

Discovering.
Delivering. 
Yielding.

Introduction to Monsanto

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Notes

Certain statements contained in this presentation are “forward-looking statements,” such as statements concerning the company’s anticipated financial results, current and future product performance, regulatory approvals, business and financial plans and other non-historical facts. These statements are based on current expectations and currently available information. However, since these statements are based on factors that involve risks and uncertainties, the company’s actual performance and results may differ materially from those described or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, among others: continued competition in seeds, traits and agricultural chemicals; the company’s exposure to various contingencies, including those related to intellectual property protection, regulatory compliance and the speed with which approvals are received, and public acceptance of biotechnology products; the success of the company’s research and development activities; the outcomes of major lawsuits; developments related to foreign currencies and economies; successful operation of recent acquisitions; fluctuations in commodity prices; compliance with regulations affecting our manufacturing; the accuracy of the company’s estimates related to distribution inventory levels; the company’s ability to fund its short-term financing needs and to obtain payment for the products that it sells; the effect of weather conditions, natural disasters and accidents on the agriculture business or the company’s facilities; and other risks and factors detailed in the company’s most recent reports on Forms 10-Q and 10-K. Undue reliance should not be placed on these forward-looking statements, which are current only as of the date of this presentation. The company disclaims any current intention or obligation to update any forward-looking statements or any of the factors that may affect actual results.

Monsanto Imagine and the Vine Design, Channel, Channel Bio, D&PL, Deltapine, DEKALB, DEKALB and Winged Ear Design, When Performance Counts, Asgrow, Asgrow and Design, Acceleron, Acceleron and Design, Apex, Biotech Yield Endorsement, BYE, Bollgard, Bollgard II, Bollgard and Design, Bollgard II and Design, Corn States Triangle Design, Cotton States, Cotton States and Design, Discovering, Delivering, Yielding., EarthMap Solutions and Design, Genuity, Genuity and Design and Genuity Icons, Growing Yield Sustainably, Our Science Your Success and Design, Processor Preferred, Produce More, Conserve More, Roundup, Roundup PowerMax, Roundup Pro, Roundup ProMax, Roundup Ready, Roundup Ready 2 Yield, Roundup Powerful Performance and Design, Roundup Ready Rate and Design, Roundup Rewards, Roundup Technology, Roundup WeatherMax, SmartStax, SmartStax and Design, Vistive, Vistive and Design, YieldGard, YieldGard Rootworm and Design, YieldGard Corn Borer and Design, YieldGard Plus and Design, YieldGard VT, YieldGard VT and Design, YieldGard VT Triple, YieldGard VT Rootworm/RR2, YieldGard VT Triple PRO, VT Triple PRO, Vectran, Seminis, Seminis Vegetable Seeds and Design and De Ruiter are trademarks and service marks owned by Monsanto Company and its wholly owned subsidiaries. All other trademarks are the property of their respective owners.

RR = Roundup Ready; YGCB = YieldGard Corn Borer; RR2 = Roundup Ready Corn 2; YGVT = YieldGard VT; YGRW = YieldGard Rootworm; RR2Y = Roundup Ready 2 Yield; RRF = Roundup Ready Flex

Monsanto is 100% Focused on Agriculture

Monsanto Company is a leading global provider of technology-based tools and agricultural products that improve farm productivity and food quality.

Our Mission

We work to deliver agricultural products and solutions to:

- *Meet the world's growing food needs*
- *Conserve natural resources*
- *Protect the environment*

“We succeed when farmers succeed.”

-Hugh Grant, Monsanto CEO



Monsanto Company at a Glance

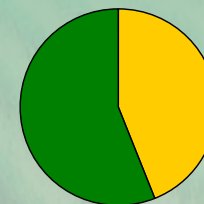
A LEADER IN THE FIELD OF AGRICULTURAL TECHNOLOGY

MONSANTO'S VITAL STATISTICS

- A leader in seeds, crop protection and biotechnology
- Headquartered in St. Louis
- Employs more than 21,000 people worldwide
- More than 500 locations worldwide in 5 primary regions – Europe/Africa, Asia Pacific, India, Latin America and North America

