Investor Handout

October 2015

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.

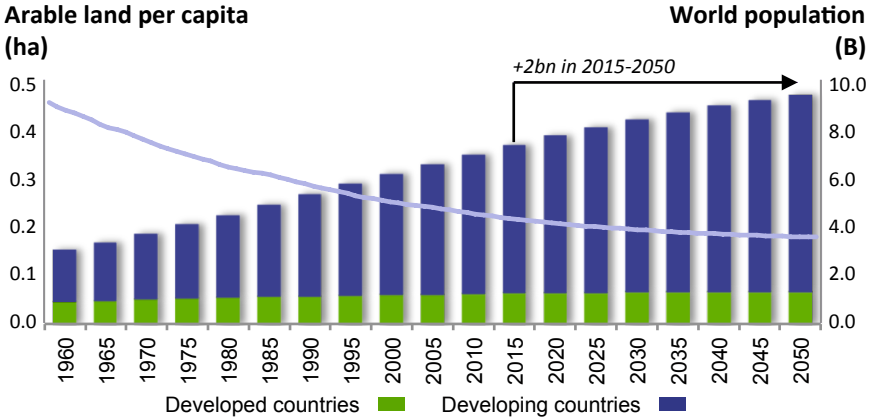
Further information on these and other factors that could affect the company's financial results are included in filings it makes with the Securities and Exchange Commission from time to time, including the section entitled "Risk Factors" in the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 and other filings. 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 is as of the date hereof, and Arcadia Biosciences, Inc. disclaims any obligation to update this information.

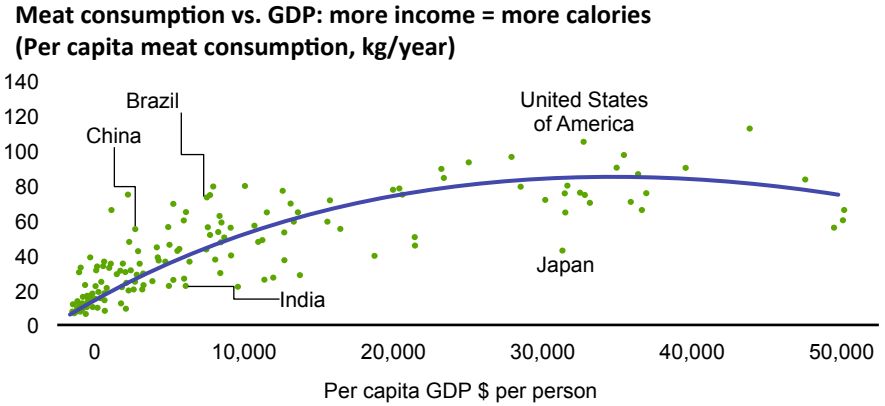
Arcadia is a leading agricultural biotechnology trait company

Portfolio of late-stage yield traits creates a compelling case for new investment in agriculture

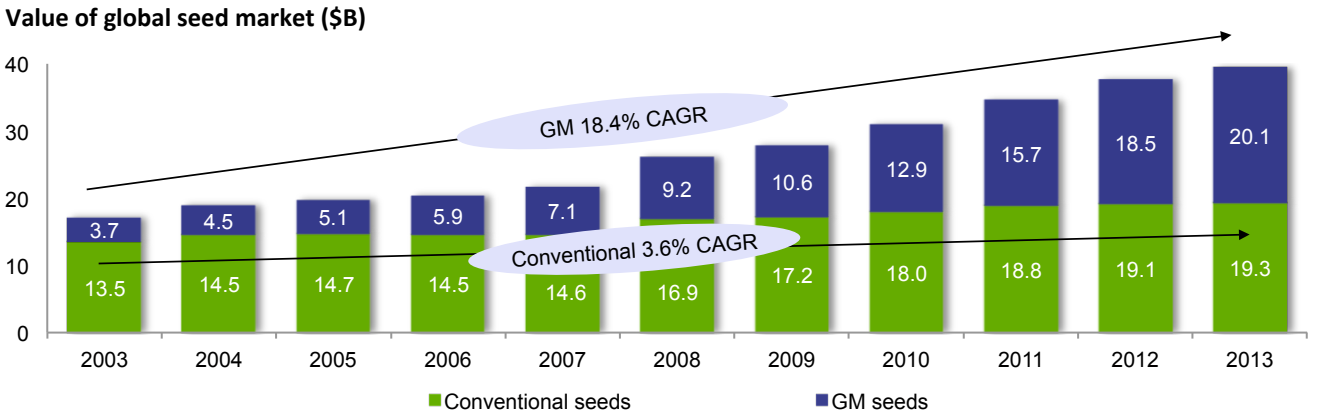
Agricultural yield is always critical, and traits create significant value

