Nutrient Requirements for Tomorrow's Genetic Innovations

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Corn Technology
Monsanto Company
February 15, 2010

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.

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 Has Undergone Many Changes in the Past Decade, But the Technology Strategy Began Long Ago

Seeds

DEKALB

DELTAPINE

ASGROW DELIVERS

Monsanto Vegetables

Traits

genuity™

Herbicide tolerance

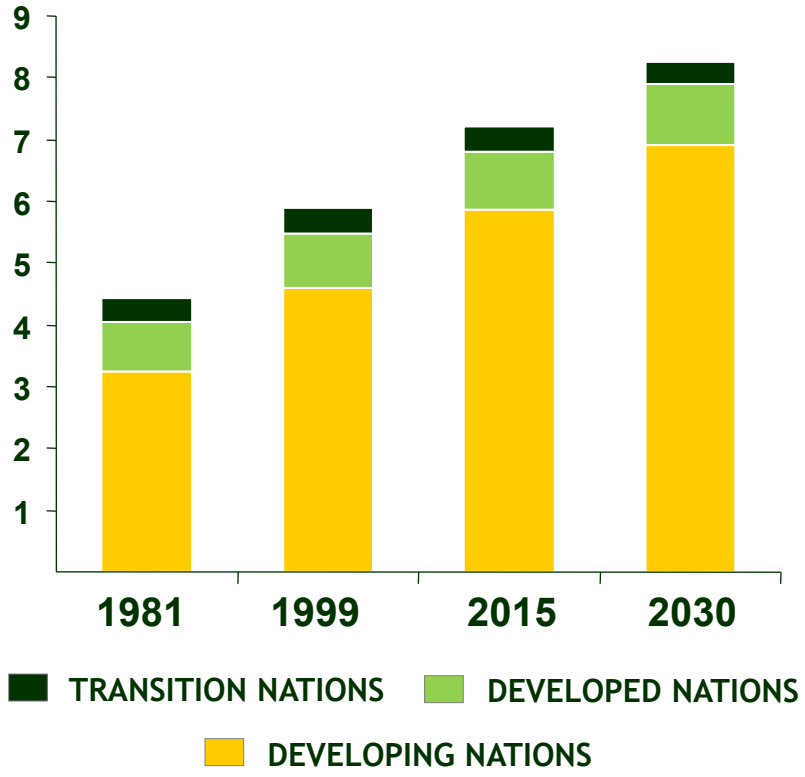
Weather Protection

Insect Protection

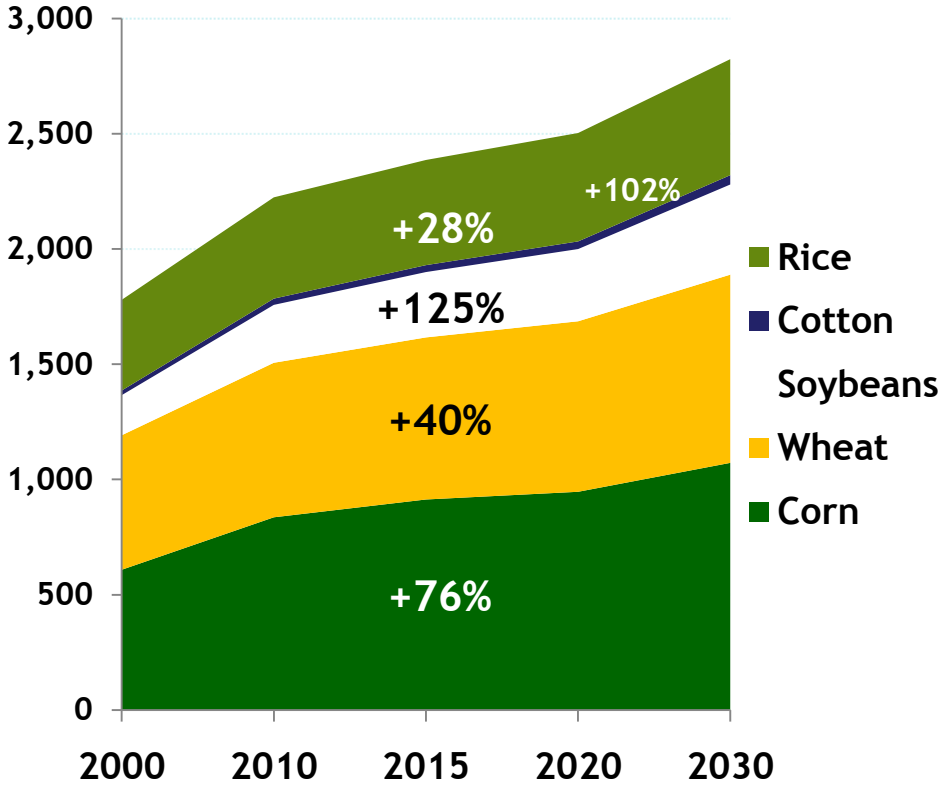
Increased Productivity

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

GROWING WORLD POPULATION (B)



GLOBAL GRAIN DEMAND (M MT)



Sources: FAO "World Agriculture: towards 2015/2030. Summary Report"; IHS Global Insights , Agriculture Division

Hundreds gather to protest global warming

http://climatechangefraud.com/humor/5943-hundreds-gather-to-protest-global-warming

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

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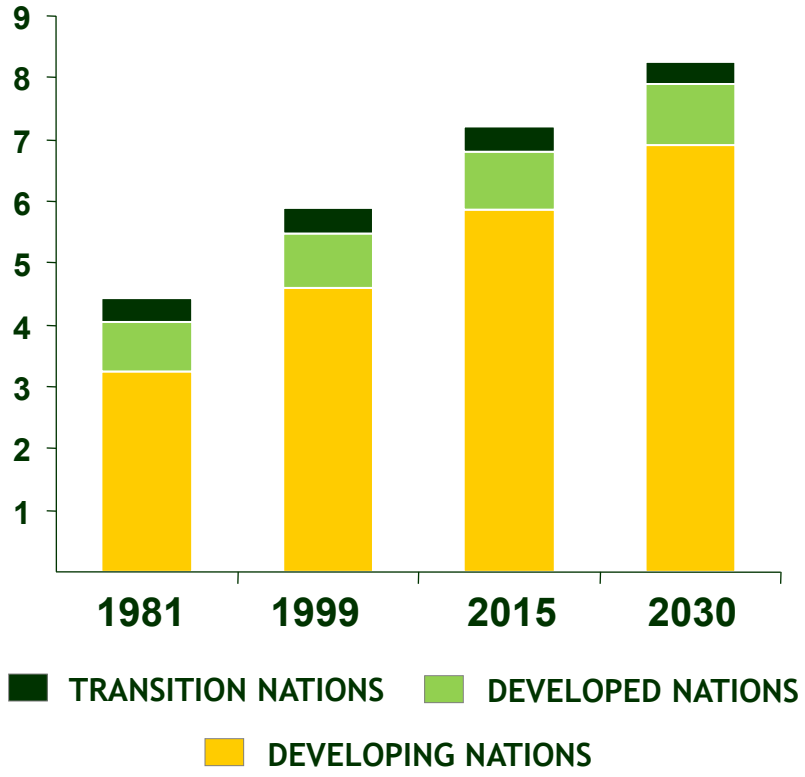