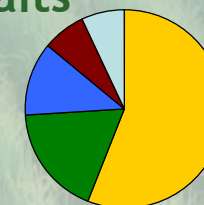
Business Segments

- Seeds and Genomics
- Agricultural Productivity



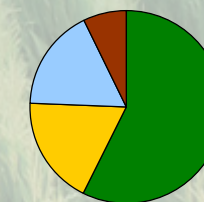
Sales by Seeds and Traits

- Soybean
- Corn
- Vegetable & Fruit
- Cotton
- All other Crops



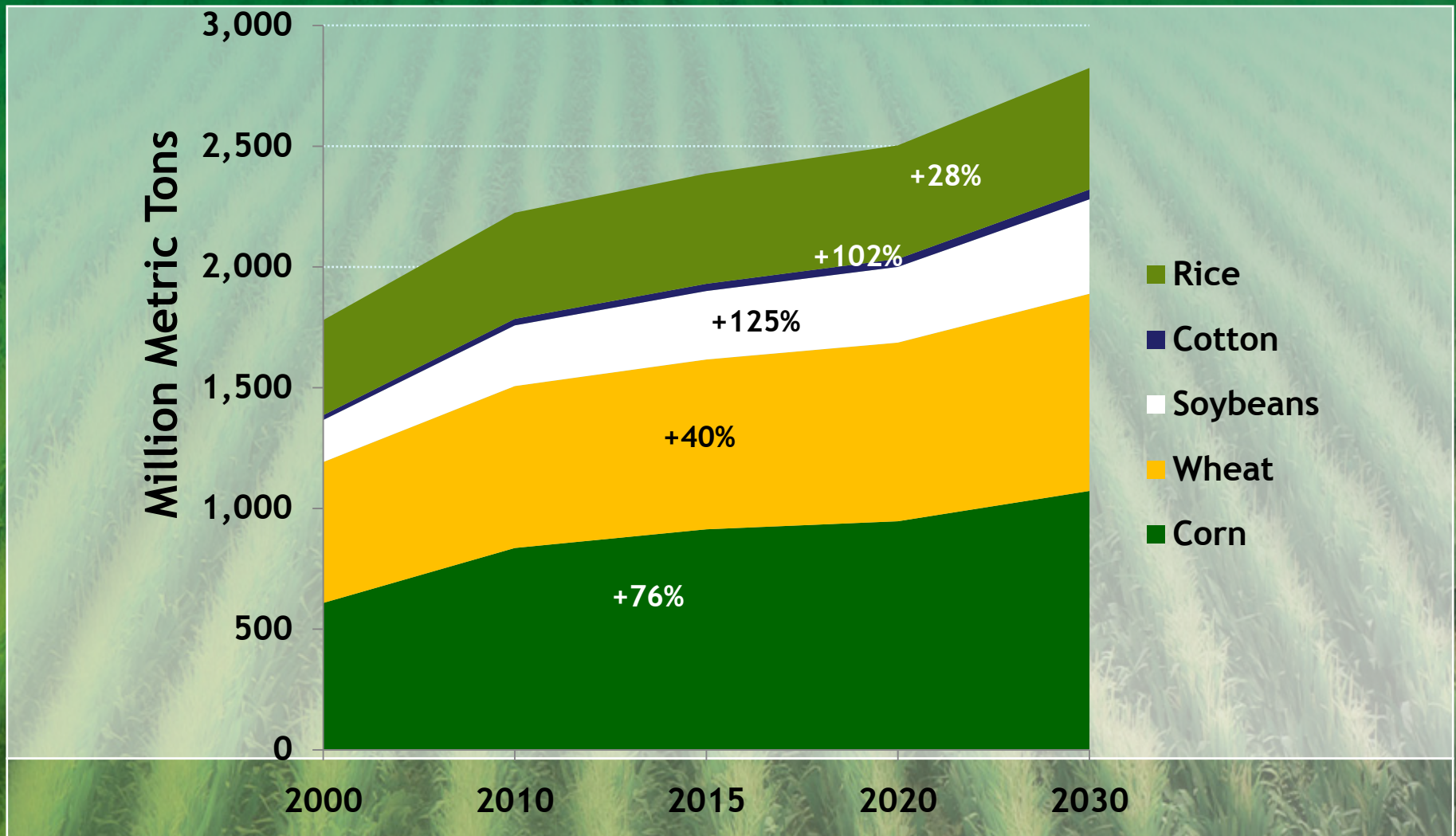
Sales by Geography

- NA
- LA
- E-A
- A-P



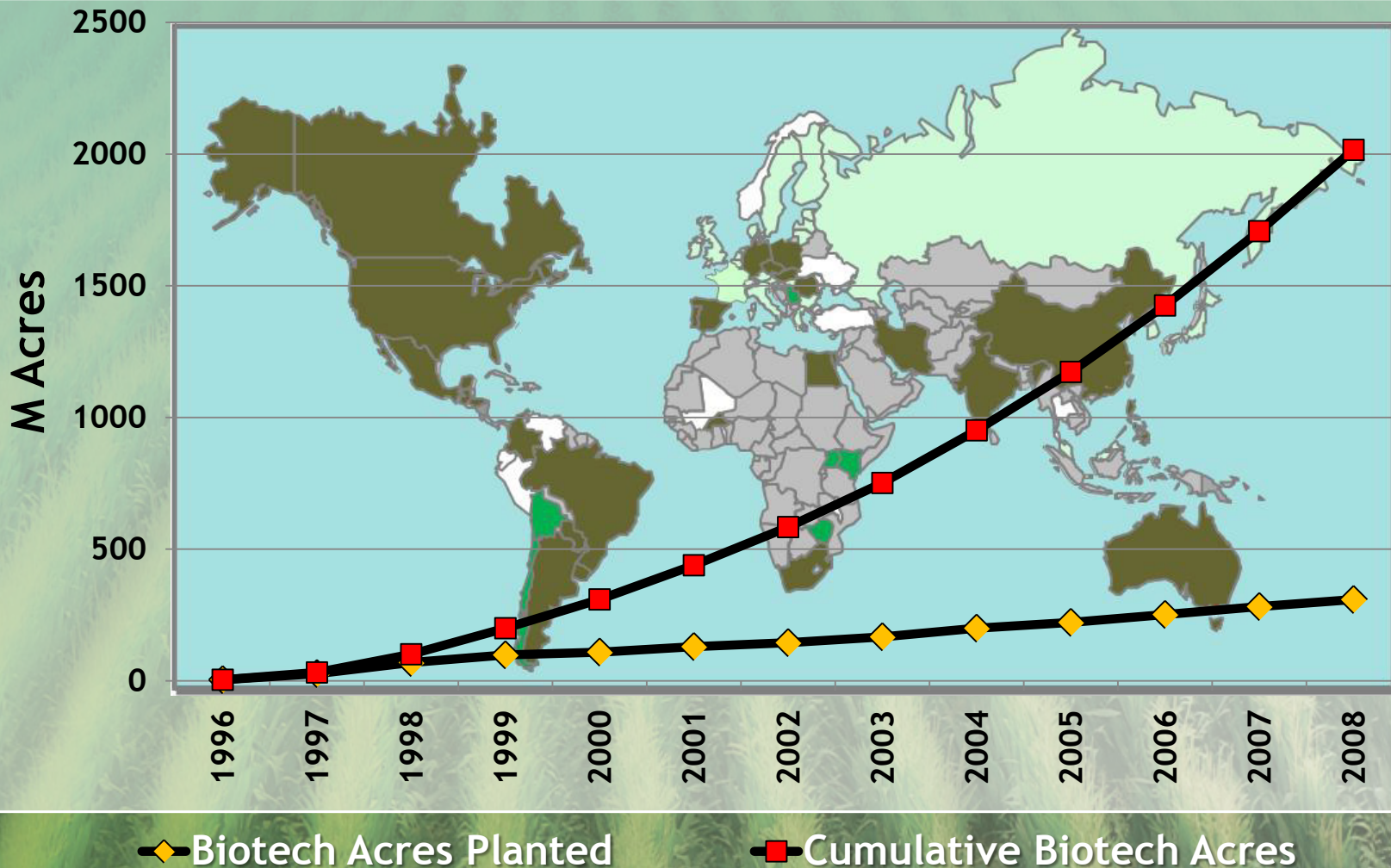
Dedicated To Bringing The Next Generation Of Ag Products To The Market

Global Demand For Crops Projected to Grow Dramatically as Population/Income Continues to Rise



Cumulative Global Biotech Crop Acreage Surpassed Two Billion Acres in 2008

PROJECTED TO EXCEED 3 B CUMULATIVE ACRES IN 2011 AND 4B CUMULATIVE ACRES BY 2015



Agriculture is at the intersection of huge global challenges

...increasing need for sustainable, and efficient food and feed production systems for a growing population

Increased Demand for Grain

UN experts ...double food production to feed 9.3 billion people by 2050

Agriculture

Increase Demands on Natural Resources

Climate Change



Sustainable Yield Initiative

By 2030, Monsanto commits to help farmers produce more and conserve more by:

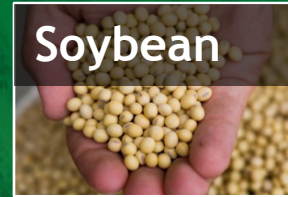
- Seeds that help farmers double yields (from a year 2000 basis) for corn, soybeans and cotton, with a \$10 million grant pledged to improve wheat and rice yields.
- Seeds that help conserving resources that use one-third fewer key resources per unit of output to grow crops while working to lessen habitat loss and improve water quality.
- Helping improve the lives of all farmers, including an additional five million people in resource-poor farm families by 2020.

What Does it Mean to Double Yield in the U.S. by 2030?



Corn

2000 Baseline: 137 bu/ac
2030 Goal: 300 bu/ac



Soybean

2000 Baseline: 37 bu/ac
2030 Goal: 80 bu/ac



Cotton

2000 Baseline: 632 lbs/ac
2030 Goal: 1,300 lbs/ac

How Are We Going to Reach These Goals?



Breeding

Creates new, more robust varieties that perform better in the field.



Biotech

Adds special beneficial genes to the plant.



Agronomics

Agronomic practice improvements make acres more productive.

Unlike the initial 'simple' agronomic trait products, Yield is a complex biological trait bringing new challenges to Biotech & Breeding-driven product development

Insect Tolerance



BT protein

Yield

Water

Utilization

Soil factors

Root morphology

Stalk strength

Planting density

Sink

Source

Ear development



Disease

Nitrogen

Temperature

Yield Improvement is not just the result of Biotech & Breeding advancements

For example: Agronomic Practice Improvements are Expected to Contribute to a ~10 bu/ac Corn Yield Gain in the U.S.

AGRONOMIC PRACTICE	BENEFIT
 <p>Fungicides</p>	Using Headline® fungicide in an acre of corn can bring a 10 to 13.5 Bu/A benefit to the grower.
 <p>Plant Populations</p>	More strategic planting densities can increase bushels per acre, even with today's traits and genetics.
 <p>Precision Agriculture</p>	More precise use of every acre - from GPS-guided tractors to GIS to yield mapping - allows growers to maximize use of inputs and land to get the best return on investment.
 <p>Seed Treatments</p>	New treatments to be commercialized with the launch of Genuity™ SmartStax™ should add an incremental yield benefit.

