



Arcadia
B I O S C I E N C E S

5th Annual Gateway Conference

September 8, 2016

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 and ongoing plans; 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 Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 and additional information that will be set forth in our Form 10-Q for the quarter ended June 30, 2016. 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 is well positioned for future growth

- ④ Assembled a leading team of science, product development, regulatory and business professionals
- ④ Trait development focused on reducing abiotic stress
- ④ Unique business model leverages partnerships with seed companies and processors to bring products to market
- ④ Numerous licenses in place with global partners in major crops
- ④ Robust pipeline of GM and non-GM traits
- ④ Multiple products in advanced stages of development

Arcadia is led by seasoned executive team with substantial ag-biotech experience



Raj Ketkar

President & CEO

- 30+ years ag-biotech development
- Monsanto, Mahyco-Monsanto Biotech



Roger Salameh

Chief Operating Officer

- 24+ years ag-biotech business development
- Calgene, Monsanto



Vic Knauf

Chief Scientific Officer

- 30+ years ag-biotech development
- Calgene, Monsanto, Tilligen/ Anawah



Wendy Neal

Vice President & Chief Legal Officer

- 19+ years intellectual property and corporate law
- Snell & Wilmer LLP, GE Aircraft Engines



Steven Brandwein

Interim CFO

- 30+ years financial management
- US Treasury Department, Dial Corporation



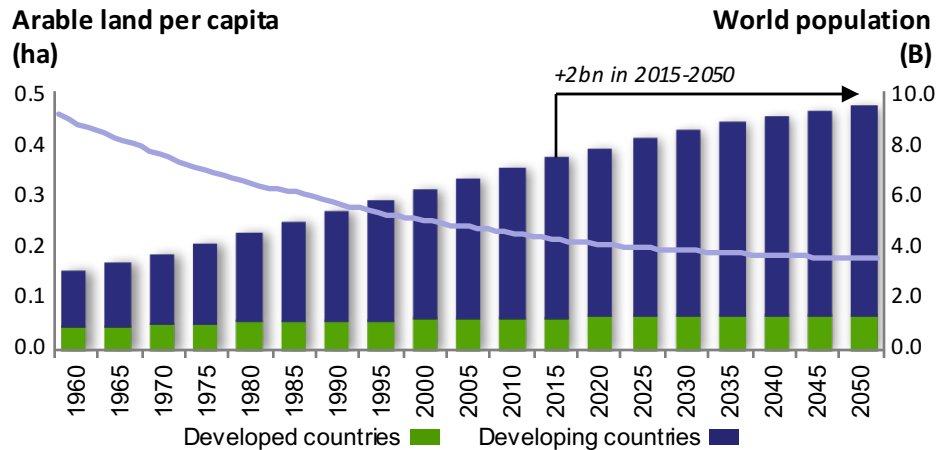
Zhongjin Lu

Vice President, Product Development

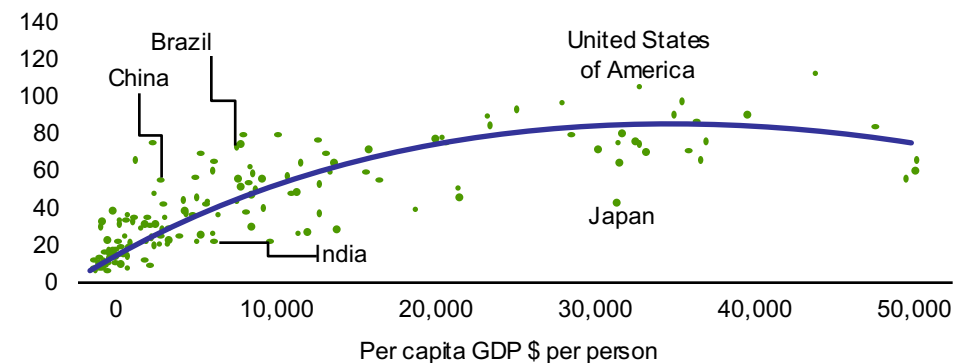
- 30+ years ag-biotech development
- Seaphire International, Monsanto, Jiangsu Academy of Agricultural Sciences