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





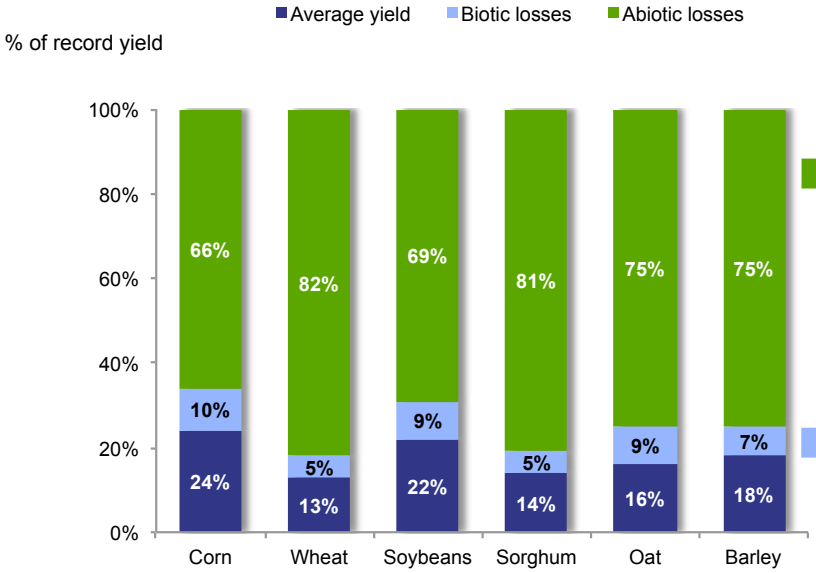
Seeds are the vehicle for delivering improved genetics and have had tremendous growth



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

Significant growth potential exists from next wave of abiotic stress traits

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:

AgrisureArtesian · genuity DROUGHTGARD HYBRIDS · optimum AQUAmax

Multiple commercially available biotic stress solutions (partial list):

HERCULEX Insect Protection · Enlist Soybeans · TwinLink · optimum Intrasect · optimum Leptra · AgrisureDuracade · SmartStax · LIBERTY LINK · POWERCORE · Roundup Ready CORN 2 · REFUGE ADVANCED · genuity 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

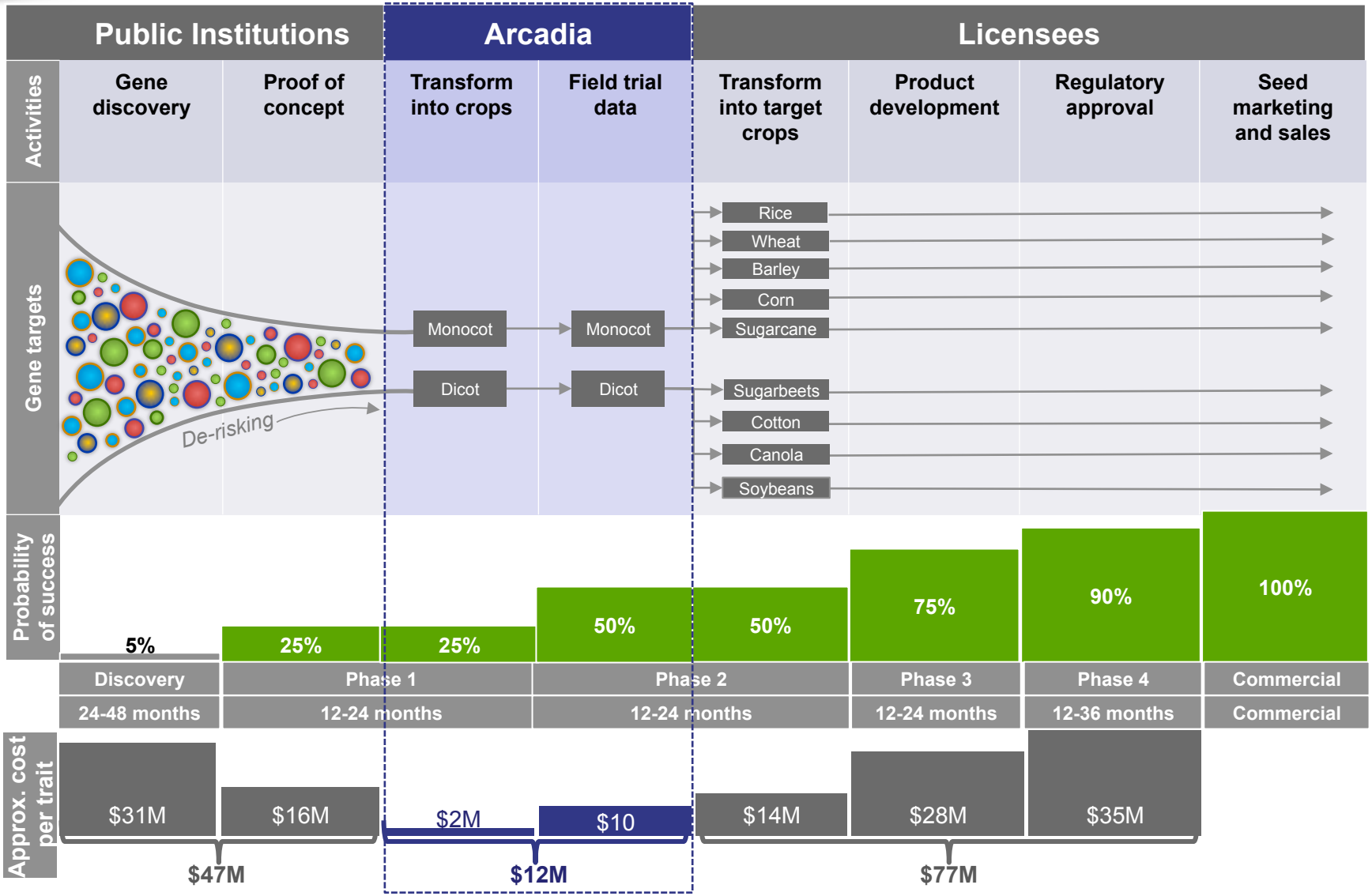
Source: Biochemistry and Molecular Biology of Plants, Buchanan, Gruissem, Jones, American Society of Plant Physiologists, 2000.