IMPROVEMENTS IN AG PRACTICES HAVE ALREADY CONTRIBUTED ABOUT 40% TO YIELD GAINS

Headline is a registered trademark of BASF Corporation

Monsanto Technology: What We Do



Reduce science to practice in order to provide useful products to our farmer customers to make them more productive

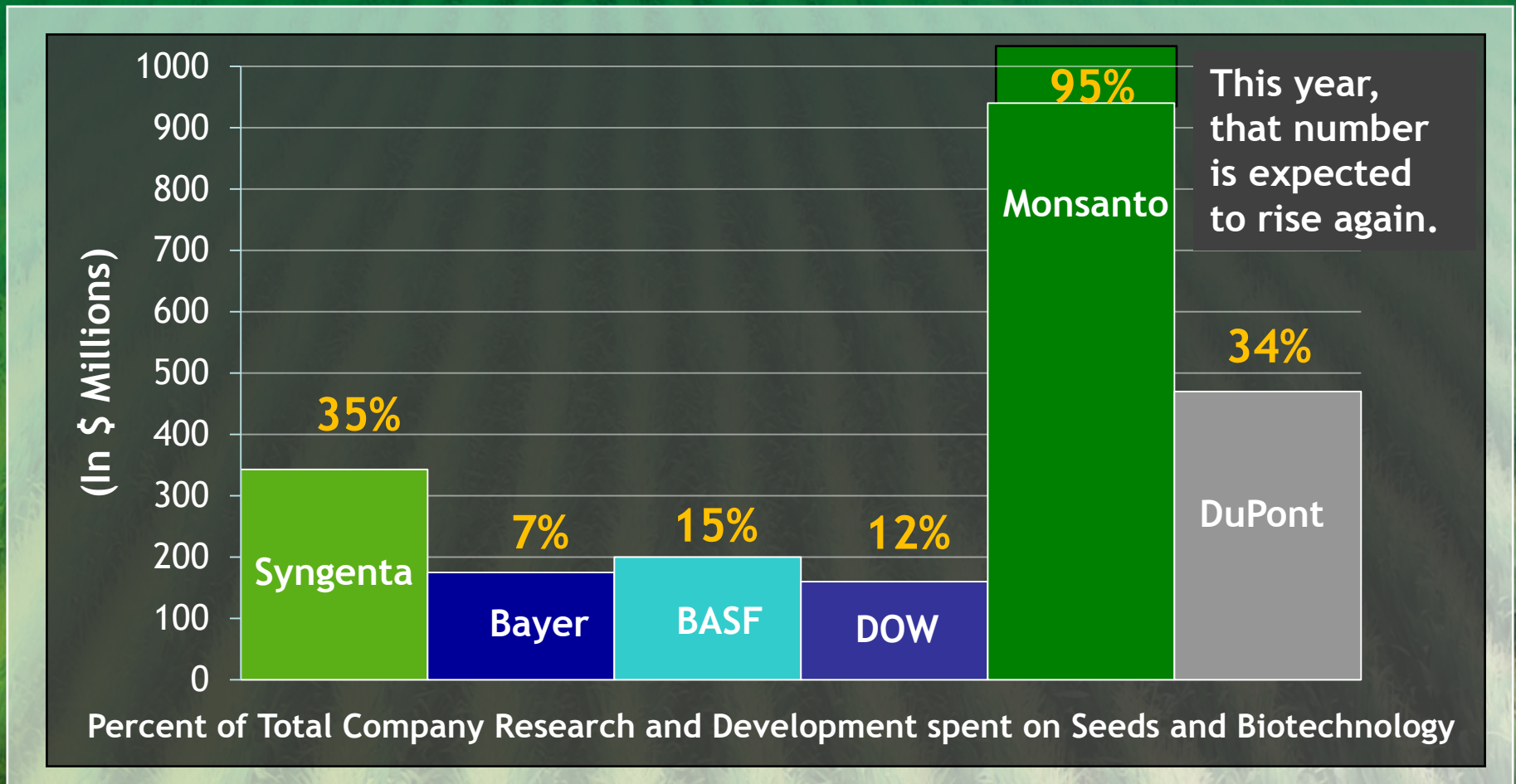
Monsanto is a genomics-driven seeds and traits business

Sustained investment in genomics technology

- State of the art facilities for high-throughput genotyping
 - Capacity to analyze tens of millions of samples per year
- Recent investment in Pacific Biosciences and their potentially disruptive third-generation sequencing platform
- Access to Collectis meganuclease technology for site-directed gene integration and other use