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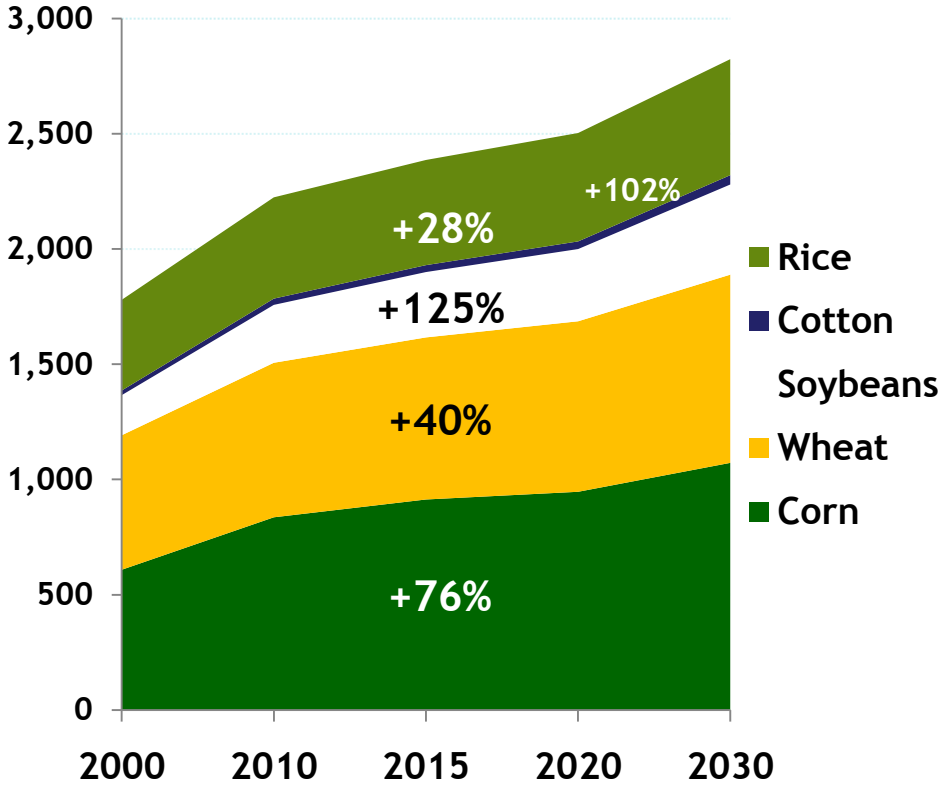
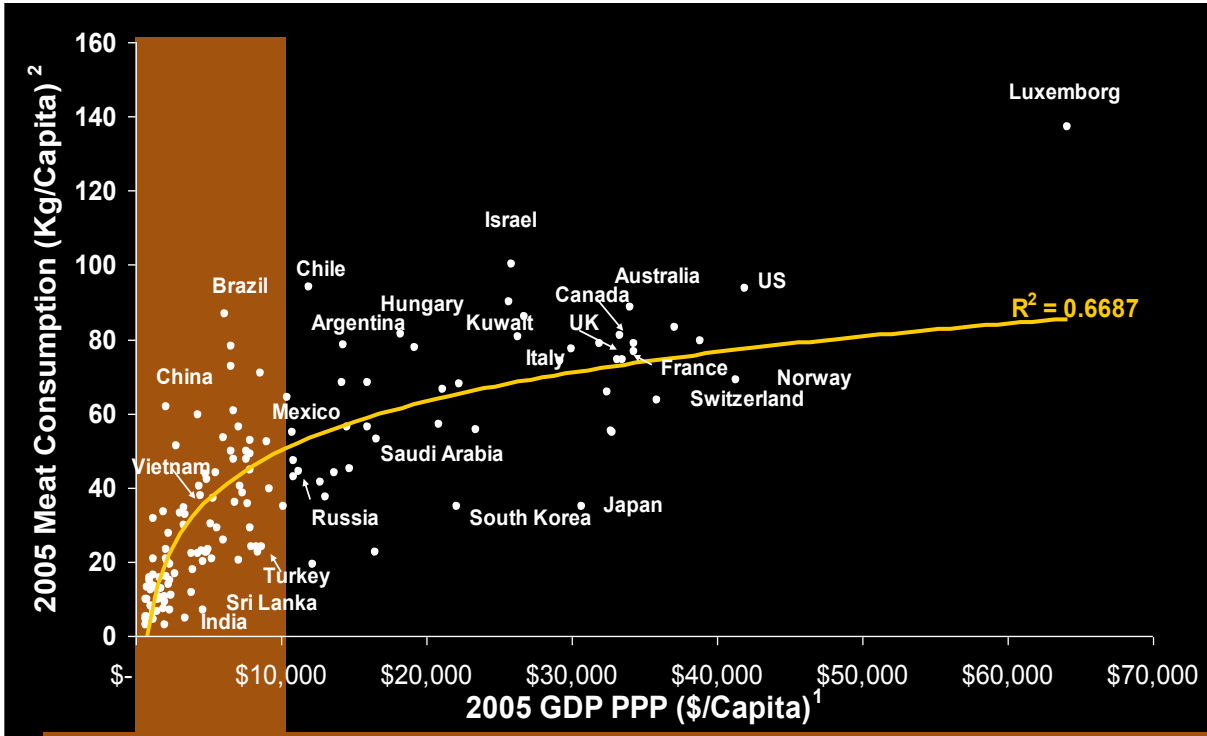


Sources: FAO "World Agriculture: towards 2015/2030. Summary Report"; IHS Global Insights , Agriculture Division

Global Trends Set Stage for Increasing Protein Demand Over the Next Decade

INCREASING PROTEIN DEMAND: Relationship Between GDP and Meat Consumption



Increasing meat demand creates disproportionate pull on grain

CONVERSION ESTIMATES

1 LB Beef:	7-8 LBS GRAIN
1 LB PORK:	2-3 LBS GRAIN
1 LB CHICKEN:	1-2 LBS GRAIN

FIRST $10K IN PER-CAPITA GDP:

- Includes emerging economic powers like China and Brazil
- Has largest meat-consumption spread (82 kg/person) of any $10K increment – indicating opportunity for ascension with small increases in actual income

1. World Development Indicators Online, The World Bank Group,
2. FAOSTAT | © FAO Statistics Division 2007 | 30 October 2007

A Global Commitment To Growing Yield Sustainably®

THREE MAIN GOALS ARE AT THE HEART OF THIS EFFORT

Help farmers **DOUBLE YIELDS** in corn, cotton & soybeans by 2030

REDUCE by 1/3 the inputs required per unit of output

IMPROVE THE LIVES of farmers around the world

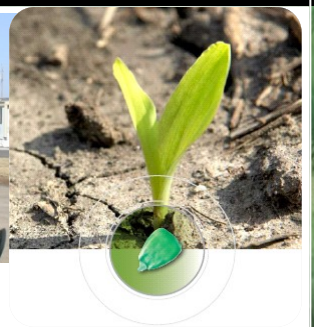
What Does it Mean to Double Yield in the U.S. by 2030?

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

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

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.