Clear path to sustained financial growth with 50 products in development

PROGRAM	Crop	Collaborator(s)	Phase D	1	2	3	4	5	Key Markets
PRODUCTIVITY TRAITS									
Nitrogen Use Efficiency (NUE)	Wheat	Limagrain, Mahyco, CSIRO, ACPFG							Global
	Rice	Mahyco, AATF							Asia
	Soybean	Verdeca							Americas, Asia
	Corn	-							Global
	Cotton	Mahyco							Americas, Asia
	Canola	-							N. America, Asia
	Sugarcane	US Sugar, SASRI, Mahyco							S. America, Asia
	Barley	-							N. America, Australia
	Turf	Scotts							N. America
	Tree Crops	Arborgen, Futuragene							Brazil, N. America
	Vegetables	Mahyco							Asia
Water Use Efficiency (WUE) Drought Tolerance (DT)									
	Wheat (WUE)	Limagrain							Global
	Wheat (DT)	Bioceres							Global
	Rice (WUE)	Mahyco							Asia
	Soybean (DT)	Verdeca							Americas, Asia
	Corn (WUE)	Genective							Global
	Cotton (WUE)	Mahyco							Americas, Asia
	Canola (WUE)	-							N. America, Asia
	Sugarcane (WUE)	US Sugar, SASRI, Mahyco							S. America, Asia
	Sugar Beets (WUE)	SES Vanderhave							N. America
	Tree Crops (WUE)	Arborgen, Futuragene							Brazil, N. America
	Vegetables (WUE)	Mahyco							Asia
Salinity Tolerance (ST)	Wheat	Mahyco							Global
	Rice	Mahyco							Asia
	Cotton	Mahyco							Americas, Asia
	Canola	Mahyco							N. America, Asia
	Sugarcane	Mahyco							S. America, Asia
	Vegetables	Mahyco							Asia
Herbicide Tolerance*	Wheat	Confidential							Global
Heat Tolerance	Wheat	USAID, CIMMYT							Global
Trait Stacks									
NUE/WUE/ST	Rice	AATF							Asia
NUE/DT	Wheat	Bioceres							Global
NUE/WUE	Wheat	Limagrain							Global
NUE/WUE	Canola	-							N. America, Asia
PRODUCT QUALITY TRAITS									
GLA Oil	Safflower	Abbott							N. America, Asia
Resistant Starch*	Wheat	-							Global
Post Harvest Quality*	Tomato	Bioseed							Asia, N. America
ARA Oil	Safflower	Abbott, DuPont Pioneer							N. America, Asia
Grain Quality*	Wheat	Ardent Mills							Global
Low Gluten*	Wheat	-							Global

Phase: D=Discovery; 1=Proof of Concept; 2=Greenhouse / Early Field Trials; 3=Additional Field Trials / Product Development; 4=Regulatory / Pre-Commercial; 5=Commercialized
* Non GM

Open architecture maximizes technology access and global market penetration



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

Partnered with leaders in target crops, markets and geographies

Wheat	Limagrain	• Leading global wheat seed breeder and marketer • Fourth largest global seed company overall	• Investor • JV partner • Commercial partner since 2009
Rice and Cotton	mahyco	• Biotech trait leader in Southeast Asia • Cotton trait leader in India	• Commercial partner since 2007
Soybeans	BIOCERES	• Owned by 200+ of largest soybean farmers in South America	• JV partner • Commercial partner since 2012
	DOW	• Leading developer of crop protection traits • Product development and regulatory expertise	• Development and channel partner starting April 2015
Nutritional Oils	Abbott	• Leading nutrition and medical foods company	• Commercial partner since 2003
Grain Quality	Ardent Mills	• Leading global grain miller	• Commercial partner since 2012