Monsanto Spends More on Seed and Biotech R&D Than Any Other Company

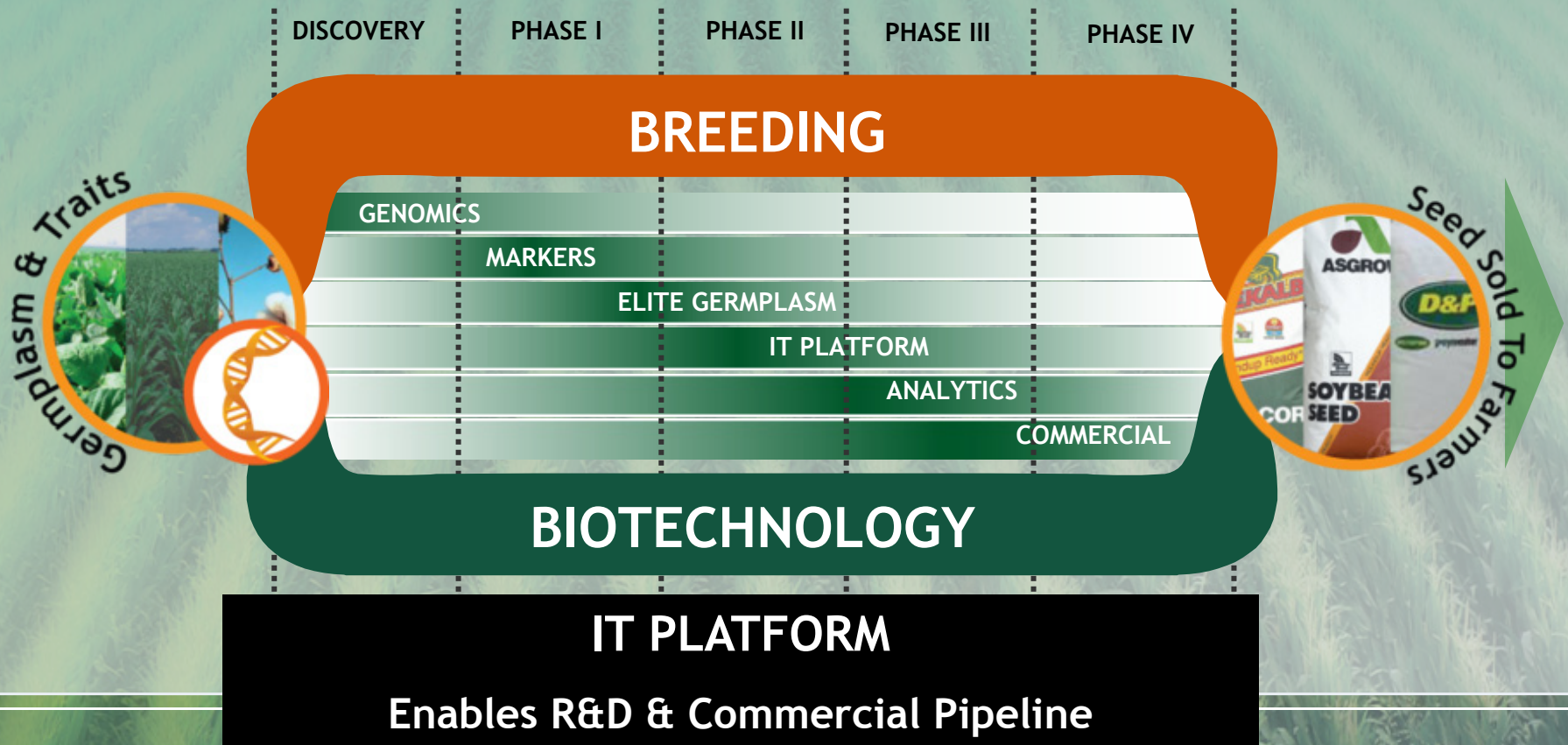
COMPANY RESEARCH-AND-DEVELOPMENT EXPENDITURE IN SEEDS & BIOTECHNOLOGY - FY2008



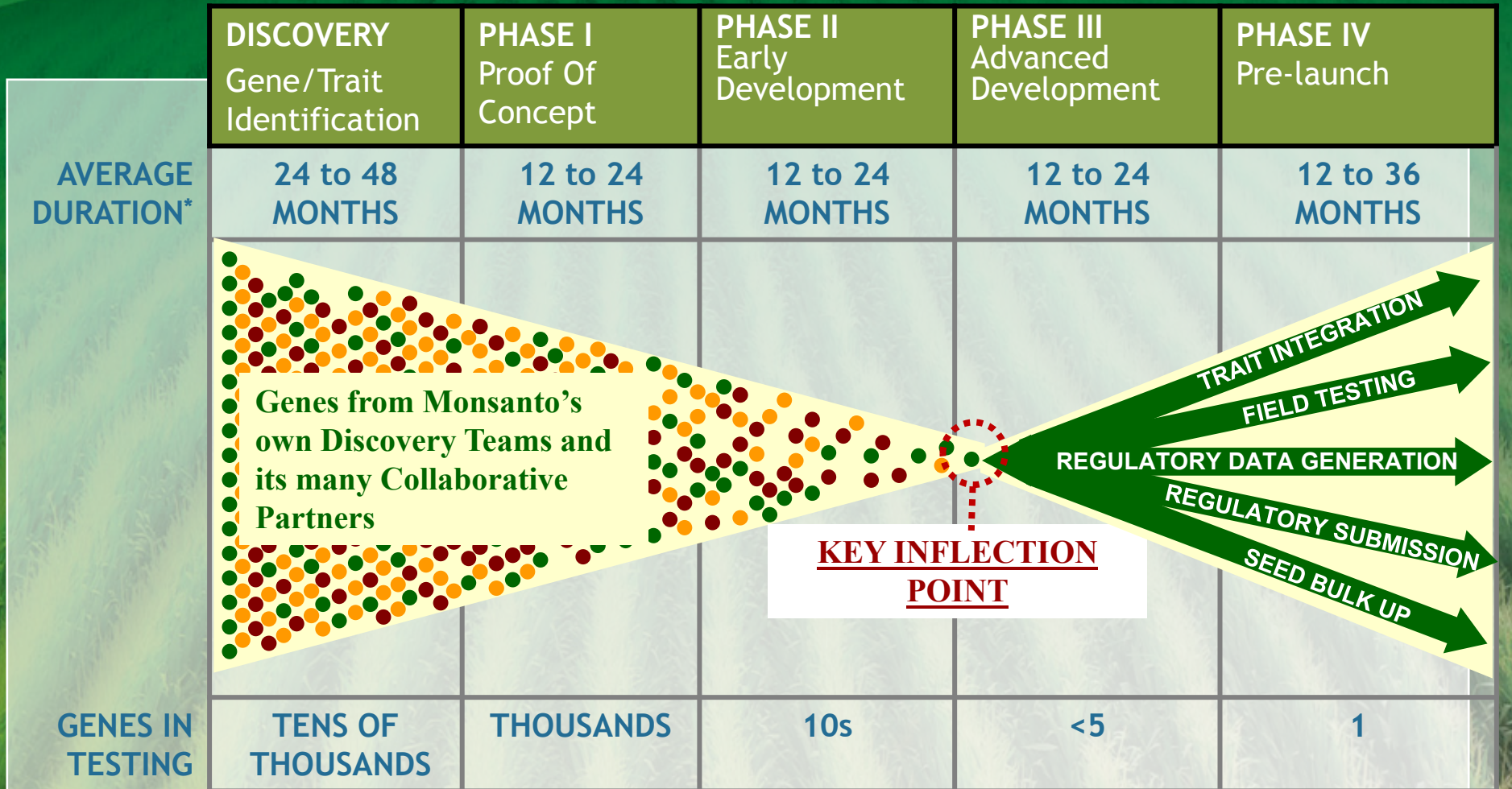
Source: Monsanto, Phillips McDougall and SEC Filings

Breeding and Biotech Provide Parallel & Complementary R&D Paths to Commercial Products

DEVELOPMENT PATHWAYS



Monsanto has an Efficient and Well-Developed Transgenic Product Pipeline Process

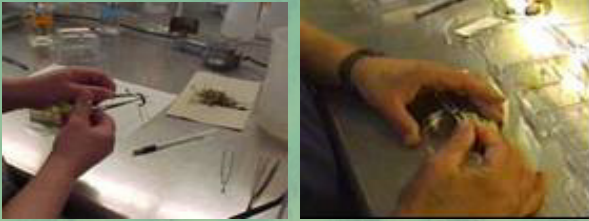


*Time estimates are based on our experience; they can overlap. Total development time for any particular product may be shorter or longer than the time estimated here.

Our Transgenic Pipeline Supports the Need for Rapid Development of Multiple New Traits

Biotechnology

Molecular expertise organized in self-sufficient project teams



Genomics

High-throughput process automation and supporting data systems



Modular “Pipeline” Infrastructure for Corn, Soy, Canola, Cotton & Wheat Product Development