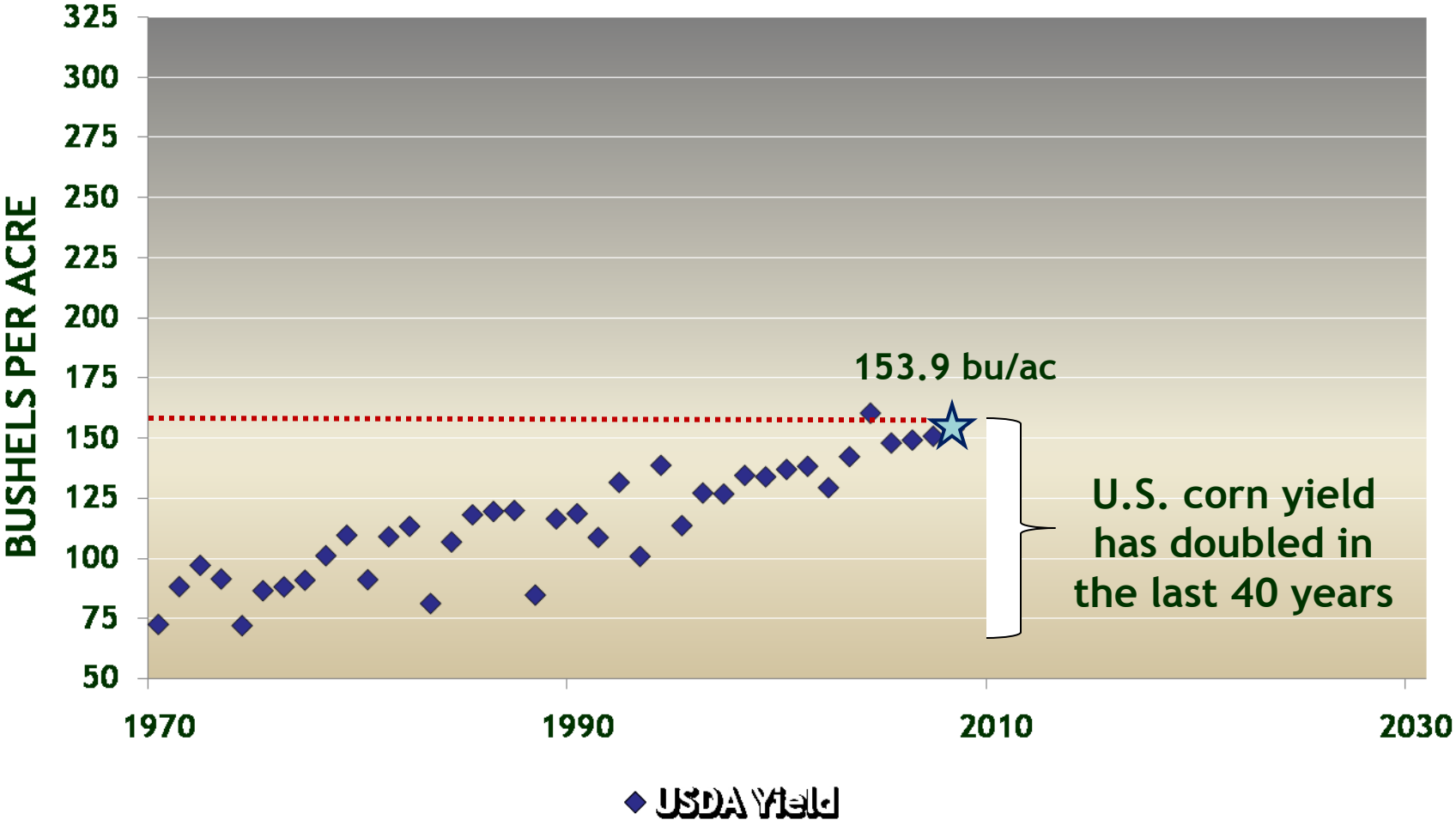
Biotechnology

Adds special beneficial genes to the plant.

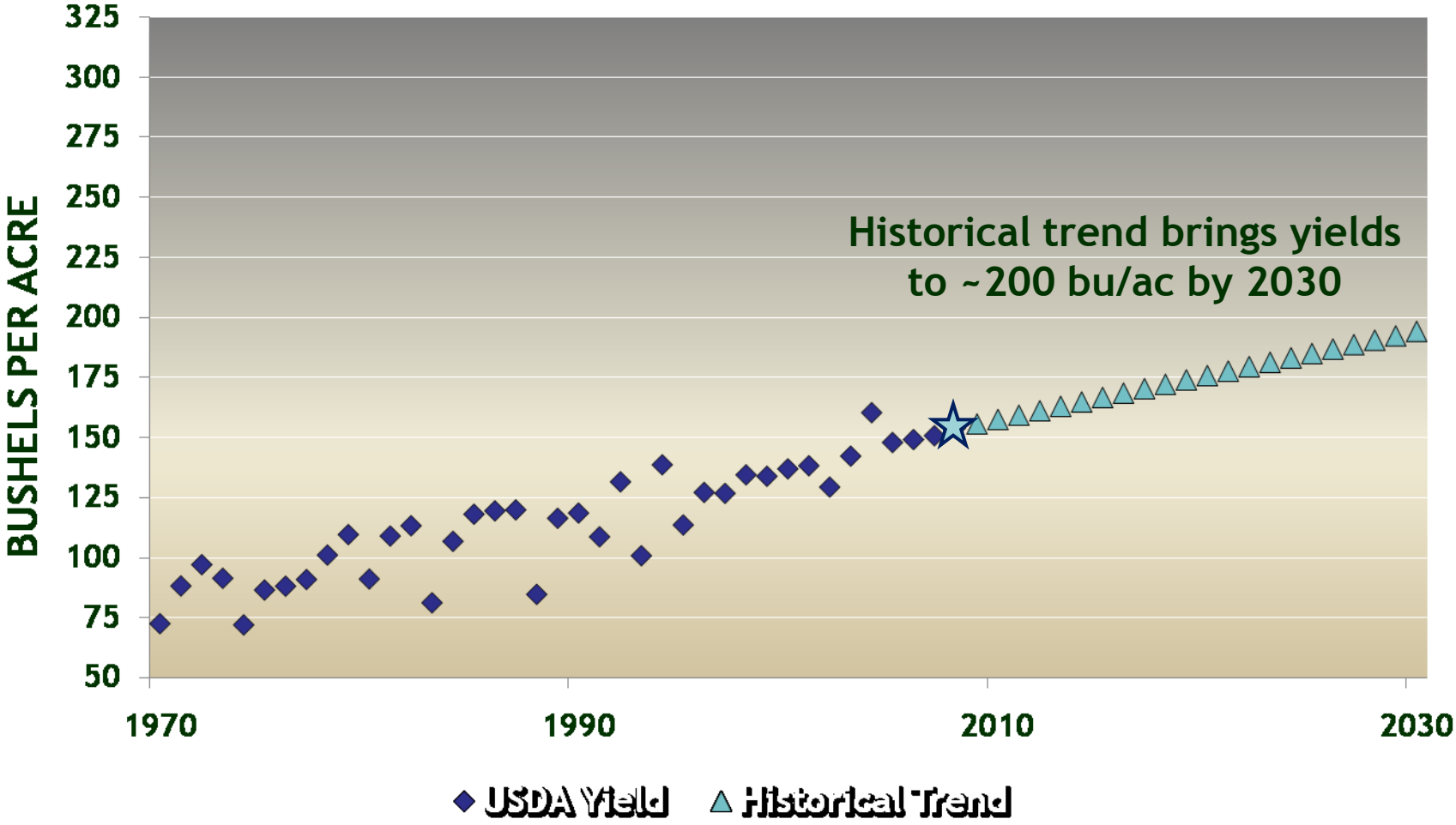
Agronomics

Agronomic practice improvements make acres more productive.

