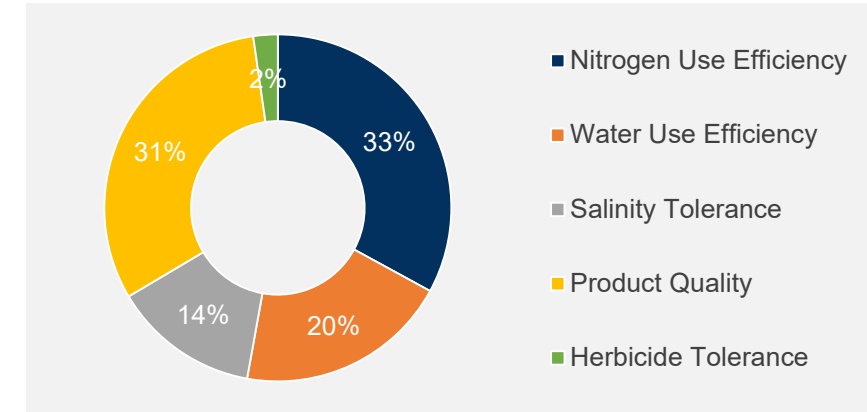
Field trial, regulatory and production capabilities

- Home based in USA, global capabilities
- Diverse facilities including: Lab, Greenhouse, Field Research Farm
- In-house oilseed production optimized for best cost position
- Secured partners for seed bulking and grain/oil production

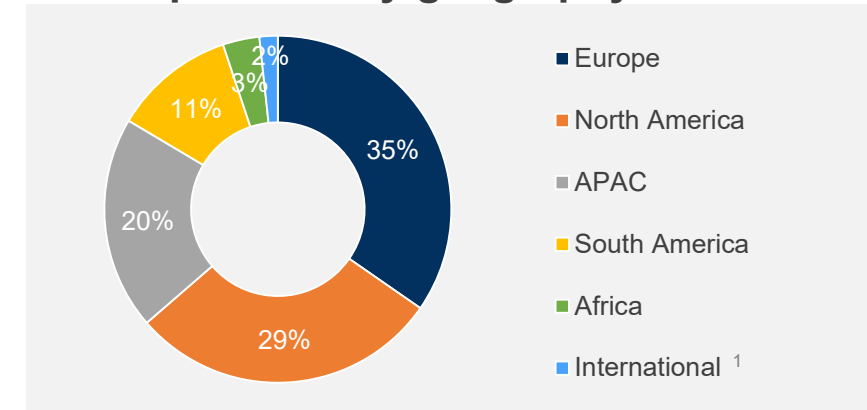
Strong patent portfolio addressing a variety of trait technologies

- Owns or exclusively controls 216 patents worldwide in 30 families
- Issued 48 patents and filed 53 new patent applications since January 2015
- Owns patents in most key production markets for specific crops
- Unique ability to achieve full control over mutation enables the company to obtain patents on non-GM traits