Gene nomination & Prioritization

Transformation & R1 Seed Production

Seed Bulk-up & Hybrid Production

GH Screens & Field testing

Data Analysis & Lead Advancement

✓ Supports both Proof of Concept & Early Development

✓ Quality Control & Continuous Improvement

Discovery

Phase 1
Proof of Concept

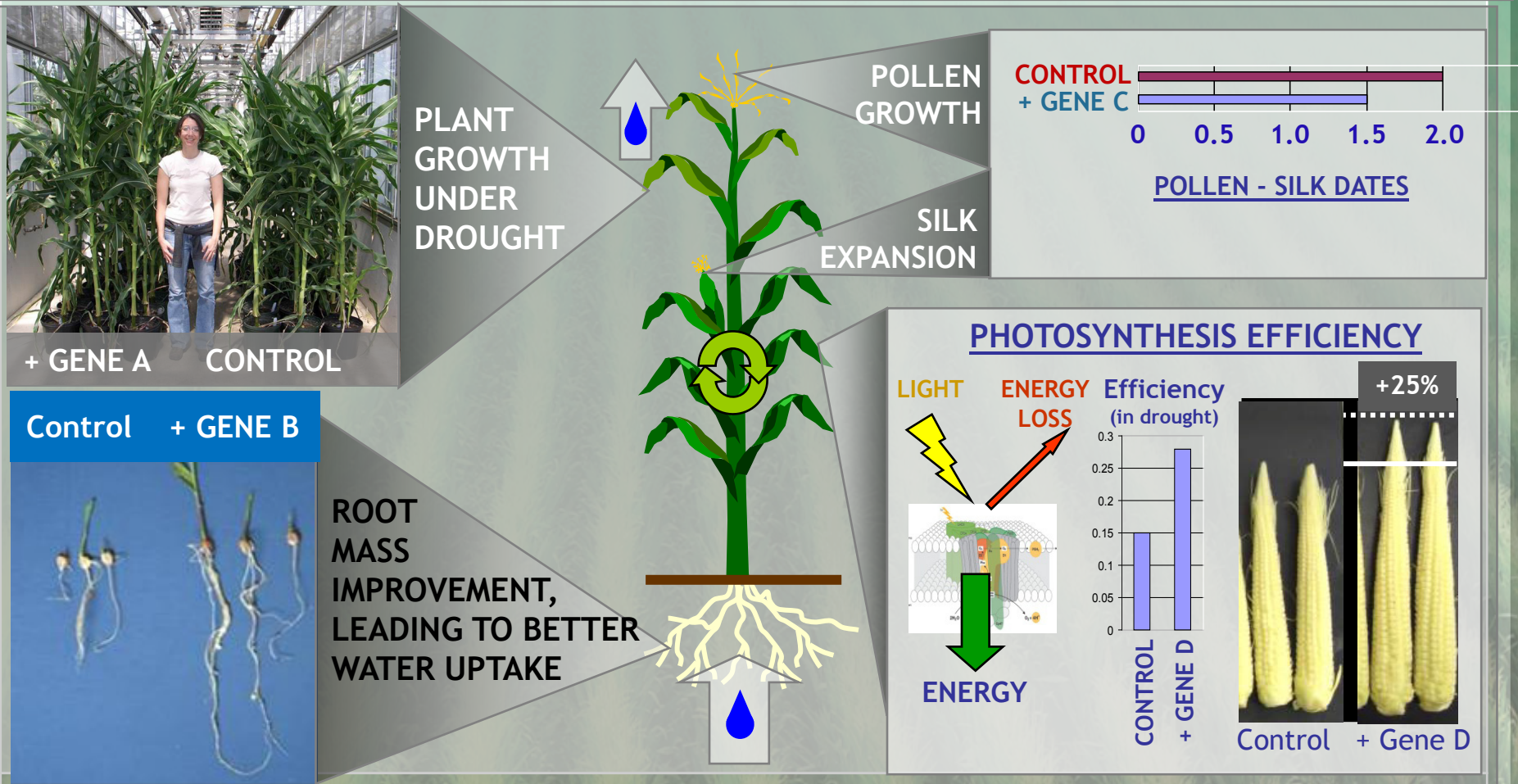
Phase 2
Early Development

Phase 3
Adv. Development

Phase 4
Pre-Launch

Example-- Leads identified in all major pathways associated with plant water utilization

Early Gene Leads Work To Improve the Ways in Which Plants Use Water



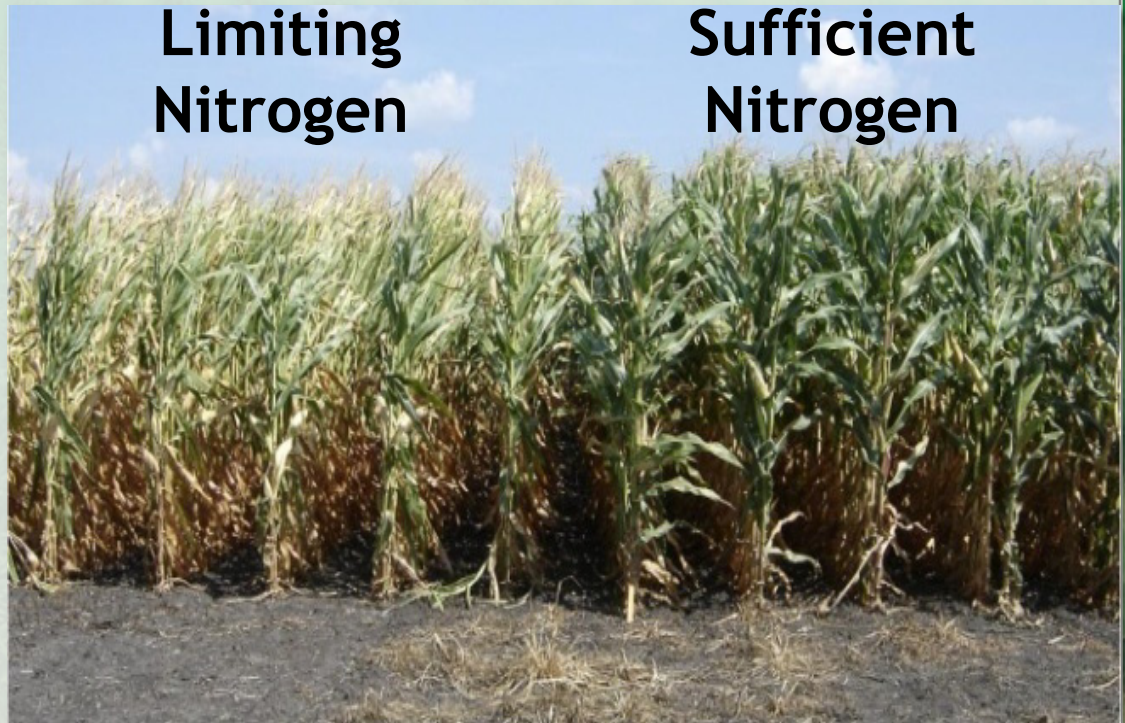
BUILDING A FAMILY OF GENES CONVEYING DROUGHT TOLERANCE

Example: Nitrogen Utilization Corn Targets

Ways to Use Nitrogen More Efficiently

PROVIDES FARMER BENEFITS AND ENVIRONMENTAL BENEFITS

- Can potentially boost yield under normal nitrogen conditions or stabilize it in low nitrogen environments
- Under limited nitrogen conditions, lead trait has demonstrated yield advantages over multiple years
- Can reduce agriculture's overall impact on the environment



Discovery

Phase 1

Proof of Concept

Phase 2

Early Development

Phase 3






Adv. Development

Phase 4

Pre-Launch

Launch

Exciting Future Corn Products in Our R&D Pipeline

 <p>GENUITY™ SMARTSTAX™</p> <p>APPROVED</p>	<ul style="list-style-type: none">▪ Combines eight genes with multiple modes of action to provide the industry's best-performing trait package of herbicide-tolerance and insect-protection traits
 <p>DROUGHT-TOLERANT CORN</p>	<ul style="list-style-type: none">• Enhances yield stability when water is limited; targeted to the dryland region of the Western Great Plains
 <p>HIGHER-YIELDING CORN</p>	<ul style="list-style-type: none">• First biotech corn product dedicated solely to yield; targeted to provide 6 to 10 percent yield gains
 <p>DROUGHT II CORN</p>	<ul style="list-style-type: none">▪ Aimed at boosting yield stability for broad-acre applications and reducing water input required in water-limited environments
 <p>NITROGEN USE EFFICIENCY</p>	<ul style="list-style-type: none">• Can potentially boost yield under normal nitrogen conditions or stabilize it in low nitrogen environments; under limited nitrogen conditions, lead trait has demonstrated yield advantages over multiple years

Commercialization dependent on many factors, including successful conclusion of regulatory process

Example: Soy Yield Improvement Results From Our Transgene's Ability To Regulate A Plant System