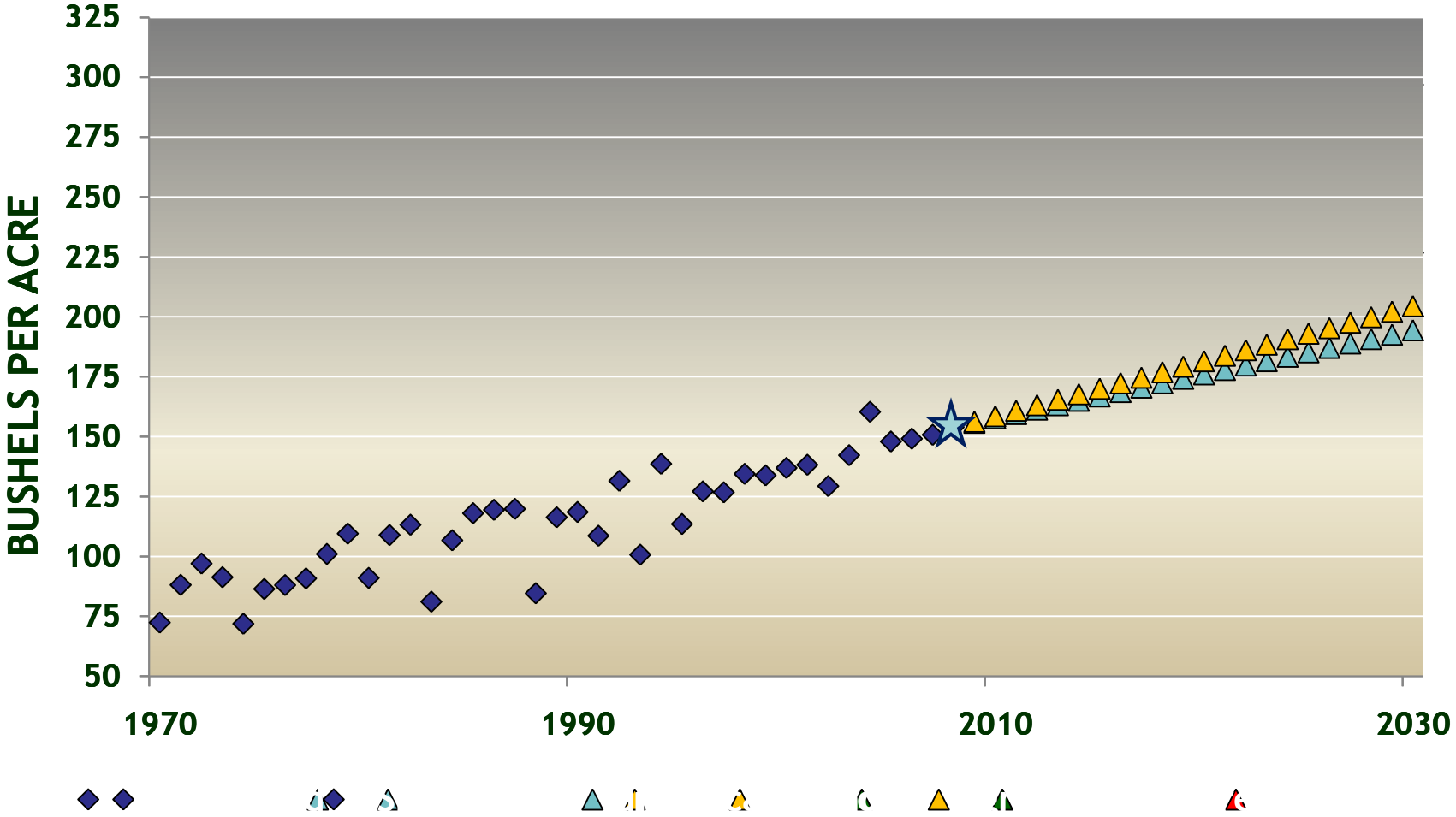
Corn Yield Components to 2030



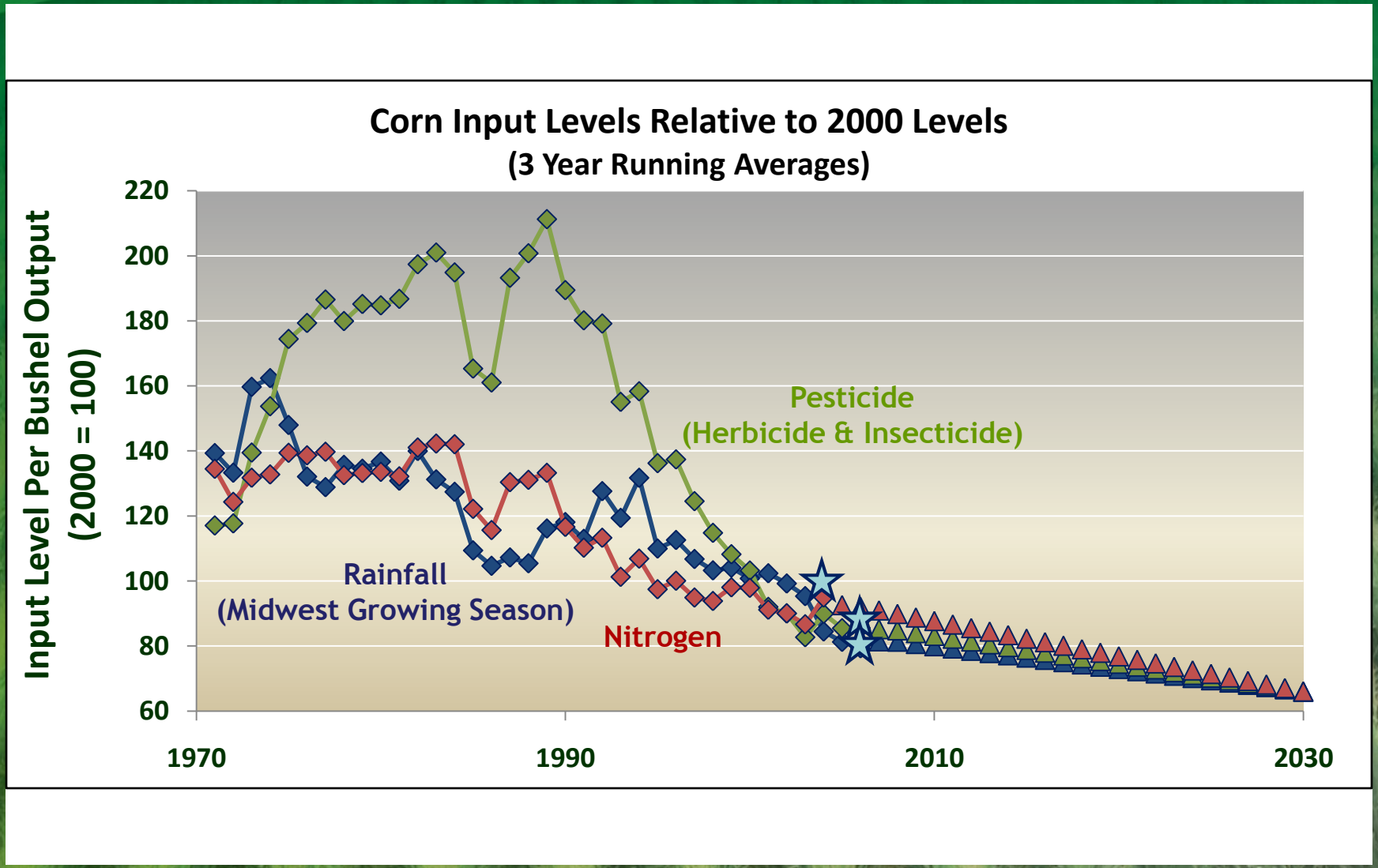
Corn Yield Components to 2030



Corn Yield Components to 2030



Produce More, Conserve More®: Pesticide, Nitrogen, Rainfall Use Declining In Corn



Data Source: USDA, NASS "Agricultural Chemical Usage Report"; dmrkynetec; NOAA; USDA ERS


HELPING FARMERS MEET THE
DEMAND: BREEDING

Plant Breeding is Experiencing a Technical Revolution That Will Drive Yield Improvements

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 is 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

Seed Chippers Simplify & Speed up the Breeding Process

Expansive Breeding and Testing Geography Enables Effective Product Identification and Placement

Monsanto U.S. Corn Breeding Testing Locations

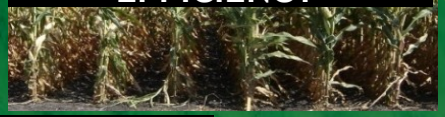
Regional breeding teams:

- Focus on most elite germplasm
- Maintain important germplasm types
- Enhance product diversity
- Enhance breeder germplasm knowledge and info exchange


HELPING FARMERS MEET THE
DEMAND: BIOTECHNOLOGY

Pipeline Biotech Corn Projects

NITROGEN USE EFFICIENCY



DROUGHT II CORN

HIGHER-YIELDING CORN

DROUGHT-TOLERANT CORN

GENUITY™ SMARTSTAX™

2000-2030 Target ~70 bu/acre U.S. yield gain

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

We Address Challenges One Phase at a Time, Beginning with Discovery

	DISCOVERY Gene/Trait Identification	PHASE I Proof Of Concept	PHASE II Early Development	PHASE III Advanced Development	PHASE IV Pre-launch
AVERAGE DURATION[1]	24 to 48 MONTHS	12 to 24 MONTHS	12 to 24 MONTHS	12 to 24 MONTHS	12 to 36 MONTHS
SPENDING	$2-5M	$5-10M	$10-15M	$15-30M	$20-40M
AVERAGE PROBABILITY OF SUCCESS[2]	5 PERCENT	25 PERCENT	50 PERCENT	75 PERCENT	90 PERCENT
	MONSANTO DISCOVERY & COLLABORATIVE PARTNERS			TRAIT INTEGRATION FIELD TESTING REGULATORY DATA GENERATION REGULATORY SUBMISSION SEED BULK UP	
GENES IN TESTING	TENS OF THOUSANDS	THOUSANDS	10s	<5	1
KEY ACTIVITY	•HIGH-THROUGHPUT SCREENING •MODEL CROP TESTING	•GENE OPTIMIZATION •CROP TRANSFORMATION	•TRAIT DEVELOPMENT •PRE-REGULATORY DATA •LARGE-SCALE TRANSFORMATION	•TRAIT INTEGRATION •FIELD TESTING •REGULATORY DATA GENERATION	•REGULATORY SUBMISSION •SEED BULK-UP •PRE-MARKETING

1)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.
2) This is the estimated average probability that the traits will ultimately become commercial products, based on our experience. These probabilities may change over time.

Genuity™ SmartStax™ Corn Increases Yield Potential Through Better Weed and Insect Control

Discovery	Phase 1 Proof of Concept	Phase 2 Early Development	Phase 3 Adv. Development	Phase 4 Pre-Launch	Launch

* Yield benefit reflects expected yield benefit above triple-stack standard, on a per-acre and whole-farm basis as noted. Ranges may overlap.