Patent portfolio by technology

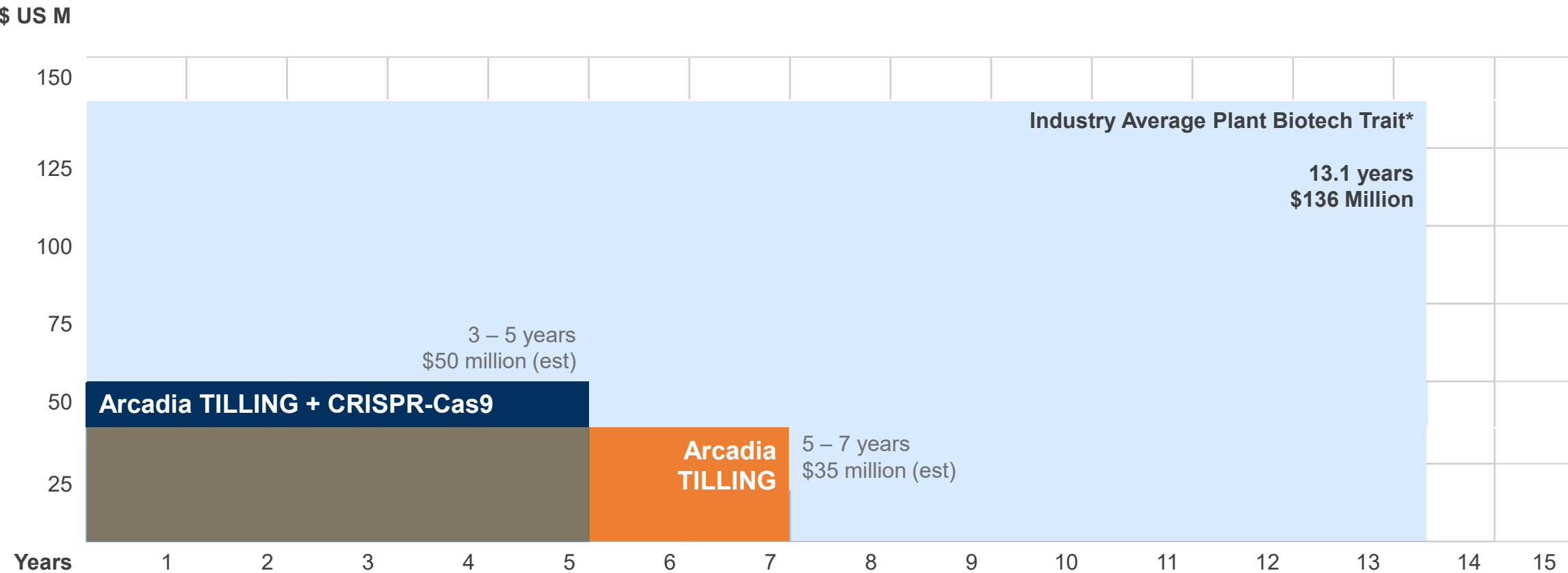


Patent portfolio by geography



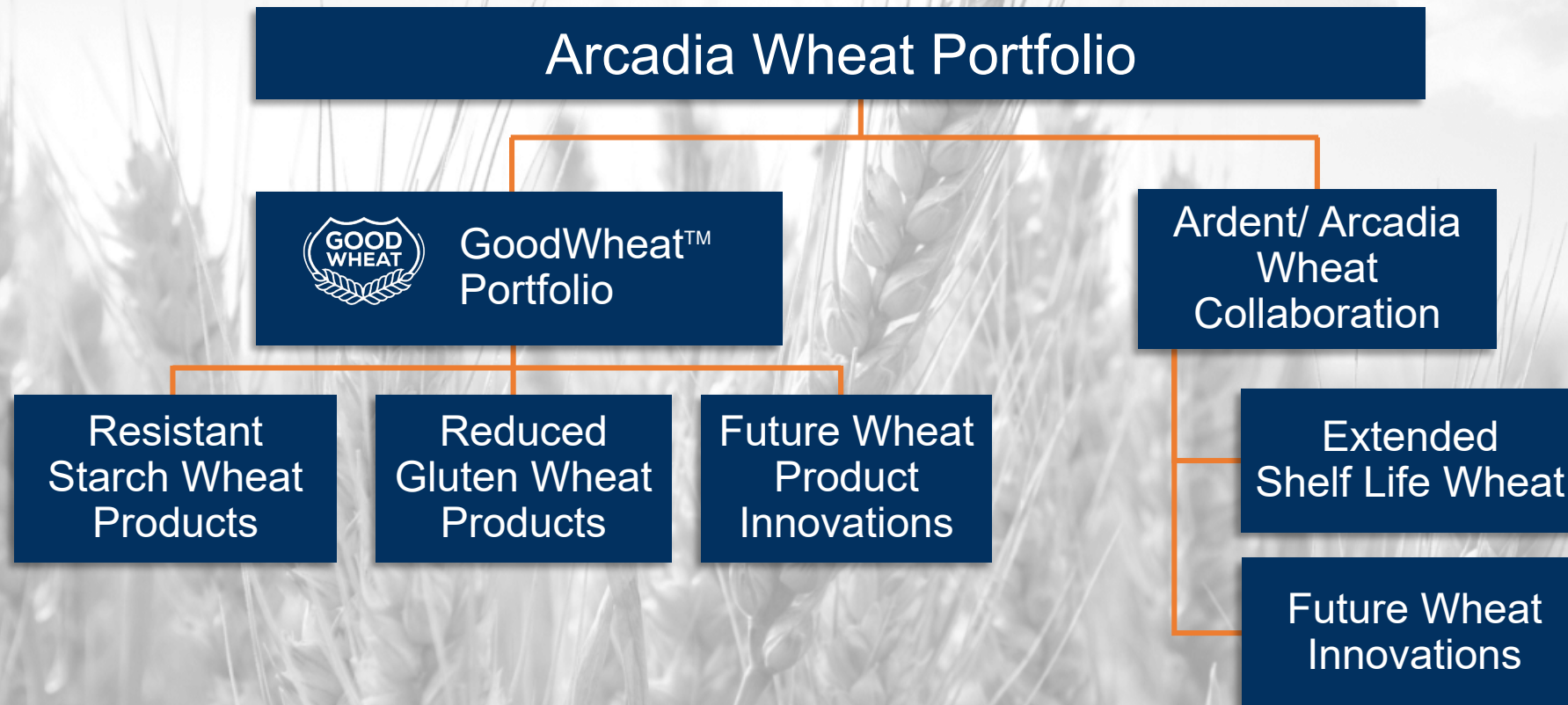
Note: International applications filed under the Patent Cooperation Treaty