Increasing agricultural yield is critical to meeting future consumption needs

Population growth and increasing per capita income drive need for increased yield

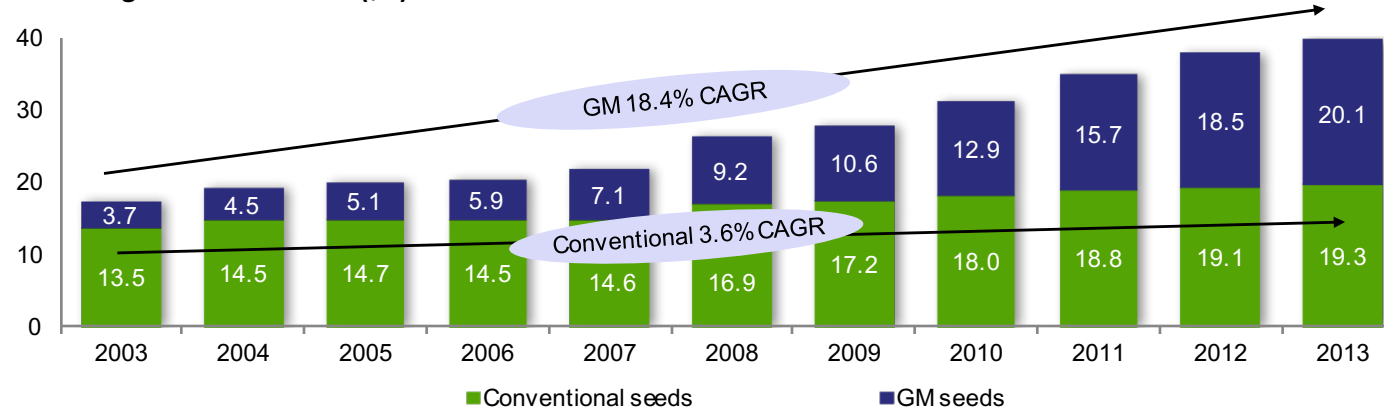


Meat consumption vs. GDP: more income = more calories (Per capita meat consumption, kg/year)



Seeds are the vehicle for delivering improved genetics and have had tremendous growth

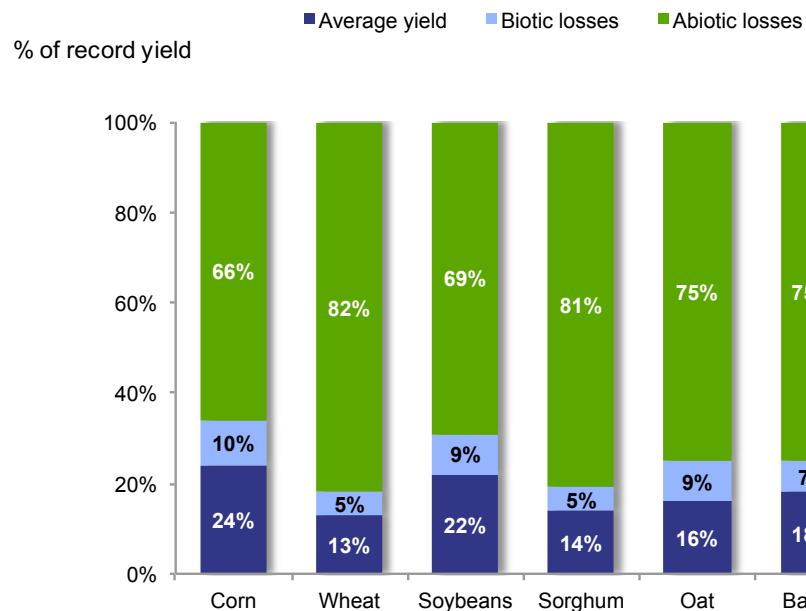
Value of global seed market (\$B)



Source: Food and Agriculture Organization of the United Nations (FAO), Seed Industry Synopsis, Phillips McDougall, June 2014