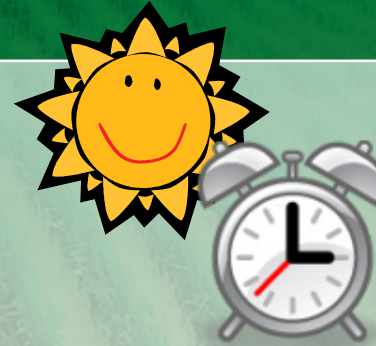
An Advanced Soy Yield Lead



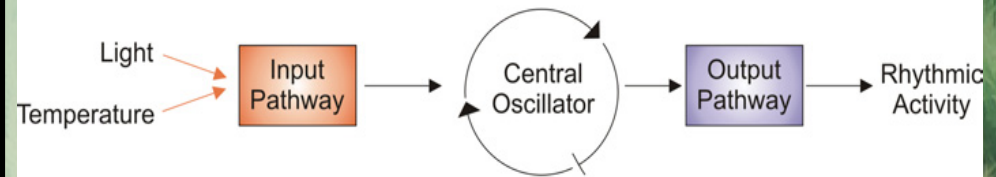
Control

With Transgene

Two lead events show average yield advantage of 7.4% and 6.7% over controls in meta analysis across three seasons of testing in 56 environments




Day-Night Cycle



Target of Gene Action

Modified Plant System Improves Growth

Key Soybean Projects in our R&D Pipeline

PRODUCT	BENEFIT
Omega-3 Soybeans 	<ul style="list-style-type: none">• Product similar to soybean oil in taste, shelf-life and oil stability; represent a land-based source of essential Omega-3 fatty acids
Vistive® III Soybeans 	<ul style="list-style-type: none">• Would offer enhanced fry stability; lowers linolenic and saturate content of soybean oil while boosting oleic content
Dicamba-Tolerant Soybeans 	<ul style="list-style-type: none">• Provide new, unique mode of action; designed to provide soybean growers with most effective weed management system available when stacked with Genuity™ Roundup Ready 2 Yield®
Higher-Yielding Soybeans 	<ul style="list-style-type: none">• 2nd and 3rd-generation products projected to provide incremental 10% yield increase when stacked with previous products; targeting multiple mechanisms to increase yield including stress reduction, biomass improvement and improved sink-source relationships

Commercialization dependent on many factors, including successful conclusion of regulatory process

Sharing of Monsanto Technology to Aid Farmers in the Developing World

Water Efficient Maize for Africa (WEMA)

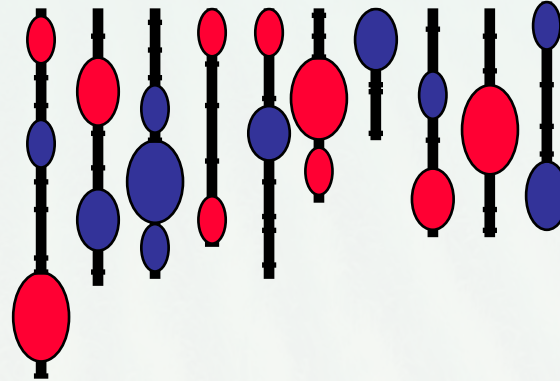


REGULATORY AND SCIENTIFIC PROGRESS BEING MADE IN KEY AFRICAN COUNTRIES

Different Technologies Provide Breeders Options to Select the Right Tools for the Job

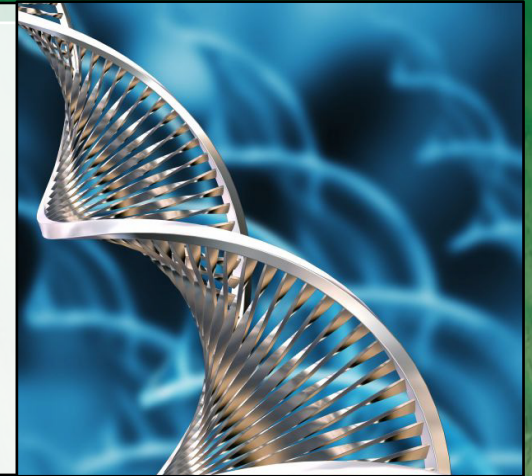


Conventional Breeding
Best platform overall for improvement



Genetic markers and marker assistance

- A more precise way of finding desirable traits
- Improves accuracy of trait advancement, speed of trait development and efficiency



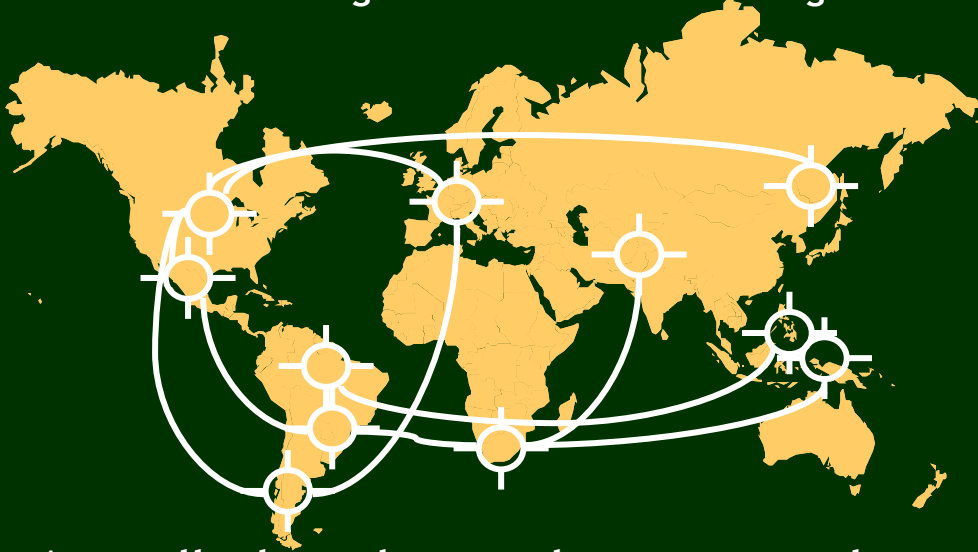
Biotechnology

- Efficient, accurate introduction of traits not available within species
- Additive features - trait stacking

Flexible use of multiple technologies gets the job done

Breeding is Undergoing a Technical Revolution that will Significantly Impact Yield and Trait Potential

CORN SEED GERmplasm LIBRARY Is Our Building Block for Better Breeding



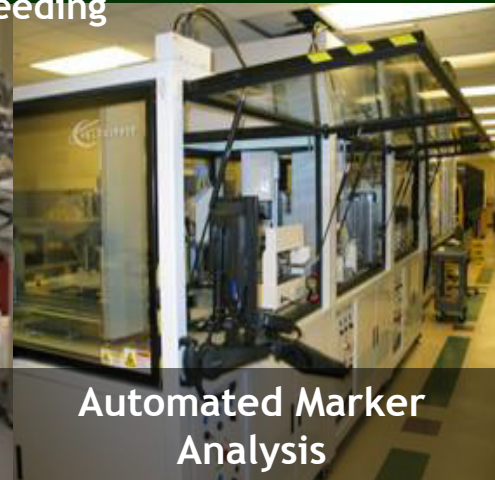
- ▶ Annually, breeders exchange more than a million different “packages” of germplasm material
- ▶ >50% of Monsanto’s corn hybrids result from intra-company crosses

MOLECULAR BREEDING

Accelerating the Rate of Gain Over Conventional Breeding



Soybean Seed Chipper



Automated Marker Analysis

- ▶ Capability to analyze 10s of millions of samples
- ▶ 3 million marker-trait associations providing detailed genome understanding