Arcadia's R&D processes shorten timeline to launch and allow broader globalization



* CropLife, 2011

Arcadia's non-GM wheat portfolio includes multiple products



In 2018, we've made significant advances towards commercialization of Resistant Starch GoodWheat

Achieved key technical milestones

- 94% amylose (vs. 25%-30% in traditional wheat)
- High fiber levels that meet FDA requirements for “high in fiber” and “good source of fiber” designations

Breeding into commercial germplasm

- Arrangements with public breeding institutions to introduce trait into commercial germplasm
- Produced increased acres of wheat across several states in US to supply customers for testing

Building partnerships across wheat value chain

- Seed production
- Logistics – identity preservation
- Grain millers
- Food companies

Development phase:

1


2

3

C

Collaborating with Ardent Mills to develop and commercialize wheat innovations



- Ardent Mills is the leading flour milling and food ingredient company in North America 
- First project is Extended Shelf Life wheat – to improve taste, encourage whole grain consumption and reduce waste
- Partnership leverages Arcadia's innovations in non-GM wheat trait development and Ardent Mills' expertise and market reach
- Consumers benefit because of the health benefits of whole grains; food companies benefit because of the extended shelf life and reduced waste
- Arcadia recently received US patent for the technology in wheat
- Whole grain market is \$46B, growing 6% per year¹

¹ Statistics MRC



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

- Developed through Verdeca joint venture with Bioceres 
- Two years of trials in commercial germplasm completed
- Data shows increased yield in low yielding and drought prone areas
- Approved in Argentina, submitted for import approval in China
- FDA approval in 2017, submitted for USDA approval
- Regulatory studies in progress for submission in Europe

Development phase:

1 2 3 4 5 C

Advancing non-GM Extended Shelf Life tomatoes with partner in India



- Shriram Bioseed is a private hybrid seed development company in India
- Technical milestone achieved in Q3
- Results showed significant and consistent improvements in field yield and fruit quality, such as firmness, shelf life and color development
- New hybrids are in pre-commercial, wide area testing
- Targeting additional milestones in 2019
- Bioseed expects to commercialize in Q4 2019

Development phase:

1

2

3

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We are focused on delivering key milestones in 2018 – 2019

GoodWheat

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

HB4 Drought Tolerant Soybeans

- Prepare for launch in Argentina in 4Q 2019, pending approval in China
- Submit EU regulatory dossier

Strategy & Organization

- Build out commercialization expertise and refine go-to-market strategies
- Continue cost containment

Financial highlights: Solid cash reserves and no debt

September 30, 2018

Cash	\$ 24.6M
Debt	\$ 0
Shares O/S	4.8M
Warrants and options	3.4M
Average burn per quarter (prior 4 quarters)	\$3.6M

Arcadia's progress positions the launch of 3 products in 3 crops in the next 12-18 months



- Non-GM GoodWheat in the Americas
- HB4 Drought Tolerant Soybeans in Argentina
- Non-GM Extended Shelf Life Tomatoes in India (launched by Shriram Bioseed)

Arcadia's growth strategy focuses on non-GM wheat health and nutrition products

Innovative Product Portfolio	Leading platform of health and nutrition ingredients <ul style="list-style-type: none">• Exclusive technologies with strong intellectual property• Created using non-GM techniques for widest market potential
Consumer Ingredient Brand	Build GoodWheat brand to maximize value capture <ul style="list-style-type: none">• Re-inventing wheat as a functional food, enable new routes of revenue capture throughout the value chain
Portfolio of Productivity Traits in other Crops	Providing innovation to meet the needs of farmers and food chain <ul style="list-style-type: none">• GM traits that address climate stresses• HB4 drought tolerant soybeans preparing for launch in Argentina
Operating Performance	Strong leadership geared to transition company <ul style="list-style-type: none">• Reduced operating costs; no debt• Focused deliverables and aligned R&D activities• Building commercial organization

Thank you!