Partial list

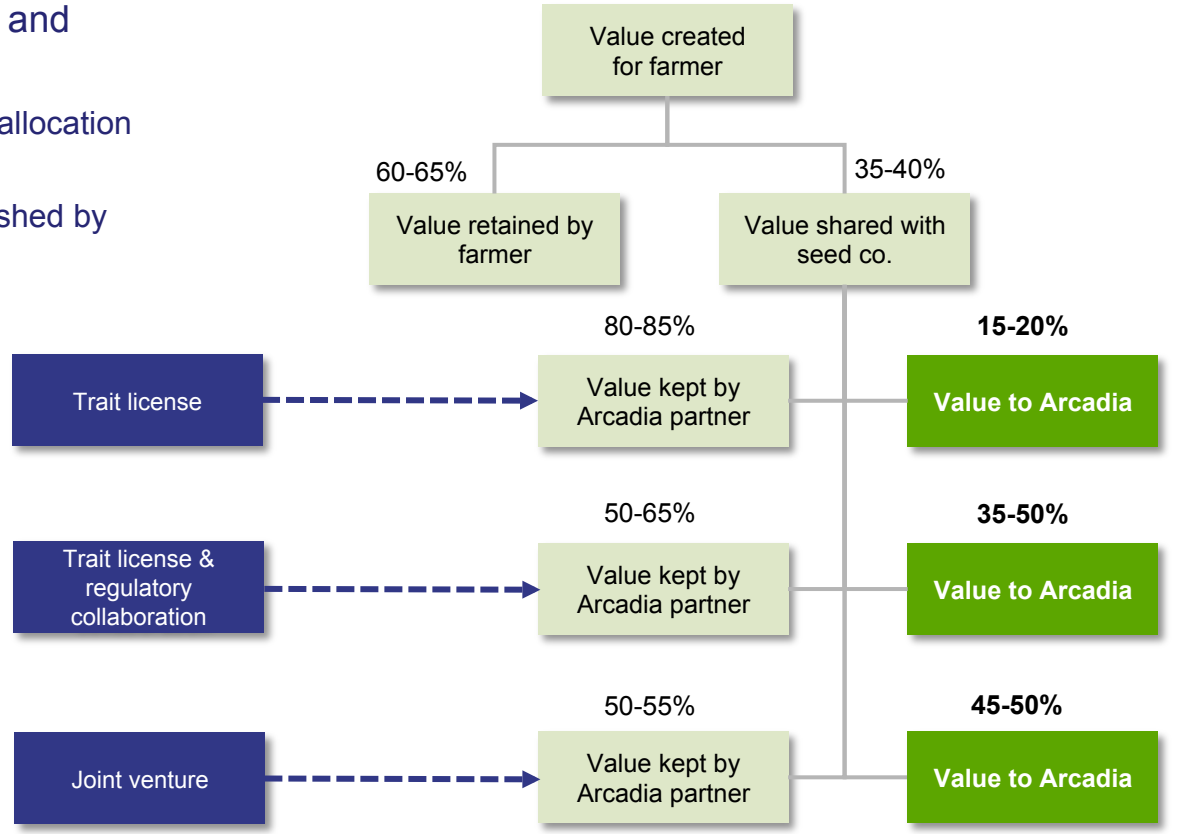
- Commercial agreements enable and incentivize sub-licensing and stacking to maximize trait market share
- Arcadia provides traits and services to achieve high value capture
- Licenses generally extend for 20 years from commercial launch, with value shared independent of patent life

Traits and capabilities lead to high value-capture

- Arcadia has licensed key technologies to partners for most major crops and countries
  - Farmer – seed company value allocation based on partner experience
  - Arcadia value allocation established by contract