Example: Breeding For Better Resistance to Soybean Pests Helps Growers Protect and Increase Yield Potential

ENABLING GROWERS TO REDUCE COSTS ASSOCIATED WITH INSECTICIDE APPLICATION

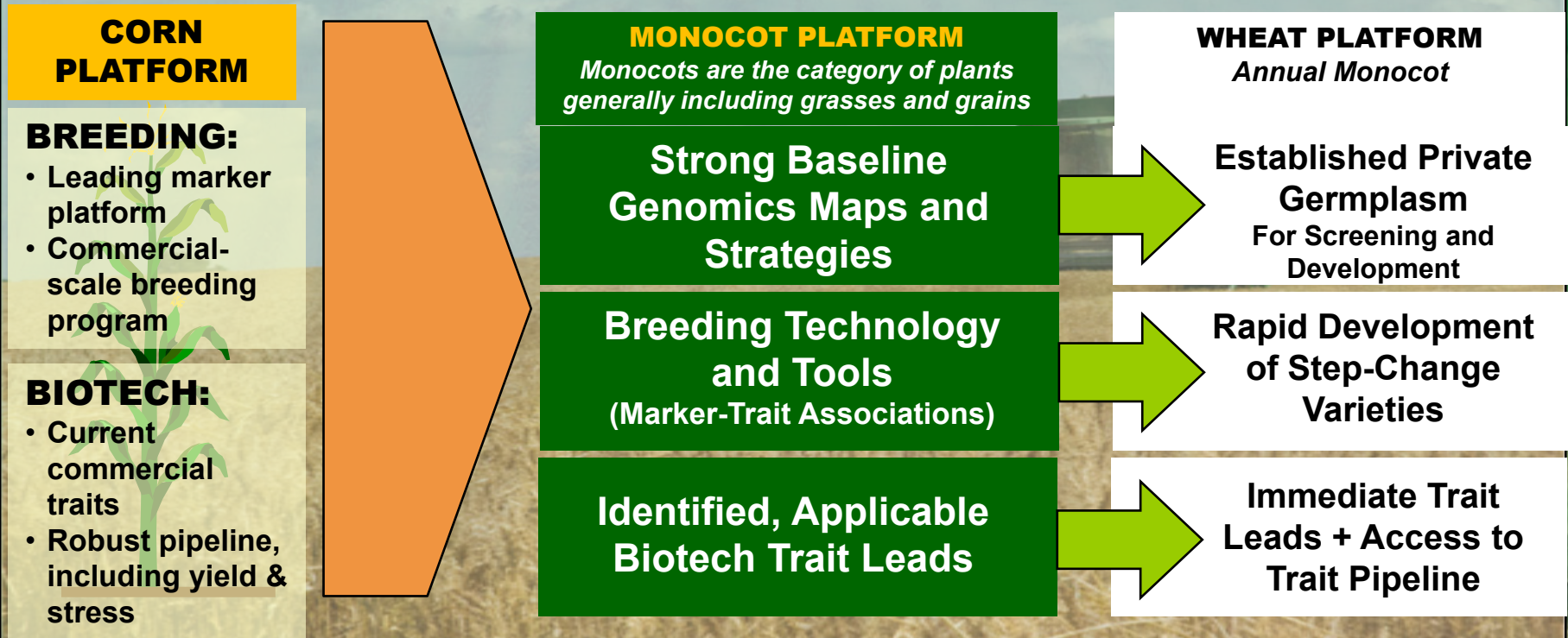
- In 2003, over 42 M acres were infested with soybean aphids
- Major pest in North Central U.S. growing region (nearly 61 M ac)
- Currently using markers to develop breeding populations and introduce resistance genes



Resistance to Aphids in Soybean is Advancing through Use of Marker Technology

Breeding & Biotech Will Soon be Utilized to Create a Valuable Wheat Platform

REDUCING FERTILIZER USE AND DROUGHT TOLERANCE ARE CORE BIOTECH TRAIT OPPORTUNITIES IN WHEAT



Monsanto is leveraging its core capabilities and technologies to improve wheat

Next Step:

Genomic Sequence-Enabled Product Pipeline

Products


Genetic Engine

- Test populations
- Breeding pipeline
- Transgenic plants

- #### Implementation
- High throughput genotyping
 - Whole genome sequencing
 - Seed chipping

- Accurate, sophisticated genetic modeling tools

- #### Data Mining
- Characterization of germplasm diversity



Enabling Platforms



Biodiversity



Phenotype



Environment

Base Information and Systems

- #### IT Systems and Tools
- Data Storage and access
 - Automated algorithms
 - Decision making



The Key to Making Use of Genomic Data Is Linking it to Crop Performance & Phenotypic Data

Explore

Identify and Locate Genetic Variation in Our Germplasm

- HT Sequencing and Informatics

expid	plotid	SHW	MST	TWT	STG	GDU	SLK	RTL	STL
0128SA	10108	27.4	16.2	55.8	7	1214	1195	5	0
0128SA	10102	28.1	17.5	57.8	6	1239	1239	3	0
0128SA	10101	34.6	17.5	56.5	6	1239	1239	0	0
0128SA	20106	29.2	16	56.6	7				
0128SA	20105	25.2	16.7	56.7	6				
0128SA	20104	32.6	16.6	56.4	6				
0128SA	20109	25.8	16	54.8	7				
0128SA	20108	27.5	17	56.8	6				
0128SA	20107	30.6	16.5	54.7	6				
0128SA	20101	27.8	15.7	55.3	8				
0128SA	20102	27.2	16.8	56	6				
0128SA	20103	33.1	17.2	55.3	6				

Assess

Develop high resolution populations

- Streamlined nurseries
- Controlled recombination
- Seed handling automation

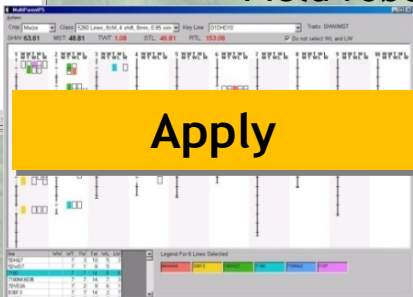
Obtain comprehensive plant performance assessments

- Managed environments
- Surrogate screens
- Imaging technology
- Field robotics

Interpret

Compare sequence data with phenotypic information.

- IT Systems
- Statistical algorithms



Apply

Reduce data complexity to enable decision making for line development and commercial testing

Rich, Unique Datasets Are Generated Across Technology

Our Datasets Are Derived From Multiple Sources, and are Getting Larger & More Complex

Plant Physiology: Precise Trait Description

Imaging

RNA Profiles

Genome Sequence

Large, High Quality, Diverse Data Sets add to Network Predictive Power

Metabolite Profiles

Field Performance

- Many university collaborators

Protein Interaction

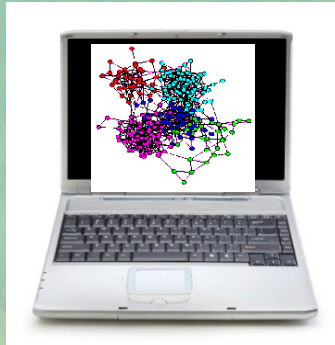
Protein Profiles

We broadly apply these data and analysis across our product pipeline

Huge data sets are only useful if the right information can be extracted to drive product development