Arcadia focused on traits that reduce yield losses due to abiotic stress

Abiotic stress accounts for 66-82% of lost yield



Addressing yield losses caused by abiotic stresses represents untapped growth opportunity

Limited number of commercially available abiotic stress solutions on the market:

Agrisure Artesian

genuity
DROUGHTGARD HYBRIDS

Optimum
AQUAmax

Multiple commercially available biotic stress solutions (partial list):

HERCULEX
Insect Protection

Enlist
Soybeans

TwinLink

Optimum
Intrasect
ABOVE

Optimum
Leptra

LIBERTY
LINK

POWERCORE

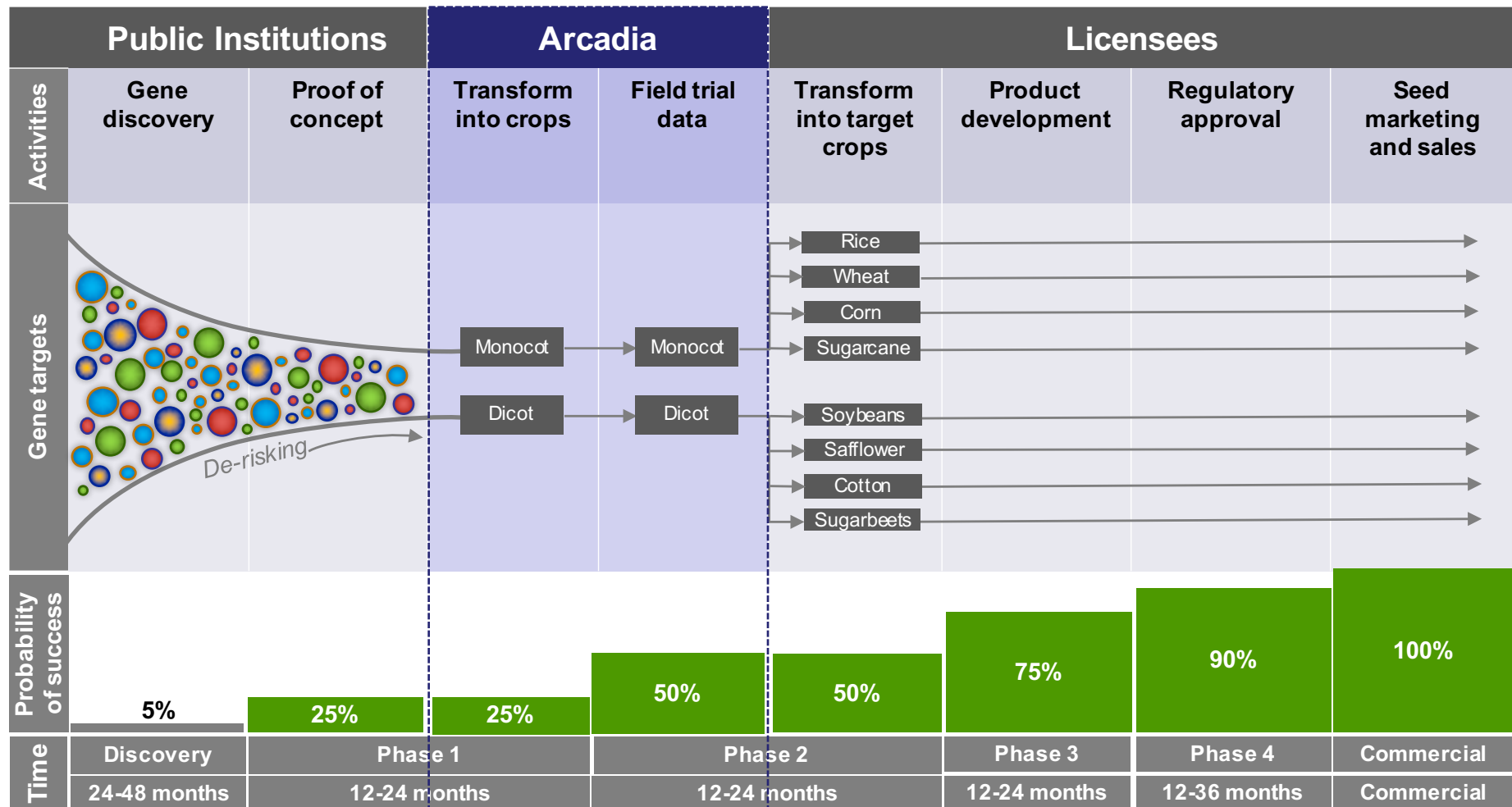
Roundup
Ready
CORN 2

Agrisure Duracade
REFUGE ADVANCED

genuity
SMARTSTAX
ROUNDUP READY 2 YIELD
SOYBEANS

- GM seed market of approximately \$20B based primarily on biotic stress management – highly competitive, multiple products; zero-sum play
- Abiotic stress management has greater value potential, minimal current products, and opportunity for major market expansion

Arcadia's business model reduces risk and leverages third-party capital and capabilities



Source: Company information, Phillips McDougall, Seed Industry June 2014.

Partnered with leaders in target crops, markets and geographies

Soybeans		Owned by ~300 of the largest soybean farmers in South America	- Verdeca JV partner - Commercial partner
		- Leader in crop protection traits - Development and regulatory expertise	Development and commercial partner
		- Leading Brazilian seed company - Leadership position in Matto Grosso	Development and commercial partner
		- Leading S. American seed company - Leadership position in Argentina	Development and commercial partner
Corn		- Leader in crop protection traits - Development and regulatory expertise	Development and commercial partner
		Largest family-owned, retail seed company in the United States	Development and commercial partner