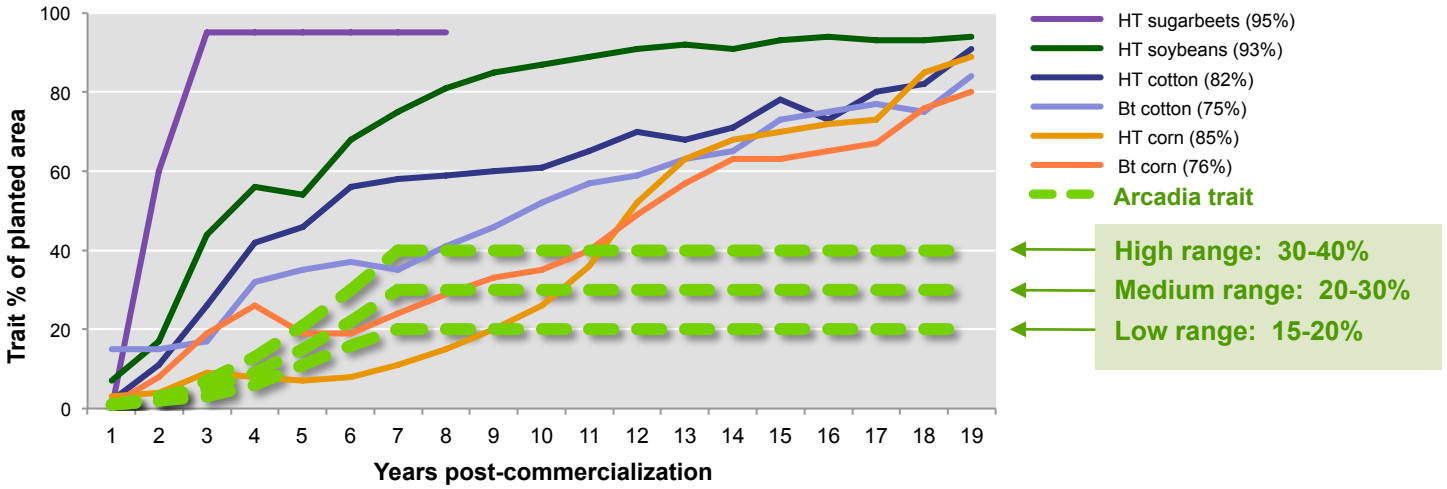
- Three primary license types:

Value-sharing



Growth assumptions conservatively modeled

Trait market adoption rate and share



- Growth assumptions reflect:
  - Rigorous input from commercial partners on crop and market-specific adoption rates
  - Open stacking and sub-licensing provisions to increase trait market penetration
  - Industry standards used for pipeline phases, timing and probabilities
  - Conservative trait adoption rates and peak market share compared with industry norms and partner input
  - 10-year historic averages for commodity prices
  - No change in existing planted acreage

Source: US Department of Agriculture; Company information; Commercial partner information

Late-stage portfolio with 13 products in Phase 3 of development or later

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

Program	Crop	Collaborator(s)	Key markets
Nitrogen Use Efficiency (NUE)	Wheat	Limagrain, Mahyco, CSIRO, ACPFG	Global
	Rice	Mahyco, AATF	Asia
	Canola	-	North America, Asia
	Barley	-	North America, Australia
Water Use Efficiency (WUE) and Drought Tolerance (DT)	Soybean (DT)	Verdeca	Americas, Asia
	Wheat (DT)	Bioceres	Global
Salinity Tolerance (ST)	Rice	Mahyco	Asia
Herbicide Tolerance[2]	Wheat	Confidential	Global
Trait Stacks			
NUE/WUE/ST	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
ARA Oil	Safflower	Abbott, DuPont Pioneer	North America, Asia

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

Stress Tolerant soybeans have received the first regulatory approvals

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: 110M Ha
- 4th largest global crop
- Focus: North America, South America

Value Creation

- Each 10% yield increase creates ~$10B added value globally
- Trait share potential: High

Market Channel

- US-based 50/50 joint venture between Arcadia and Bioceres

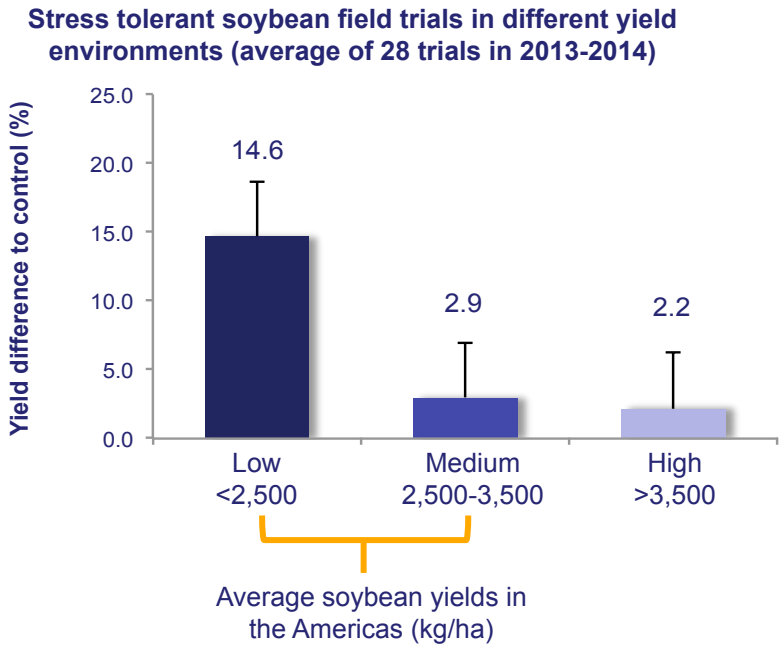
Verdeca

- Stress tolerant soybeans received first regulatory approval in Argentina in April 2015
- US FDA Early Food Safety Evaluation completed for HB4 stress tolerance trait
- Companies representing ~35% of South America soybean sales have licensed the trait