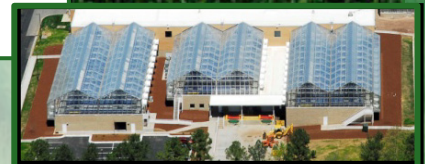
Computational Models

Functional Studies



Model
Plant
Discovery

Field Studies

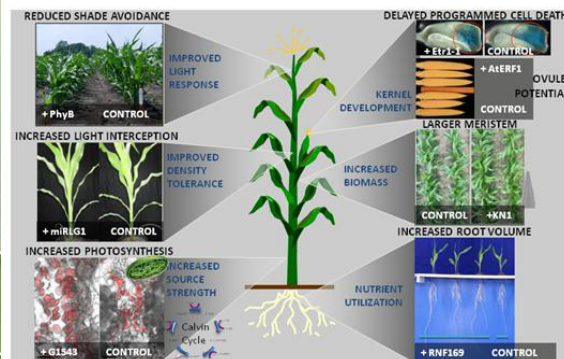


Greenhouse
Studies

Data Mining Tools/Prioritization Framework

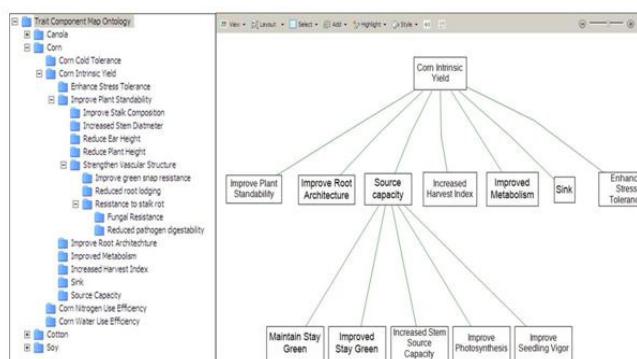
Biologists View

Visual and Intuitive



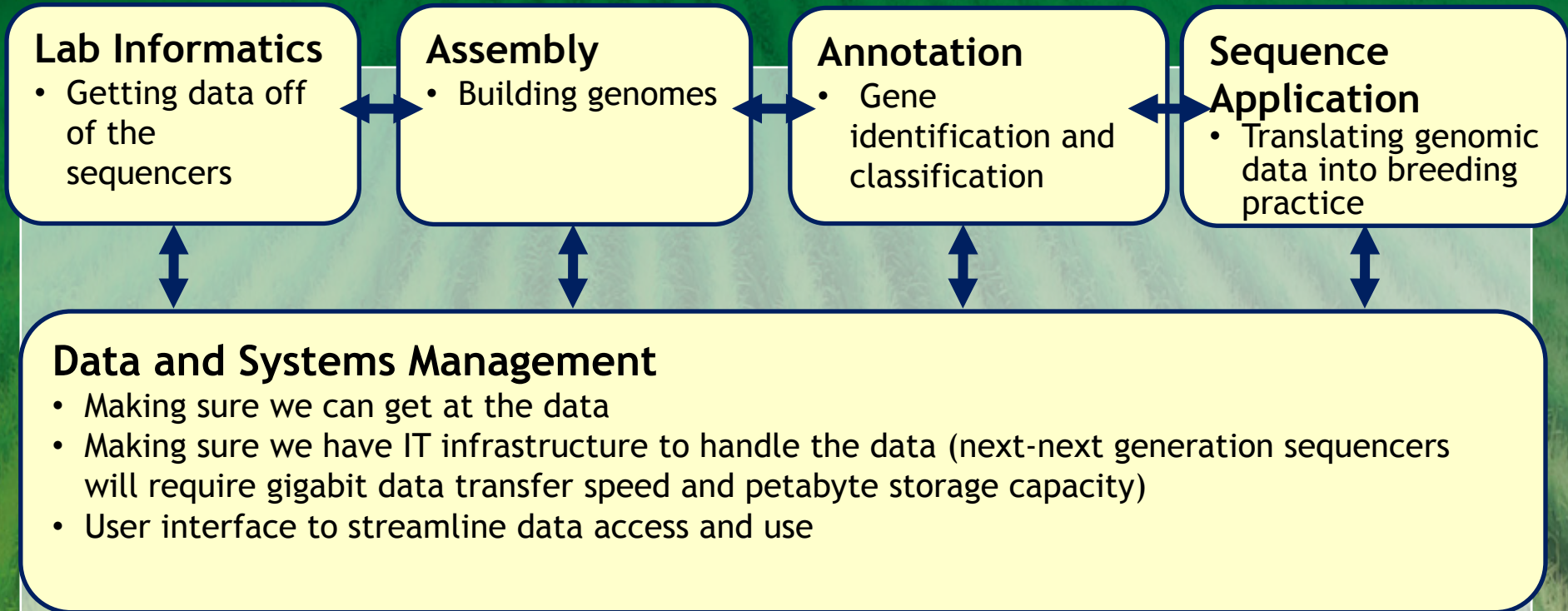
Process View

Visual and Intuitive
Integrated, Searchable and Extendable



Best
predictions
get tested in
transgenic
crops

Bioinformatics And Computational Analysis Are The Keys To Extracting Information from Data

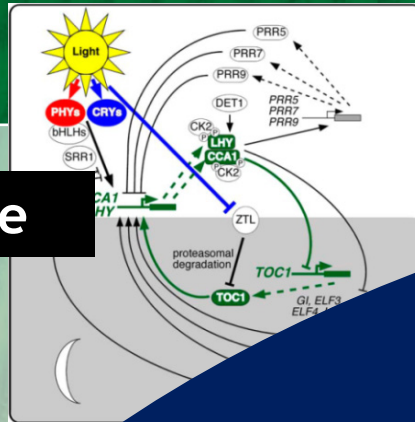


We care about finding genes and understanding the interaction between gene location and function

Putting These Datasets To Valuable Use Is Critical!

Moving towards converting DATA to INFORMATION resulting in PREDICTIVE MODELS for Complex Systems

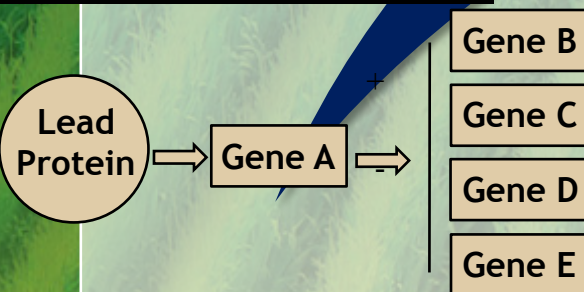
Day-Night Cycle



Yield

Transcriptional Regulation

Turns "on" and "off" a network of the plant's genes



Growth

Establishing predictive tools yields a more efficient product pipeline

Monsanto has many Alliances and Collaborations with other Companies and Academic institutions

Company Name	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Ecogen	█	█													
Mendel (I-IV)	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Millennium		█	█	█	█	█									
Paradigm-Icoria			█	█	█	█	█	█	█	█					
Land O'Lakes/FGI				█	█	█	█	█	█	█	█	█	█	█	█
Rosetta				█	█	█									
Ceres						█	█	█	█	█	█				
Affymetrix						█	█								
Rosetta							█	█							
Devgen (I & II)								█	█	█	█	█	█	█	█
Divergence								█	█	█	█				
Targeted Growth									█	█	█				
Arcadia									█	█	█	█	█		
Modular Genetics									█	█	█				
Athenix											█	█	█	█	█
Diagnostic I											█	█	█	█	█
Solae											█	█	█	█	█
BASF											█	█	█	█	█
Chromatin											█	█	█	█	█
Diagnostic II											█	█			
Senesco											█	█	█	█	█
Evogene											█	█	█	█	█

Partial list of Monsanto alliance partners.



Thank You!