Genuity™ SmartStax™ : The Best Spectrum

PRIMARY PESTS	genuity SmartStax	HERCULEX™ XTRA HX	Optimum® AcreMax™ 1	Agrisure® 3000GT
European Corn Borer (Ostrinia nubilalis)	✓✓✓	✓		✓
Southwestern Corn Borer (Diatraea graandiosella)	✓✓✓	✓	✓	✓
Northern Corn Rootworm (Diabrotica barberi)	✓✓	✓	✓	✓
Western Corn Rootworm (Diabrotica virgifera virgifera)	✓✓	✓	✓	✓
Corn Earworm (Helicoverpa zea)	✓✓			
Fall Armyworm (Spodoptera frugiperda)	✓✓✓	✓	✓	
Western Bean Cutworm (Richia albicosta)	✓	✓	✓	
Black Cutworm (Agrotis ipsilion)	✓	✓	✓	
Herbicide Tolerance	✓✓	✓✓	✓✓	✓✓
Refuge (corn belt)	5%	20%	20% for Above Ground	20%

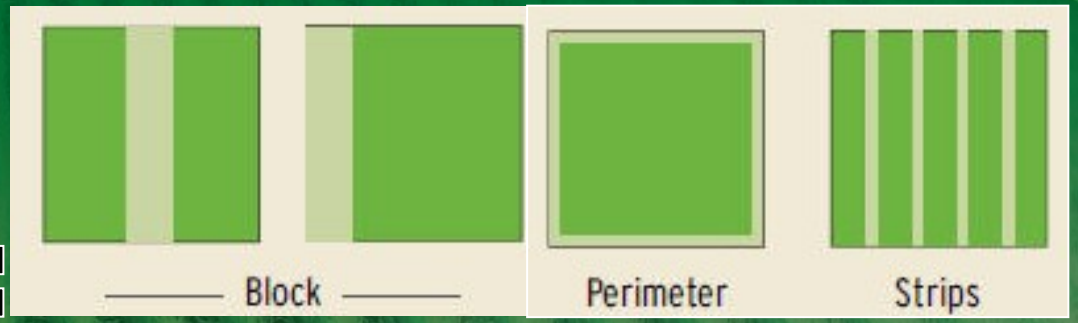
✓ Single mode activity

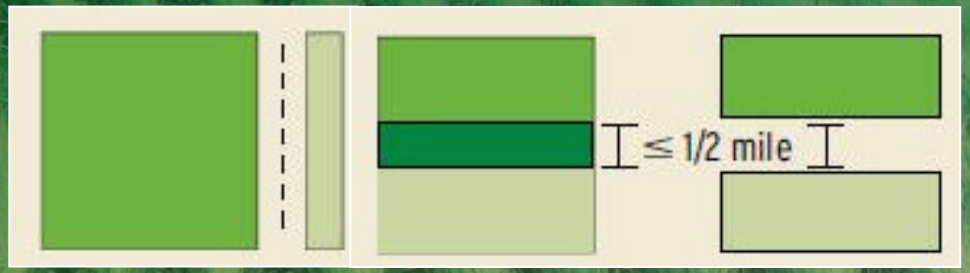
✓✓ Dual mode activity

✓✓✓ Triple mode activity

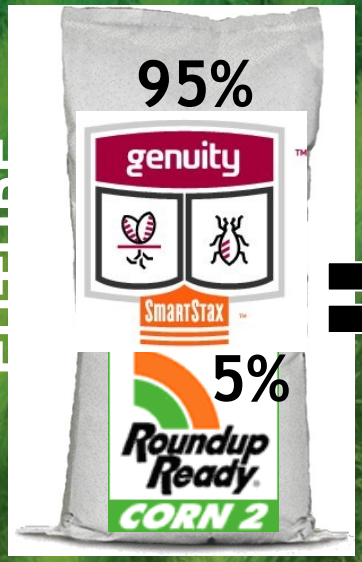
Next Step: Refuge In a Bag

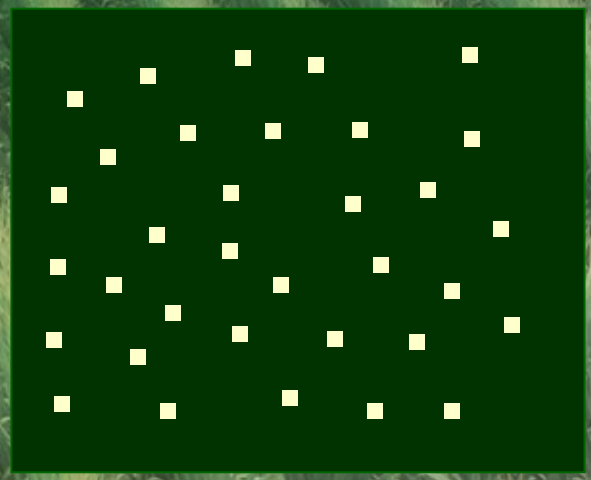
CURRENT





FUTURE





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

Field Testing Showed Lead Drought Event Increased Yield in Stressed Conditions

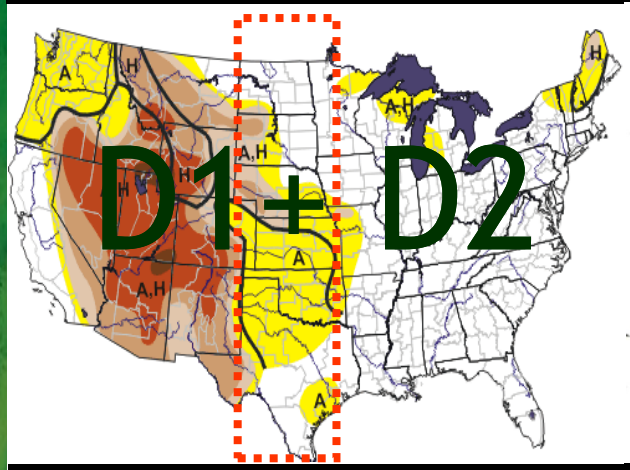
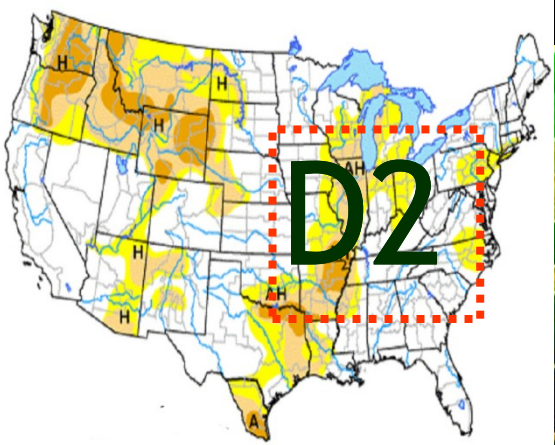
DROUGHT TOLERANT CORN FAMILY

COLLABORATION WITH BASF The Chemical Company

Control **With Gene**

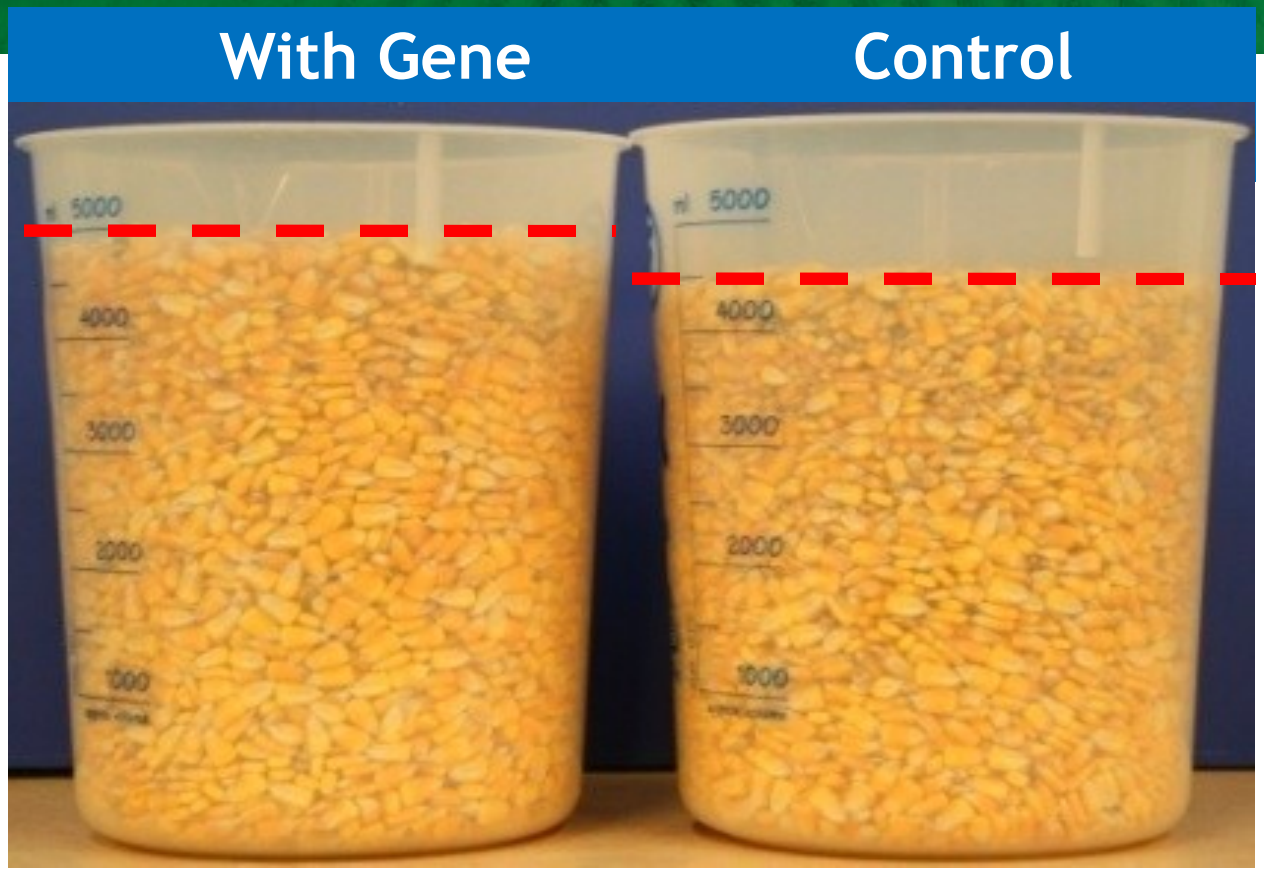
Discovery	Phase 1 Proof of Concept	Phase 2 Early Development	Phase 3 Adv. Development	Phase 4 Pre-Launch	Launch

1st & 2nd Generation Drought Tolerant Corn Products Are Designed to Meet the Needs of Farmers in Different Regions

Western US Dryland	Drought "Insurance"	Reduced Irrigation Cost
		
KS, NE, TX, CO, SD, ND 10-13 M acres corn	Central, E. and S. Corn Belt 30-50M acres	KS, NE, TX, CO, ID 12M acres

- Drought 1 Targets a Yield Advantage in Western Great Plains Dryland production
- Drought 2 Adds a Yield Advantage in Drought "Insurance" Market When Drought Occurs

Lead Higher-Yielding Corn Events Show Improved Yield Across Multiple Years and Testers

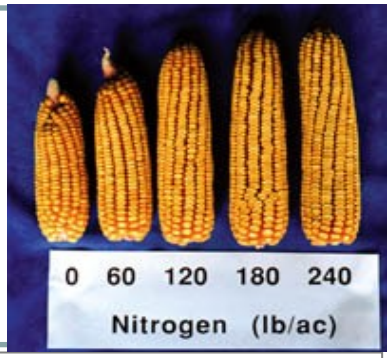


- Two years of consistent yield performance across multiple testers and events in high yielding hybrids
- Testing in 2010 will expand germplasm panel and trial types

Aimed at boosting the intrinsic yield potential of corn hybrids.

Discovery	Phase 1 Proof of Concept	Phase 2 Early Development	Phase 3 Adv. Development	Phase 4 Pre-Launch	Launch

The future – Focus on work at Monsanto
Targets ways to Use Nitrogen More Efficiently in Corn



Nitrogen Facts

- Only 40-60% of Nitrogen applied to corn is taken up and used during the first year
- ~$391M of Nitrogen fertilizer is lost down the Mississippi River
- N_2O is ~290X more potent greenhouse gas than CO_2

Nitrogen Utilization Corn:

- Can potentially boost yield under normal nitrogen conditions or stabilize it in low nitrogen environments
- 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

Sources: O'Neill et al., 2004; http://nue.okstate.edu/; Microbial Life Educational Resources; http://www.ewg.org/

Exploring Nitrogen Use Efficiency as an Indirect Benefit of YieldGard® Traits

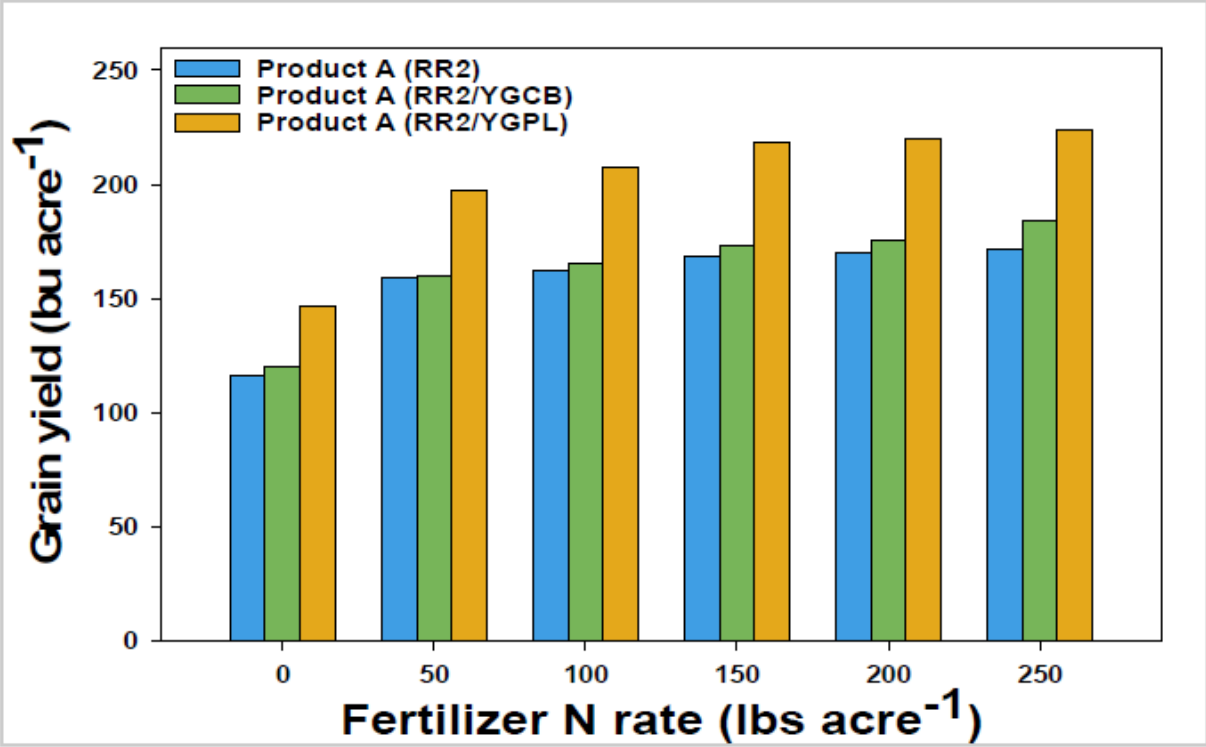
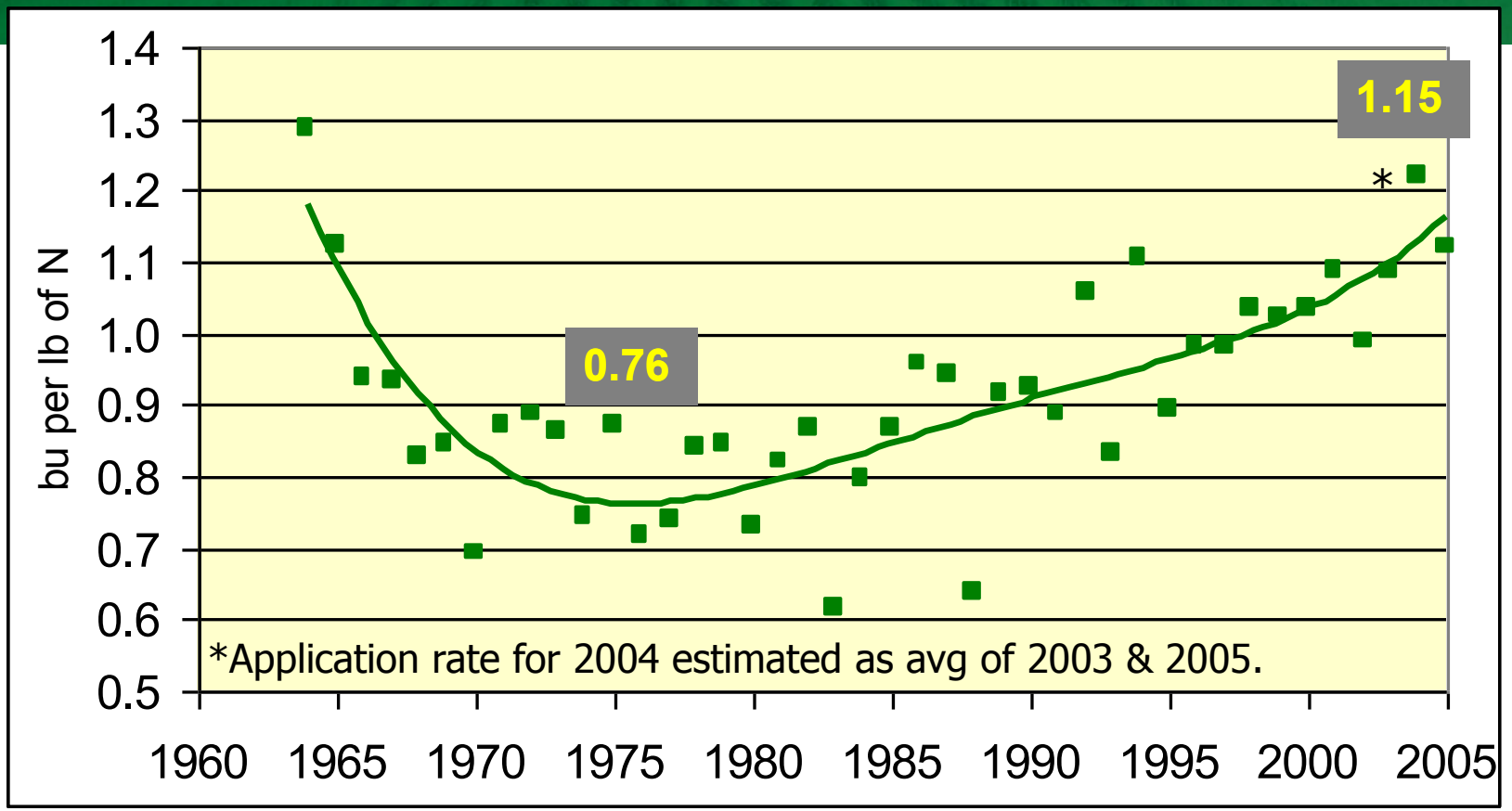


Figure 5. Comparison of grain yield to fertilizer N rate. University of Illinois Crop Physiology Lab. 2006.

Stacked Traits in Elite Germplasm Facilitate Greater Yields Through More Efficient Use of Nitrogen Resources

Corn grain produced in the U.S. per unit of fertilizer N used, 1964 to 2005.

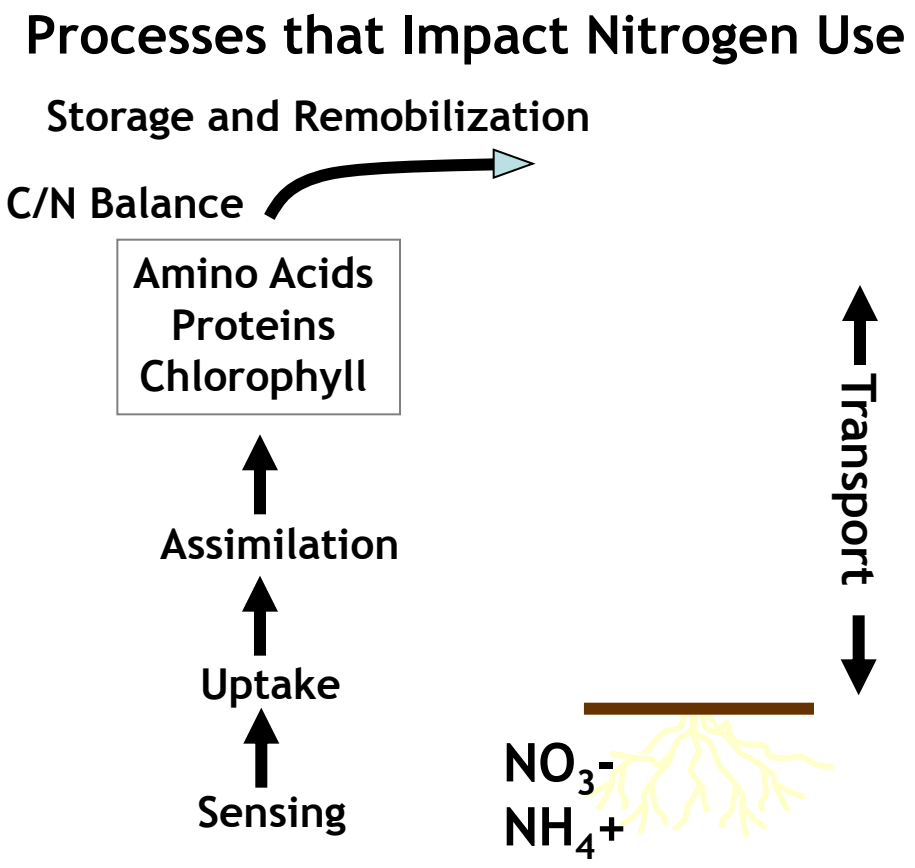


Since 1975: **51% increase in N efficiency**
12% increase in N fertilizer use

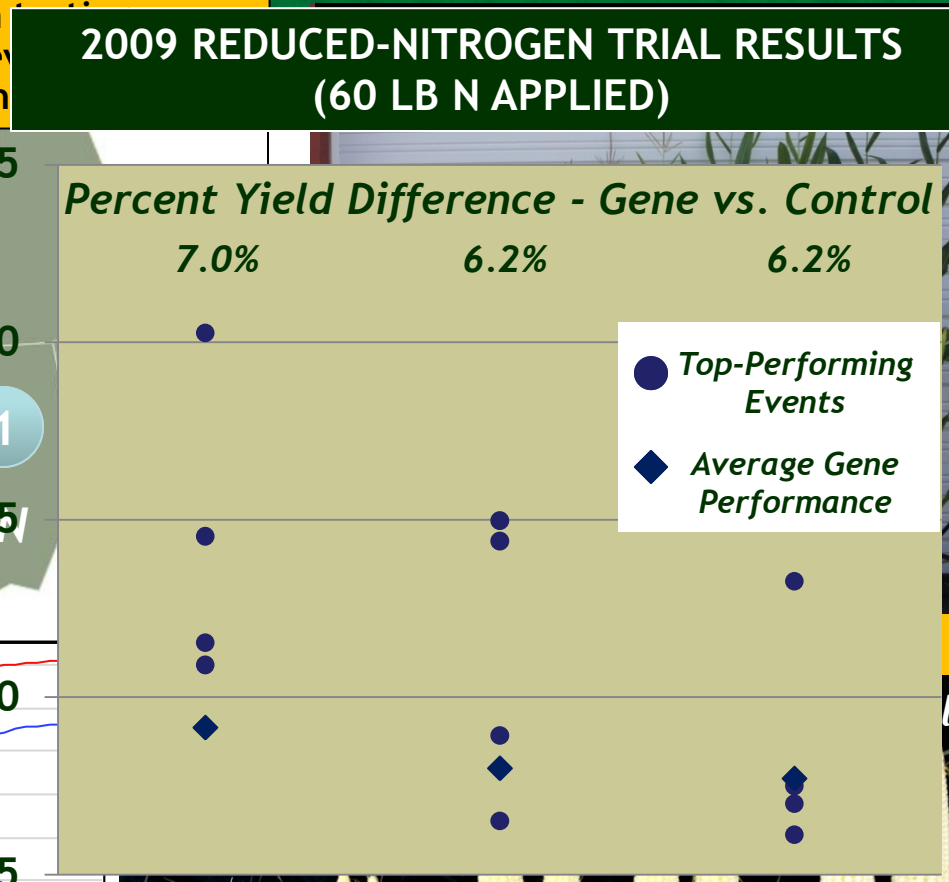
Data sources: USDA Ag Chem Use Survey & Annual Crop Production.

Diverse Mechanisms for Nitrogen-Use Efficiency Leads

Pathway	Leads
Enhanced Nitrogen Uptake/Transport	✓
Improved Nitrogen Assimilation	✓
Enhanced Protein Synthesis	✓
Improved photosynthesis	✓
Improved General Stress Response	✓
Pathway regulation	✓



Extensive Nitrogen Field Testing Network Developed; Several Promising Leads Identified for Advanced Testing

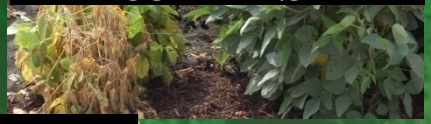


Discovery	Phase 1 Proof of Concept	Phase 2 Early Development	Phase 3 Adv. Development	Phase 4 Pre-Launch	Launch

Pipeline Biotech Soybean Projects

2nd GENERATION HIGHER-YIELDING SOYBEANS

DICAMBA-TOLERANT SOYBEANS



HIGHER-YIELDING SOYBEANS

genuity

Roundup Ready 2 Yield

2000-2030 Target ~14 bu/acre U.S. yield gain

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

HELPING FARMERS MEET THE DEMAND: AGRONOMIC PRACTICES

Agronomic Practice Improvements Expected to Continue to Increase Yields in the U.S.

BREEDING AND BIOTECH ARE CRITICAL, BUT SO ARE OTHER CONTRIBUTORS

AGRONOMIC PRACTICE	BENEFIT
Fungicides 	Using Headline® fungicide in an acre of corn can bring a 10 to 13.5 Bu/A benefit to the grower.
Plant Populations 	More strategic planting densities can increase bushels per acre, even with today's traits and genetics.
Precision Agriculture 	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.
Seed Treatments 	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

Interaction of Hybrid, Row Spacing & Populations

Rochelle, IL locations, 2009)

Plant Population (plants per acre)

Reinventing Seed Treatment Products to Deliver Breakthrough in Performance

ACCELERON™ Insect Disease Corn
Seed Treatment Products

FUTURE

Partnering To Find Solutions

Solving Unmet Needs

Soybean Seed Treatment Vigor Comparison - Nebraska 2009 Field Trials

Nematodes
Root Worm
Wire Worms
Seed Maggot
Disease Control

Polymers
Encapsulation
Nutrients
Intrinsic Yield
Stress

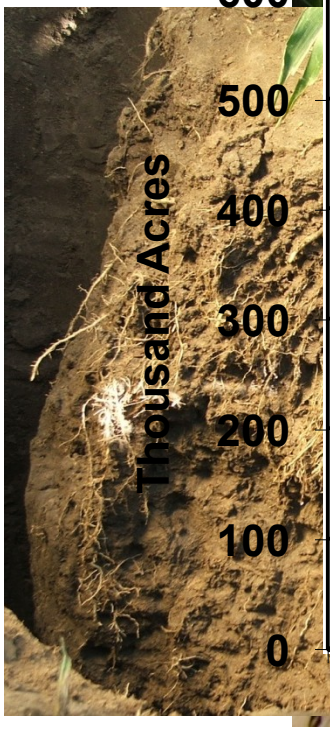
Untreated *Ro*
Ready soyb

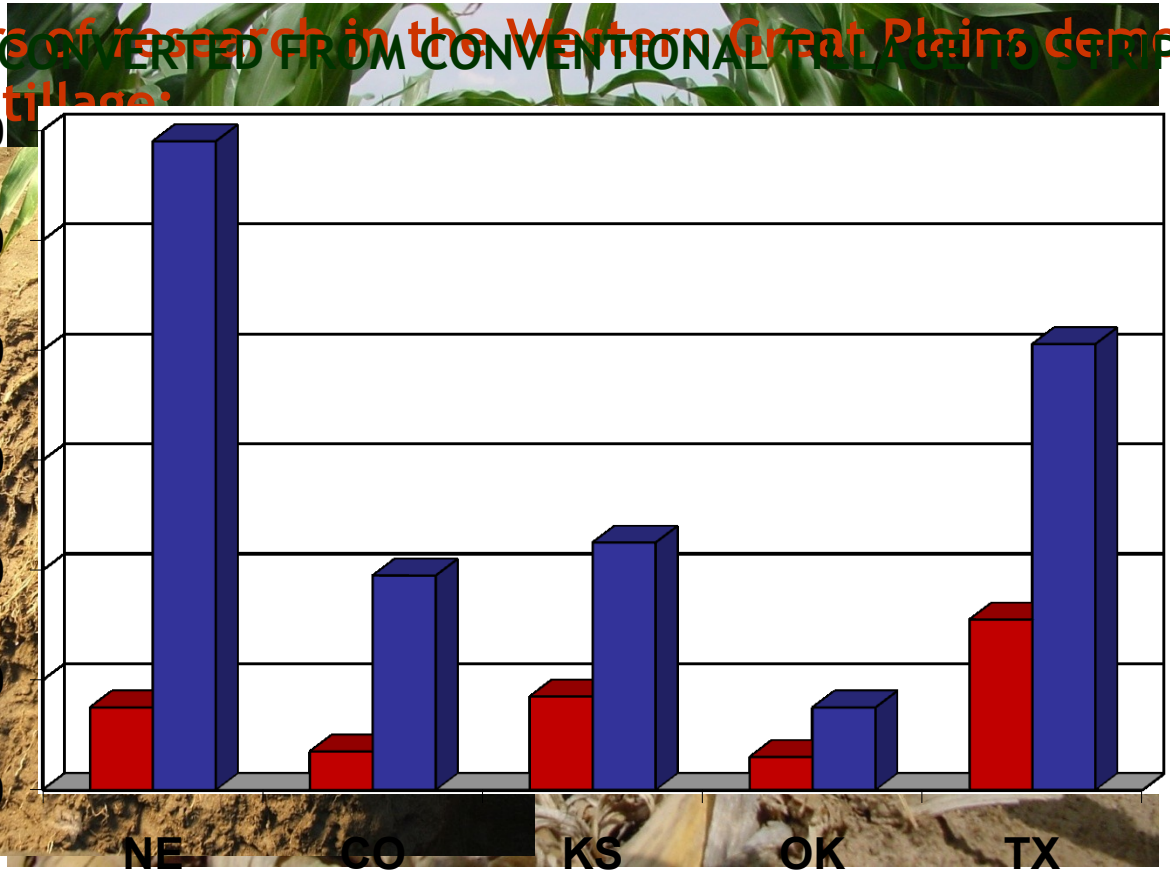
Ready 2 Yield
with *Acceleron*

Backed by the industry's largest, most rigorous testing program

Agricultural Management Practices Can Help Make the Most of Available Soil Moisture

Eight years of research in the Western Great Plains demonstrates that strip tillage:





rms,
soil pores)
ilization
- 44%
than

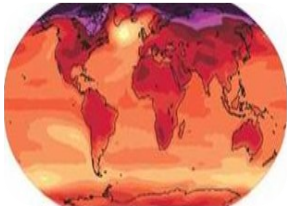
Together, We Can Help Enable Doubling of Yields by 2030

Our Science. *Your Success.*®

DOUBLING YIELDS BY 2030 WILL REQUIRE COLLABORATION

- Farmers will double yields by 2030 and we will play our part along with others in the agriculture industry to help make 300 bushel corn a reality in 2030.

WE ALL HAVE A ROLE AND RESPONSIBILITY TO HELP ADDRESS GLOBAL AGRICULTURAL ISSUES



- New technologies play an integral part in ensuring global food and energy security in the face of challenges like population, water and land limits.
- Together, we can support increasing agricultural productivity in a sustainable way