Data Notes

- Multiple years of field data show yield improvements across different environments
- Yield gains most pronounced in low-yielding environments, where yield gains reached 14-15%

Stress Tolerant Soybean Field Trials



Source: FAO, Company information

NUE rice demonstrates average yield increase of 30%

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: 162M Ha
- 3rd largest global crop
- Focus: Asia

Value Creation

- Each 10% yield increase creates ~$30B added value globally
- Trait share potential: High

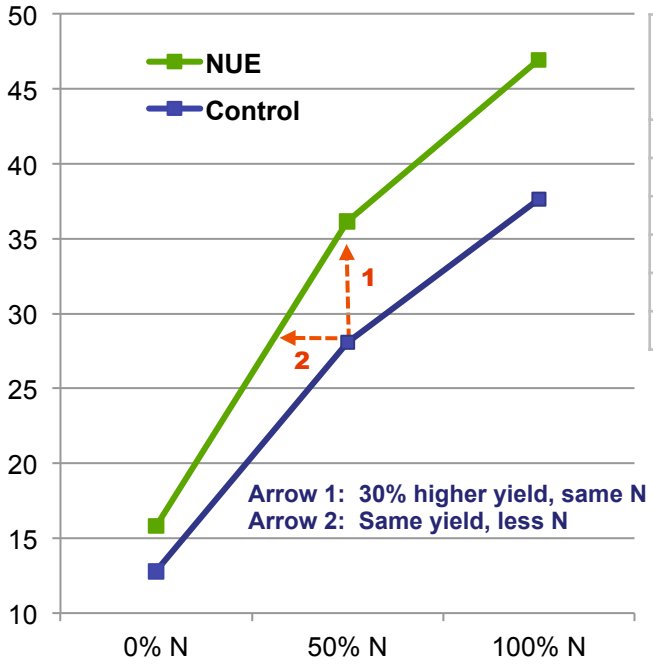
Market Channel

- Major seed company in India; partially owned by Monsanto
- Key partner since 2007
- Introduced the first GM cotton in India and achieved >90% trait market share
- NUE trait has completed US FDA Early Food Safety Evaluation

Data Notes

- Independent field testing demonstrated average yield increase of 30% based on 4 years and multiple environments
- Rice lines incorporating the NUE trait have shown double-digit percentage increases in key plant performance and yield metrics

NUE Rice Field Trials



Production Environment	N Rate (% normal)	NUE Rice Mean (% yield increase)
Lowland	0%	25%
	50%	26%
	100%	25%
Upland	17%	43%
	50%	32%
	Mean	**30%**

Based on 4 years of field trials by the International Center for Tropical Agriculture (CIAT)

Source: FAO, CIAT, Company information

Non-GM Herbicide Tolerant wheat taps into largest existing trait market

Herbicide Tolerance – 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%		

Market Potential

- Global: 217M Ha
- Largest global crop

Value Creation

- Based on combination of herbicide cost reduction and yield increase
- Trait share potential: High

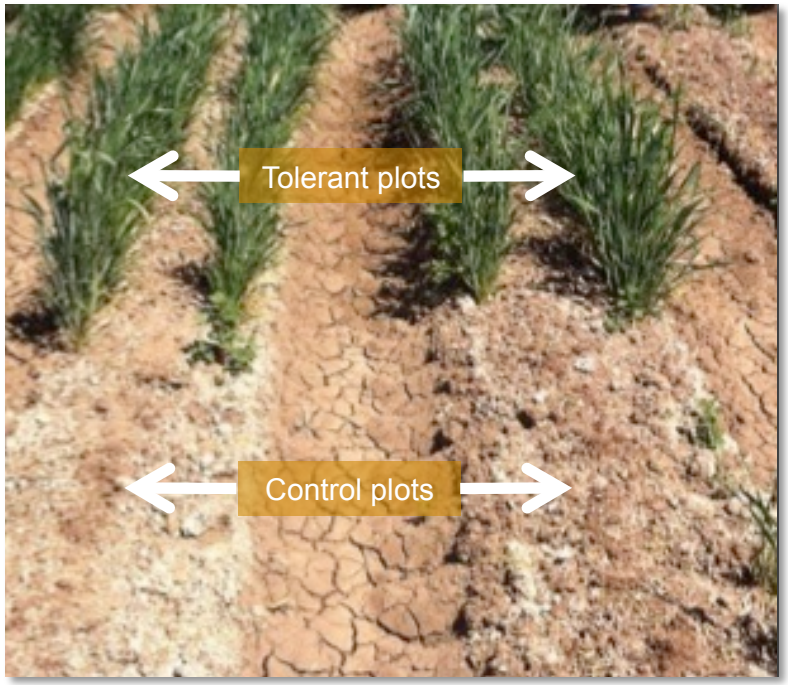
Market Channel

- Key collaborator and funding partner is major seed company, who has non-exclusive, geographically limited rights
- Broad non-exclusive licenses in additional geographies planned