Wheat		- Leading global wheat seed company 4th largest seed company in the world	- Investor; JV partner - Development and commercial partner
Rice, Cotton, Wheat		- Biotech trait leader in S. Asia - Cotton trait leader in India	Development and commercial partner
Nutritional Oils		Leading nutrition and medical foods company	Development and commercial partner
Grain Quality		Leading global grain miller combining assets of ConAgra, Cargill and Horizon milling	Development and commercial partner

- Commercial agreements enable and incentivize sub-licensing and stacking to maximize trait market share
- Arcadia provides traits and services to achieve high value capture
- Licenses generally extend for 20 years from commercial launch, with value shared independent of patent life

Partial list

Portfolio includes multiple late stage products

Phase	D	1	2	3	4	C
Months	24-48	12-24	12-24	12-24	12-36	
Success ¹	5%	25%	50%	75%	90%	

Productivity traits: Designed to increase crop yields and income through improved input efficiency and environmental stress tolerance

		Collaborator(s)						Key Markets
Nitrogen Use Efficiency (NUE)	Wheat	Limagrain, Mahyco, CSIRO, ACPFG						Global
	Rice	Mahyco, AATF						Asia
Water Use Efficiency (WUE) and Stress Tolerance (DT)	Soybean (DT)	Verdeca JV: TMG, GDM Seeds						Americas, Asia
	Wheat (DT)	Bioceres						Global
Salinity Tolerance (ST)	Rice	Mahyco						Asia
Herbicide Tolerance ²	Wheat	Confidential						Global
NUE/WUE/ST Stacks	Rice	AATF						Asia

Product quality traits: Designed to increase the value of harvested products

GLA Oil	Safflower	Abbott							North America, Asia
Resistant Starch ²	Wheat	-							Global
Post Harvest Quality ²	Tomato	Bioseed							Asia, North America

Note: Phase: D=Discovery; 1=Proof of Concept; 2=Greenhouse / Early Field Trials; 3=Additional Field Trials / Product Development; 4=Regulatory / Pre-Commercial; C=Commercialized

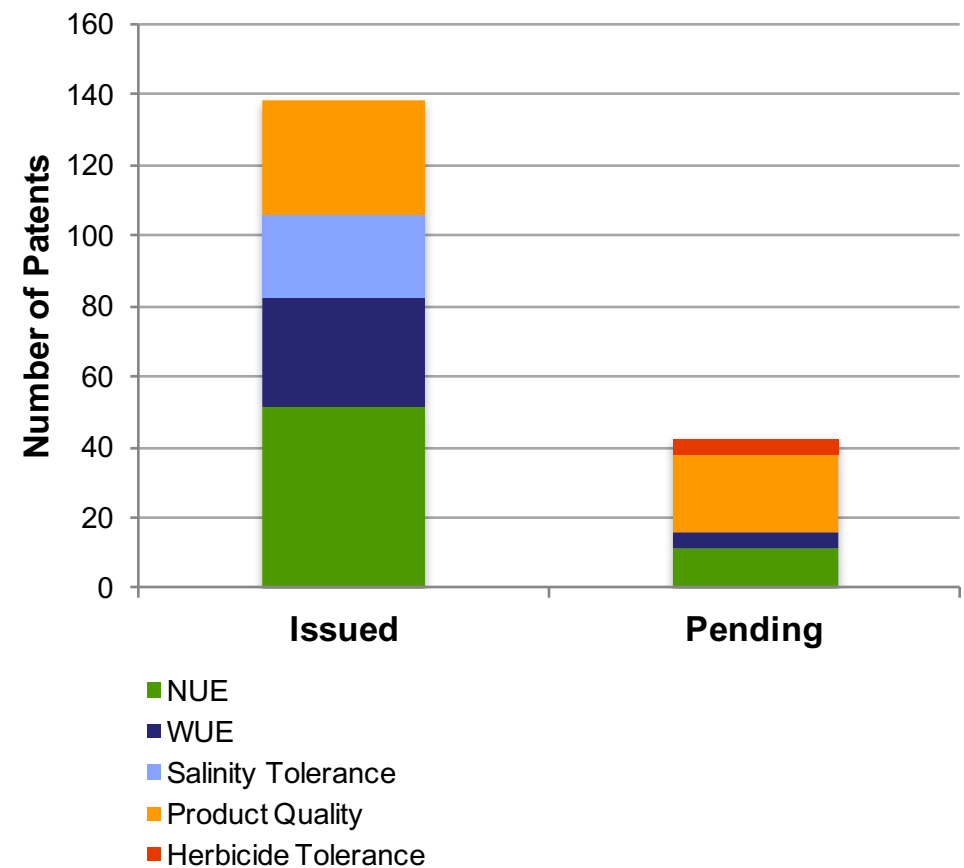
¹ Based on industry standard probabilities

² Non-GM

Robust and growing patent portfolio

- Own or exclusively control 138 issued and 42 pending patent applications worldwide
- Numerous additional intellectual property rights in-licensed exclusively or non-exclusively, but without direct control over the relevant patent portfolios
- Since January 1, 2015
 - 24 new patents have issued
 - 14 new patent applications have been filed

Patent portfolio



Non-GM resistant starch wheat product addresses nutrition and health needs

Resistant Starch Wheat (non-GM)

DEVELOPMENT PHASE / PROBABILITY OF SUCCESS

D	1	2	3	4	C
24-48 mo	12-24 mo	12-24 mo	12-24 mo	12-36 mo	
5%	25%	50%	75%	90%	

Market Potential

- Global
- \$2B market opportunity

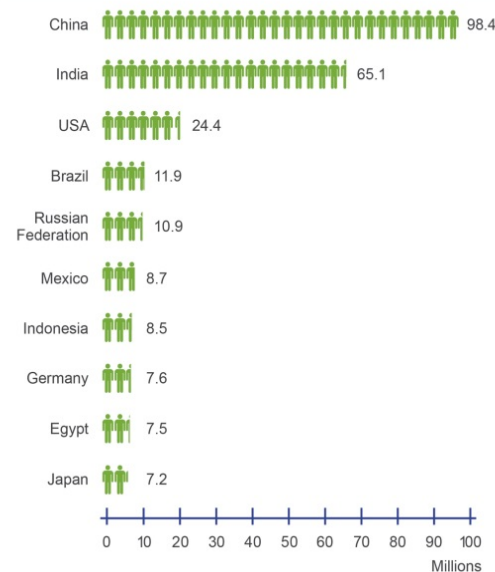
Value Creation

- Based on delivery of greater total dietary fiber in wheat products
- Trait share potential: Medium

Resistant Starch Wheat Highlights

- Resistant starch wheat leads a series of products that provide breakthroughs in wheat nutrition and functionality
- Increases dietary fiber and decreases glycemic index, important in obesity and diabetes mitigation
- Scaling-up production to meet pilot testing to support our partners' processing, formulation and commercial launch plans
- Trait introgression into commercial germplasm is underway
- Converging breeding and partner product development efforts to support commercial launch in the next few years

Top 10 countries with people with diabetes (ages 20-79), 2013



Source: International Diabetes Federation, Company information

HB4 stress tolerant soybeans lead pipeline in regulatory and breeding advancements

Stress Tolerance – Soybeans

DEVELOPMENT PHASE / PROBABILITY OF SUCCESS

D	1	2	3	4	C
24-48 mo	12-24 mo	12-24 mo	12-24 mo	12-36 mo	
5%	25%	50%	75%	90%	

Market Potential

- Global: 272M acres
- 4th largest global crop
- Focus: Americas, Asia

Value Creation

- Each 10% yield increase creates added value of ~\$40 per acre
- ~\$4B globally in annual trait value
- Trait share potential: High

Soybean Highlights

- Joint venture with Bioceres a  company owned by more than 250 of the largest soybean farmers in South America
- ~80% historic trait adoption in soybeans, highest of any crop
- Introgression underway with breeders covering more than 35% of soybean seed sales in South America
- Regulatory approval completed in Argentina, pending in Uruguay
- Regulatory submissions planned for largest single markets:
 - Production: US and Brazil
 - Consumption: China and Europe

Stress Tolerant Soybean Field Trials



Source: FAO, Phillips McDougall, Company information

NUE rice addresses world's most important food crop; driving double-digit yield increases

Nitrogen Use Efficiency – Rice

DEVELOPMENT PHASE / PROBABILITY OF SUCCESS

D	1	2	3	4	C
24-48 mo	12-24 mo	12-24 mo	12-24 mo	12-36 mo	
5%	25%	50%	75%		

Market Potential

- Global: 400M acres
- Most valuable global crop
- 3rd largest global crop by acres
- Focus: Asia

Value Creation

- Each 10% yield increase creates added value of ~\$63 per acre
- ~\$10B in annual trait value
- Trait share potential: High

Rice Highlights

- Partnered with major seed company and trait leader in India 
- Completed US FDA Early Food Safety Evaluation
- Multiple field tests demonstrate double-digit yield increases in major rice types
 - 30% average yield increase based on 4 years of field trials in multiple environments at CIAT in Colombia
 - 19% average yield increase based on 2 years of field trials in multiple environments
 - Introgression underway in Indica and Japonica rice varieties covering most of rice production worldwide



Source: FAO, CIAT, AATF, Phillips McDougall, Company information

Corn strategy leverages partner expertise and assets to advance yield and stress pipeline

Yield and Stress Traits – Corn

DEVELOPMENT PHASE / PROBABILITY OF SUCCESS					
D	1	2	3	4	C
24-48 mo	12-24 mo	12-24 mo	12-24 mo	12-36 mo	
5%	25%	50%			

Market Potential

- Global: 433M acres
- Most valuable trait crop
- 53% of market value in the US
- Focus: Global

Value Creation

- Each 10% yield increase creates ~\$62 of added value per acre
- ~\$11B in annual trait value
- Trait share potential: High

Corn Highlights



- Leading global commercial development partner
- Proven crop protection products and pipeline complements Arcadia yield and stress platform
- Strong track record of broad trait licensing and collaboration
- Collaboration resulted in two product candidates in Phase 2 of development



- Largest family-owned retail corn seed company in the US
- Leadership position in key market segments
- Transformation, testing and product development capabilities



Source: FAO, Phillips McDougall, Company information

Arcadia is well positioned for future growth

- ④ Assembled a leading team of science, product development, regulatory and business professionals
- ④ Trait development focused on reducing abiotic stress
- ④ Unique business model leverages partnerships with seed companies and processors to bring products to market
- ④ Numerous licenses in place with global partners in major crops
- ④ Robust pipeline of GM and non-GM traits
- ④ Multiple products in advanced stages of development



Arcadia
B I O S C I E N C E S

Recent Financials

Key financial results



	Second Quarter			First Half		
	2016	2015	% Favorable/ (Unfavorable)	2016	2015	% Favorable/ (Unfavorable)
Total revenues	721	1,430	(50%)	1,573	2,245	(30%)
Cost of product revenues	35	106	67%	182	162	(12%)
R&D expense	2,216	2,086	(6%)	4,418	3,918	(13%)
SG&A expense	2,759	2,785	1%	6,195	5,423	(14%)
Loss from operations	(4,289)	(3,547)	(21%)	(9,222)	(7,258)	(27%)
Net loss	(4,551)	(3,677)	(24%)	(9,741)	(9,480)	(3%)
Net loss attributable to common stockholders	(4,551)	(4,556)	0%	(9,741)	(12,251)	20%
Net loss per share attributable to common stockholders	(0.10)	(0.19)	N/A	(0.22)	(0.94)	N/A
Cash used in operating activities				(8,847)	(6,582)	(34%)
Basic and diluted shares outstanding (weighted average)	44,308,245	23,775,368		44,274,508	12,985,332	

\$ in thousands, except share and per share data
Unaudited

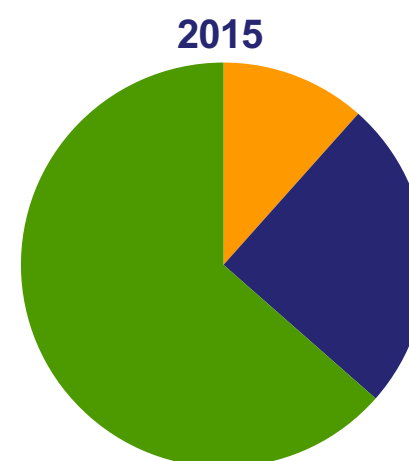
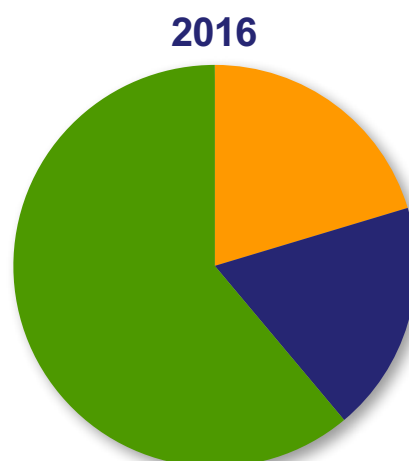
Revenue

	Second Quarter			First Half		
	2016	2015	% Favorable/ (Unfavorable)	2016	2015	% Favorable/ (Unfavorable)
Product revenue	65	179	(64%)	320	260	23%
License revenue	140	401	(65%)	292	559	(48%)
Contract research and government grants	516	850	(39%)	961	1,426	(33%)
Total revenues	721	1,430	(50%)	1,573	2,245	(30%)

\$ in thousands; Unaudited

First half revenue mix comparison:

- Product revenue
- License revenue
- Contract research and government grants



Operating expenses

	Second Quarter			First Half		
	2016	2015	% Favorable/ (Unfavorable)	2016	2015	% Favorable/ (Unfavorable)
Cost of product revenues	35	106	67%	182	162	(12%)
R&D expense	2,216	2,086	(6%)	4,418	3,918	(13%)
SG&A expense	2,759	2,785	1%	6,195	5,423	(14%)
Total operating expenses	5,010	4,977	(1%)	10,795	9,503	(14%)

\$ in thousands; Unaudited

First half expense mix comparison:

- Cost of product revenues
- R&D expense
- SG&A expense