Data Notes

- High-throughput screening of proprietary genetic diversity library used to discover and stack genes
- Optimized genetic stack in greenhouse and field tests
- Testing to date demonstrates clear tolerance to glyphosate herbicide in multiple lines

Herbicide Tolerant Wheat Field Trials



Source: FAO, Company information

Non-GM Resistant Starch wheat improves health qualities of wheat

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

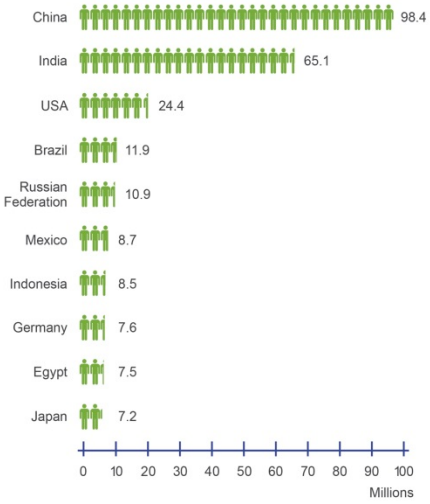
Market Channel

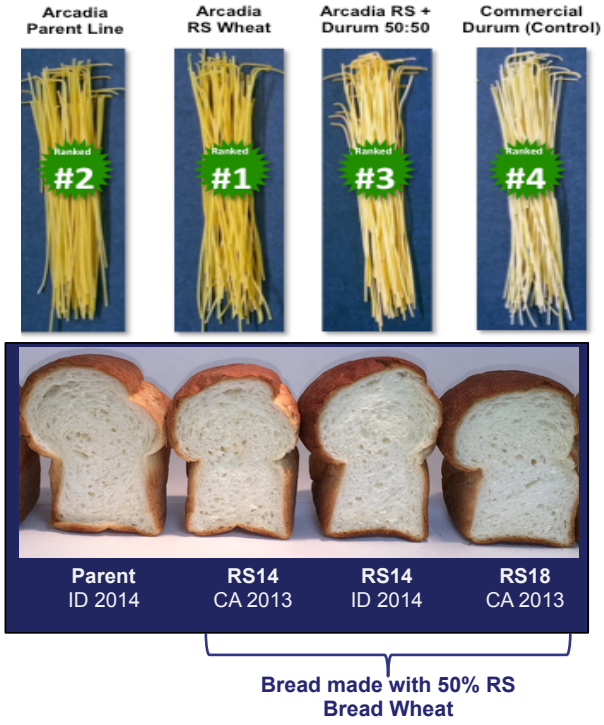
- Multiple major milling and consumer product companies (in development)

Data Notes

- Resistant starch increases dietary fiber, benefitting health and decreasing glycemic index; important in diabetes mitigation
- Pasta made from Resistant Starch Wheat achieved highest consumer preference rankings in tests carried out by a major consumer products company
- Bread made with 50% Resistant Starch Wheat achieved multiples higher total dietary fiber (TDF*) than bread made from standard wheat

Resistant Starch Wheat





Source: International Diabetes Foundation, MarketsandMarkets, Company information

Regulatory approvals, commercial partnerships and patents continue to advance pipeline

Regulatory approvals

Ministerio de Agricultura Ganadería y Pesca

Regulatory approval of stress tolerant soybeans by CONABIA in Argentina

FDA

US FDA Early Food Safety Evaluation for NUE trait in all crops

FDA

US FDA approval of GLA safflower oilseed meal in animal feed

FDA

US FDA Early Food Safety Evaluation for HB4 trait in all crops

Commercial partnerships

TMG Tropical Melhoramento & Genética

Verdeca collaboration with TMG to advance breeding of stress tolerant soybeans in South America

DOW Dow AgroSciences

Verdeca collaboration with Dow AgroSciences to advance yield traits in soybeans in South America

PHYTOLA

Phytola research partnership to develop soybean varieties with increased oil content

TMG Tropical Melhoramento & Genética

Verdeca collaboration with TMG to develop non-GM agronomic and quality traits in soybeans

Patent advancements

UNITED STATES PATENT AND TRADEMARK OFFICE uspto

US Patent issued for Arcadia's non-GM Resistant Starch Wheat

European Patent Office

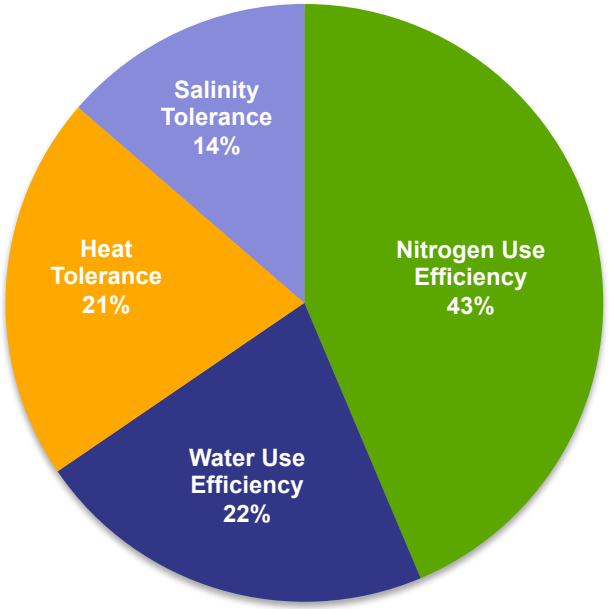
European patent issued for Arcadia's Water Use Efficiency trait technology

Contractual milestones provide near-term revenue and visibility on progress

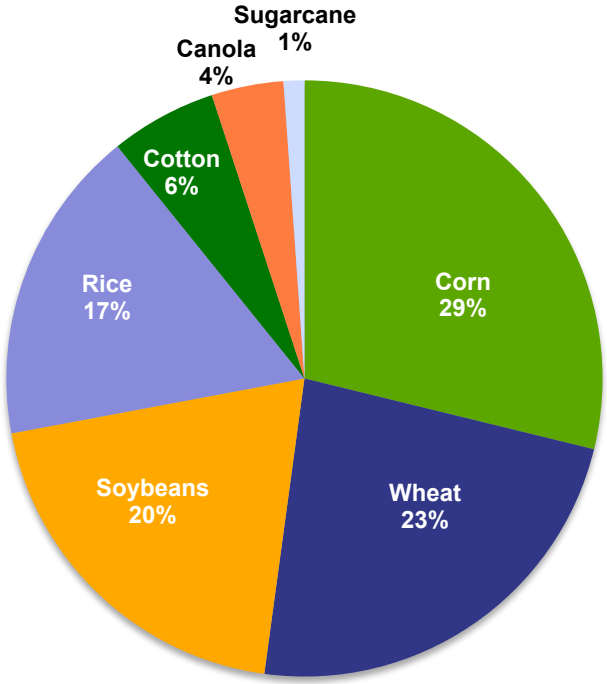
Top four traits represent significant revenue opportunity in major global crops

Annual Trait Revenue Opportunity Approximately $9B-$14B[1]

By Trait



By Crop



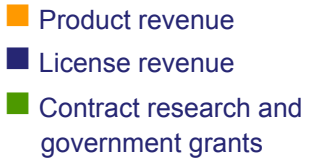
[1] Phillips McDougall Analysis, 2015

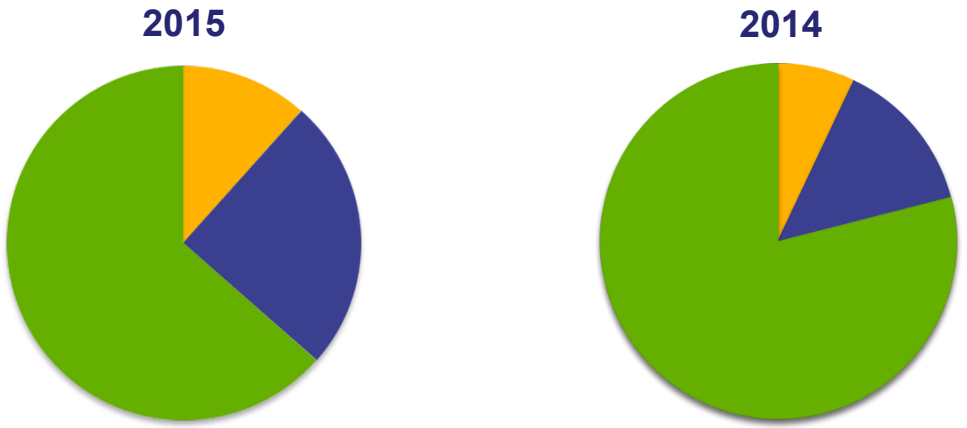
Revenue

	Second Quarter			First Half		
	2015	2014	% Increase/ (Decrease)	2015	2014	% Increase/ (Decrease)
Product revenue	179	65	175%	260	199	31%
License revenue	401	195	106%	559	371	51%
Contract research and governmental grants	850	1,045	(19%)	1,426	2,112	(32%)
Total revenues	1,430	1,305	10%	2,245	2,682	(16%)

$K; Unaudited

First-half revenue mix comparison:





Operating expenses

	Second Quarter			First Half		
	2015	2014	% Increase/ (Decrease)	2015	2014	% Increase/ (Decrease)
Cost of product revenues	106	46	130%	162	137	18%
R&D expense	2,086	2,275	(8%)	3,918	4,258	(8%)
SG&A expense	2,785	3,983	(30%)	5,423	5,867	(8%)
Total operating expenses	4,977	6,304	(21%)	9,503	10,262	(7%)

$K; Unaudited

First-half expense mix comparison: