

Robb Fraley Chief Technology Officer

Ted Crosbie Vice President, Breeding



Monsanto Yield Results Luncheon December 8, 2009

MONSANTO



Forward-Looking Statements

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 periodic report to the SEC. 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.

Trademarks

Trademarks owned by Monsanto Company and its wholly-owned subsidiaries are italicized in this presentation. All other trademarks are the property of their respective owners.

© 2009 Monsanto Company

Monsanto's Growth Opportunity Lies at the Intersection of Demand, Innovation and Execution

Monsanto's Simple Philosophy on Opportunity:

① More demand requires more

YIELD

② More yield requires more

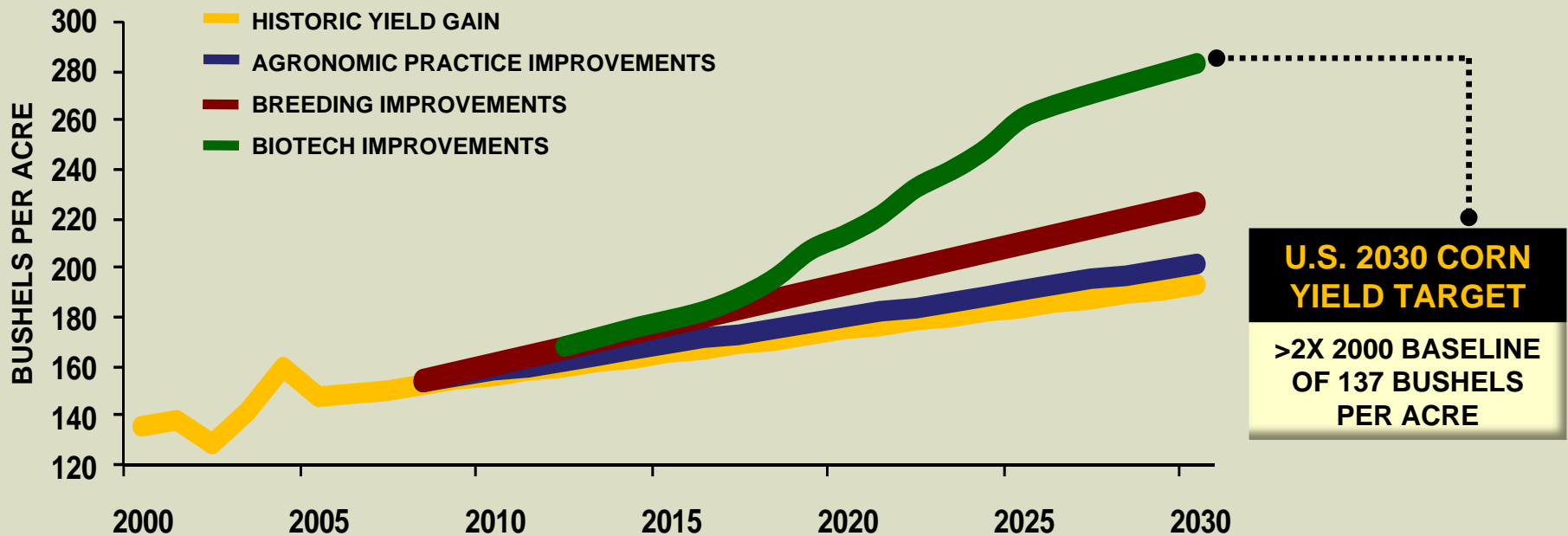
INNOVATION

③ More innovation delivers more

GROWTH

Monsanto Innovation Targeted at Helping Farmers Double Yield by 2030, Creating New Grower Value

DOUBLING YIELD WITH TECHNOLOGY U.S. CORN EXAMPLE

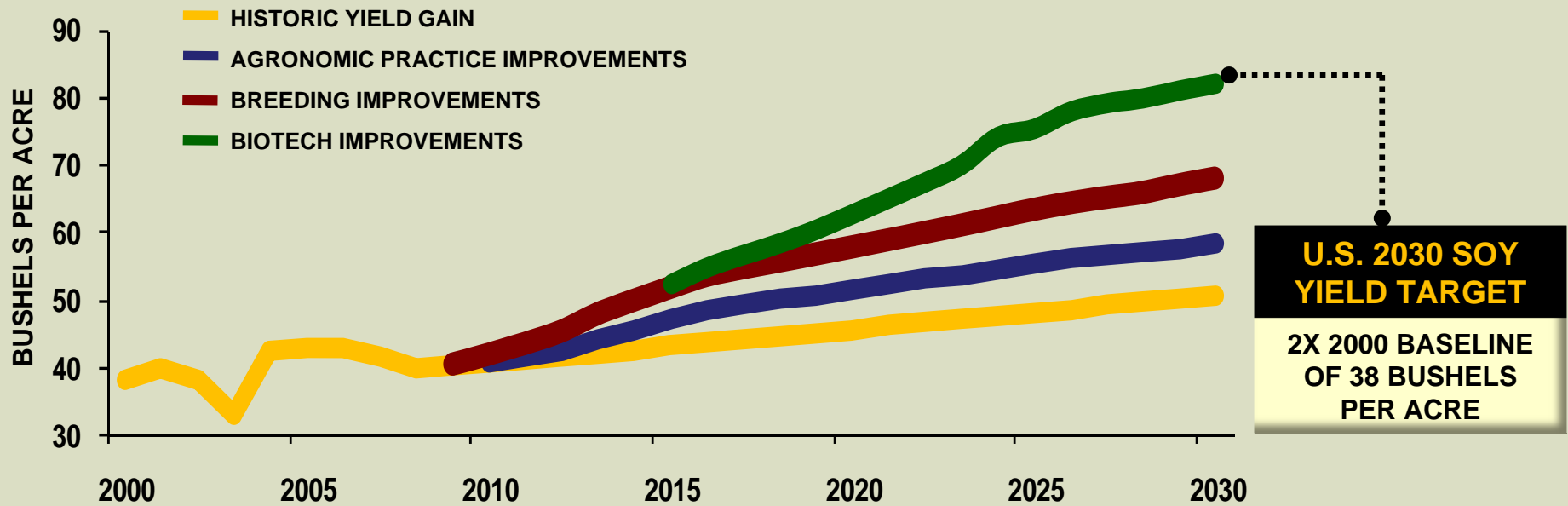


2010 Grower (per acre)		2020 Grower (per acre)		2030 Grower (per acre)	
Yield:	160 bu	Yield:	225 bu	Yield:	300 bu
Gross Revenue:	\$560	Gross Revenue:	\$787	Gross Revenue:	\$1,050

Gross Revenue calculated at \$3.50 per bushel

Monsanto Innovation Targeted at Helping Farmers Double Yield by 2030, Creating New Grower Value

DOUBLING YIELD WITH TECHNOLOGY U.S. SOY EXAMPLE



2010 Grower (per acre)	
Yield:	43 bu
Gross Revenue:	\$387

2020 Grower (per acre)	
Yield:	60 bu
Gross Revenue:	\$540

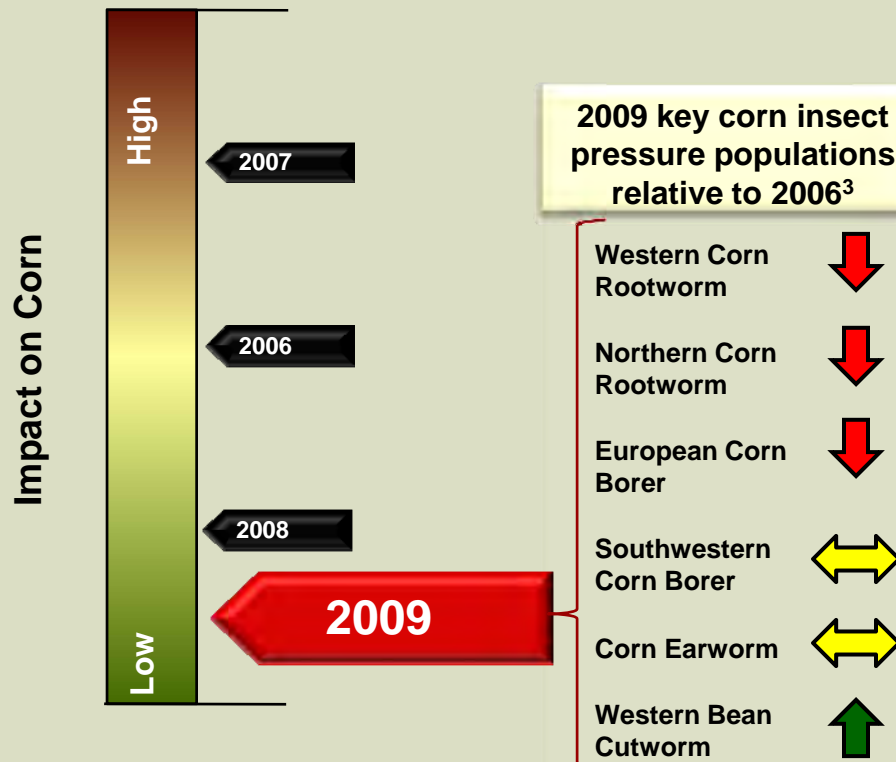
2030 Grower (per acre)	
Yield:	76 bu
Gross Revenue:	\$684

Gross Revenue calculated at \$9.00 per bushel

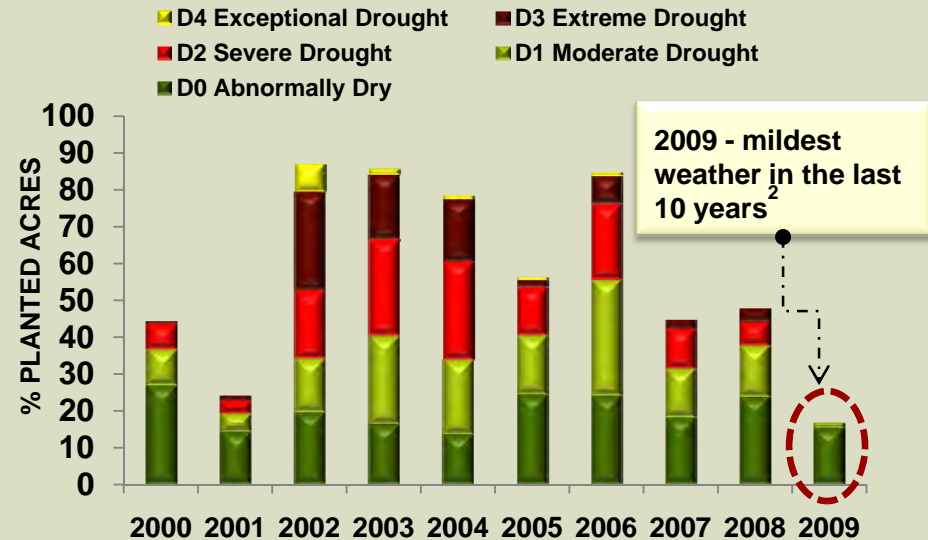
Combination of Limited Insect Pressure and Good Moisture Created Low Stress Conditions on 2009 Corn Crop

FACTOR: RELATIVE U.S. INSECT PRESSURE 2009

Relative Impact of insects and environmental conditions on corn productivity in central corn belt¹



FACTOR: U.S. MOISTURE LEVELS 2000-2009



2009 Low Moisture Stress Drives Low Insect Pressure

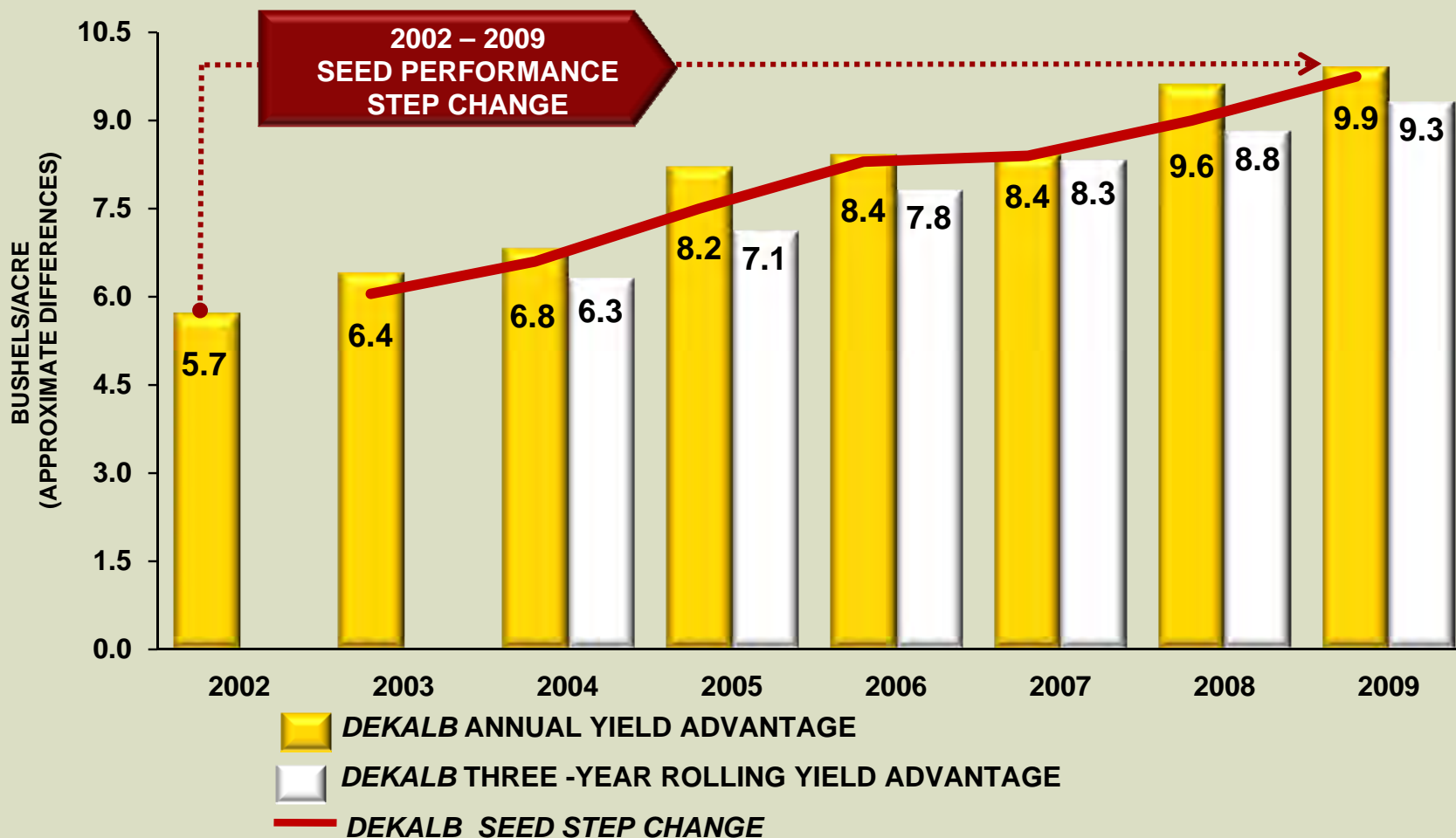
Insect pressure factors in a low moisture stress year:

- Sufficient in-season moisture and mild temperatures reduce potentially negative effects of corn rootworm numbers
- Excessive rainfall and saturated soils may drown larvae and reduce overall corn rootworm numbers

DEKALB Seed Grows Lead Again in 2009, Resulting in Largest Yield Lead Over Competitors This Decade

UPDATED

2009 U.S. COMPETITIVE CORN YIELD COMPARISON: *DEKALB*

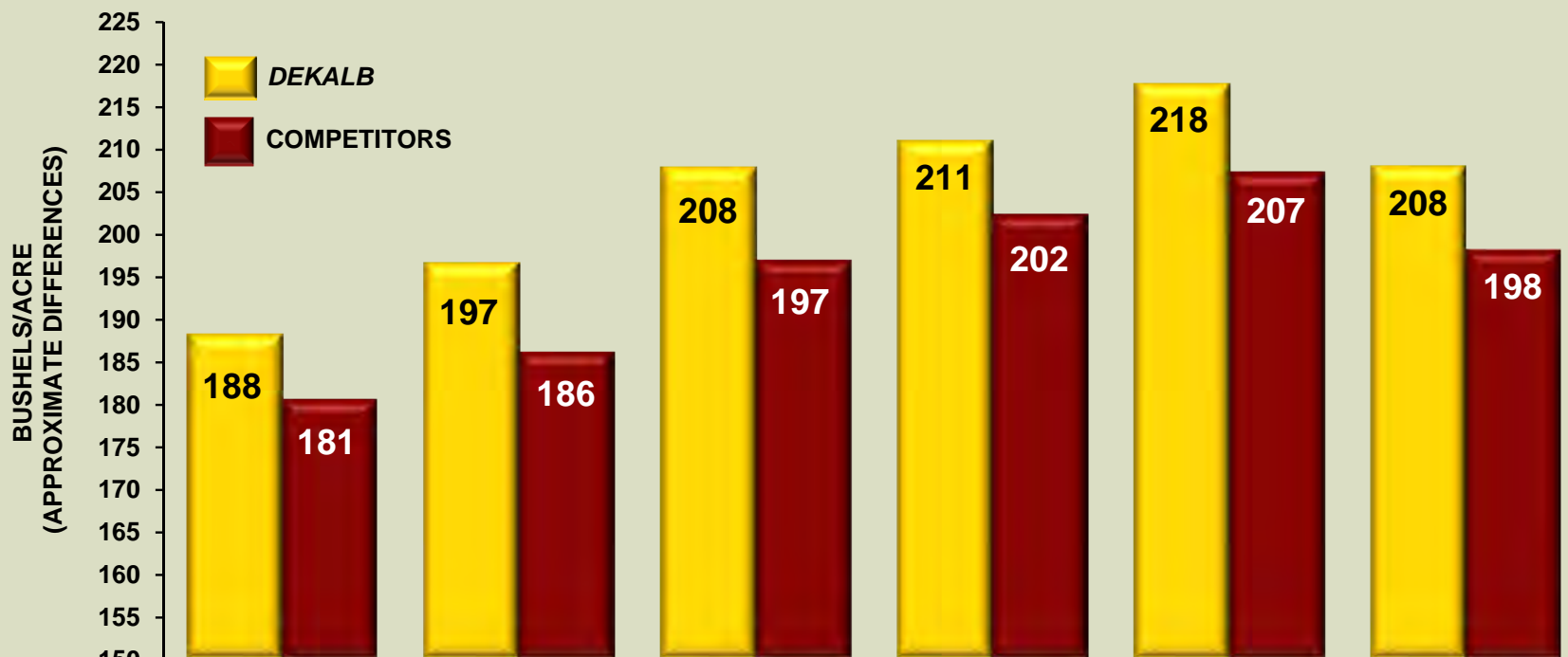


Source: Annual yield advantage calculated each year by comparing leading *DEKALB* volume products within each RM zone to national competitor products containing similar crop protection traits as of December 02, 2009. Weighted average calculated to 15% moisture. >200,000 comparisons represented in the 6 years of rolling averages.

Against All Competitors, *DEKALB* Demonstrates Nearly 10-Bushel Advantage in 2009

UPDATED

2009 COMPARISON: *DEKALB* VS. ALL COMPETITORS



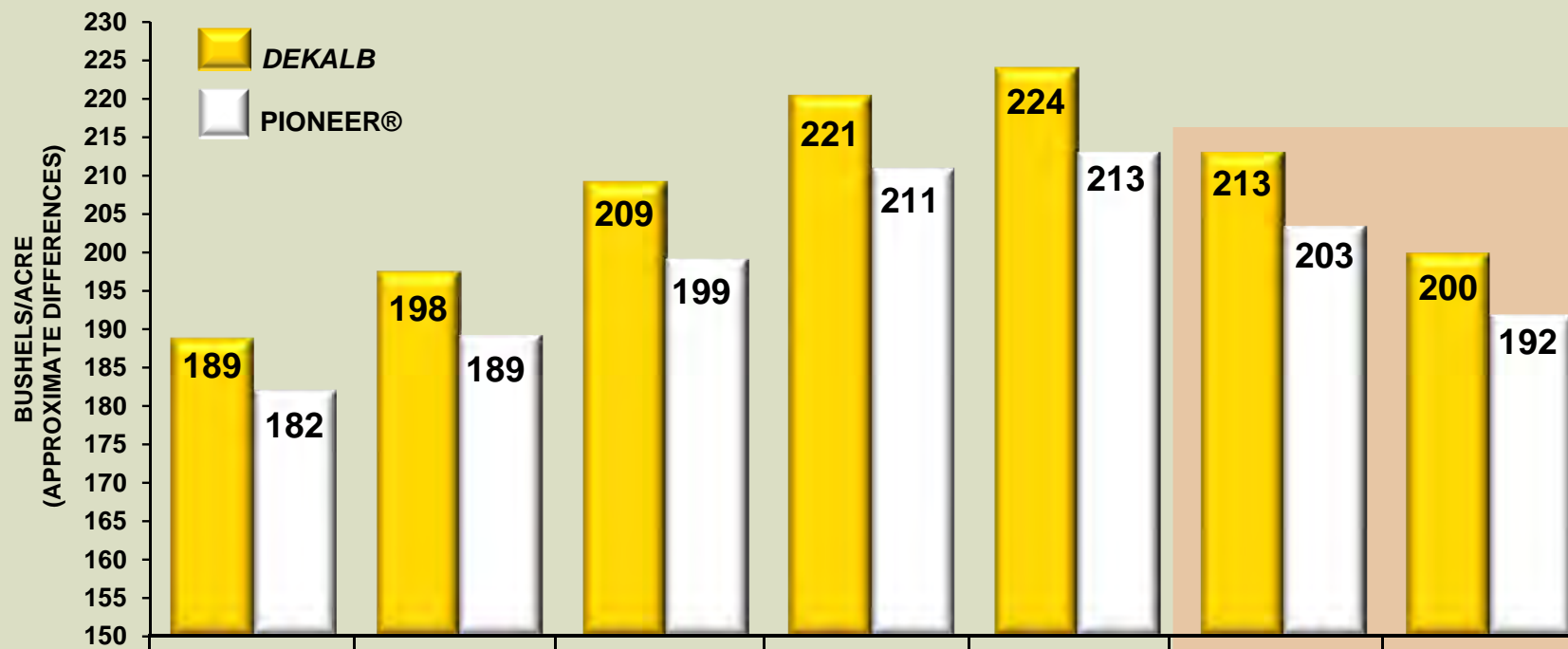
RELATIVE MATURITIES (DAYS)	90/95 RM	100 RM	105 RM	110 RM	115 RM	Overall
COMPARISONS:	>380	>1,480	>1,220	>2,040	>1,920	>7,050
APPROXIMATE BU/AC ADVANTAGE:	7.8	10.5	11.0	8.7	10.4	9.9

Source: 2009 Monsanto and third party head-to-head comparisons of 5 leading *DEKALB* hybrids within each RM zone to national competitor products containing similar crop protection traits as of December 02, 2009. Weighted average calculated to 15% moisture.

DEKALB Yield Trial Results Demonstrate Expanding Yield Advantage Compared With Pioneer®

UPDATED

2009 COMPARISON: DEKALB VS. PIONEER®



RELATIVE MATURITIES (DAYS)	90/95 RM	100 RM	105 RM	110 RM	115 RM	Overall	3-Yr Avg
COMPARISONS:	>200	>830	>770	>1,080	>1,190	>4,090	>26,720
APPROXIMATE BU/AC ADVANTAGE:	6.8	8.3	10.1	9.5	10.9	9.7	--
3-YR WTD AVERAGE BU/AC ADVANTAGE	7.8	10.1	3.7	10.8	6.0	--	7.9

Source: Preliminary 2009 Monsanto and third party head-to-head comparisons of 5 leading DEKALB hybrids within each RM zone to Pioneer® products containing similar crop protection traits as of December 02, 2009. Weighted average, calculated to 15% moisture.

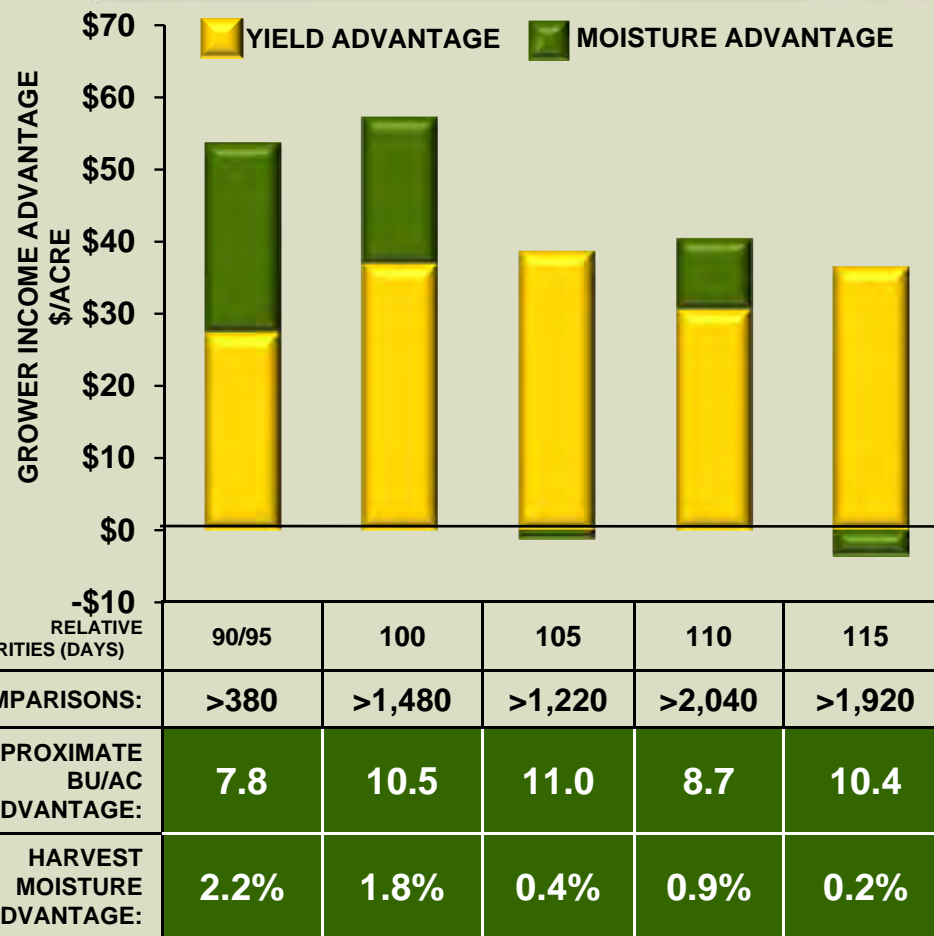
Yield and Dry-Down Advantages of *DEKALB* Combine to Create Real Value On Farm

100 RM FARMER ECONOMICS YIELD TO US DOLLAR

GRAIN MERCHANDISING	DEKALB	Competitor	Advantage
Moisture Adjusted Yield ① (Bu/Ac)	197	186	11
② Corn Price Example:	\$3.50	\$3.50	-
①x②=③ Yield Rev /Ac:	\$690	\$651	\$39
GRAIN HANDLING			
④ Moisture above 15% :	7.5	9.3	1.8 pts
⑤ Estimated Drying Cost/Bu :	\$.08	\$.08	-
①x④x⑤=⑥ Total Drying Cost/Ac:	\$118	\$139	\$21
TOTAL REVENUE/ACRE ③-⑥ ADVANTAGE:	\$572	\$512	\$60

Yield advantage calculated from 2009 commercial data comparing leading commercially available *DEKALB* and competitor hybrids sold in corresponding geographies. Weighted average calculated to 15 percent moisture. All hybrids are *YieldGard VT Triple* versus competitor "triple" traits. Data as of 12-02-09.

2009 U.S. COMPETITIVE CORN YIELD AND MOISTURE ADVANTAGE: *DEKALB* TRIPLES



Source – 2009 Monsanto and third party head-to-head comparisons of 5 leading *DEKALB* brands within each RM Zone to national competitor products containing similar crop protection traits as of December 02, 2009. Drying cost based on \$0.08/bu per point of moisture and corn price calculated at \$3.50/bu.

Genuity SmartStax Represents Game-Changing Technology and Establishes Corn Platform

SEED VALUE PROPOSITION:

- Whole-Farm Yield Improvement
- Reduced Refuge Yield
- Broader Insect Control Yield
- Improved Genetics
- Convenience and Risk Management
- Insecticide Cost Savings
- Better Seed Treatment Protection

2010F ACRES:

U.S Acre Opportunity: 50-65 M

Planned Launch Acres: 4M+

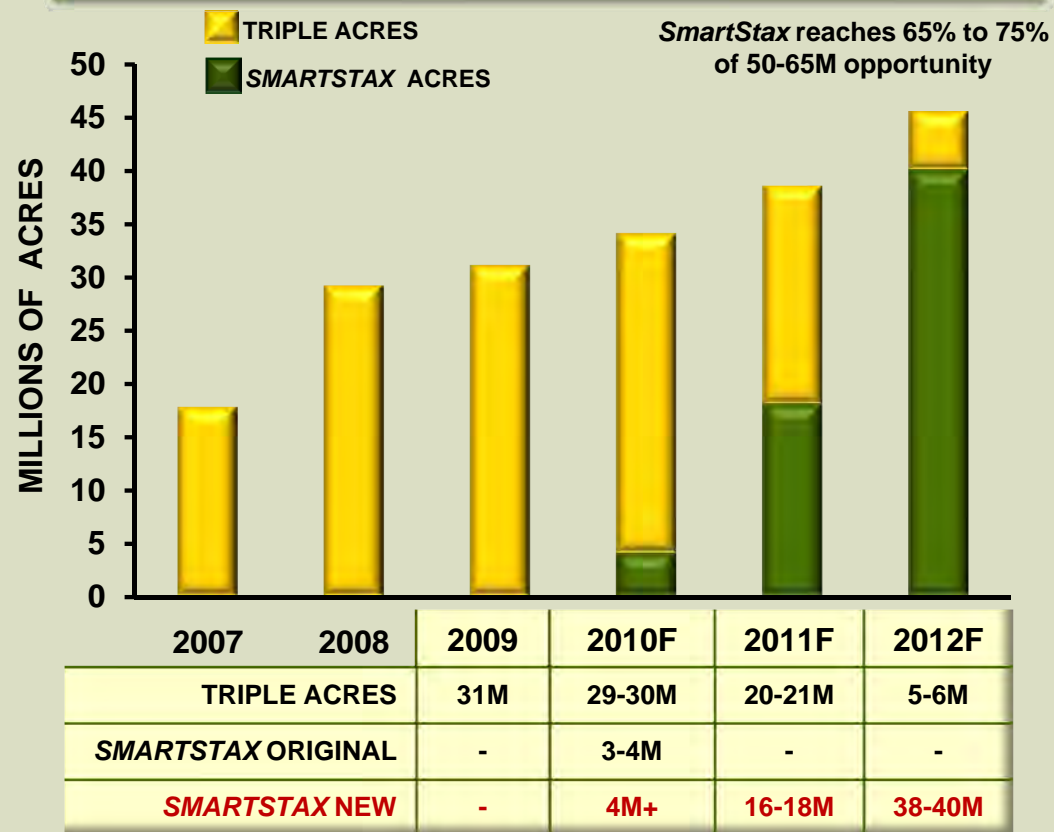
2010 OUTLOOK:

- *SmartStax* expected to be largest corn trait launch ever
- RIB concept with 5 percent refuge to be submitted for regulatory approvals by year end

SmartStax creates platform for Yield and Stress launches

SMARTSTAX

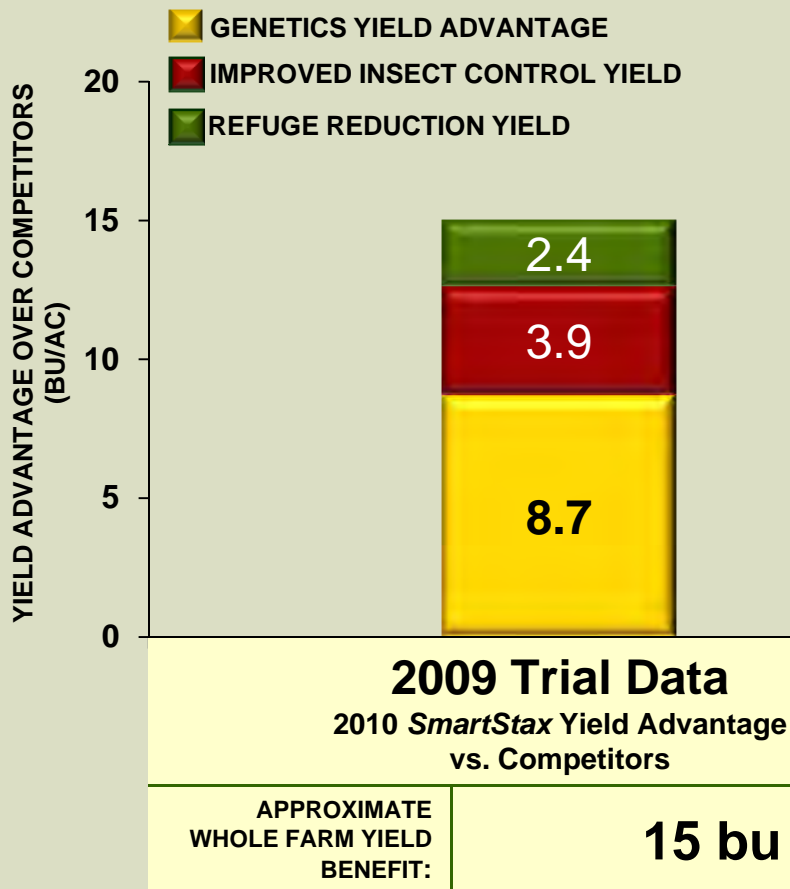
ACCELERATED PENETRATION OF SMARTSTAX OPPORTUNITY



Genuity SmartStax is the Highest Yielding Corn Product Available

UPDATED

SMARTSTAX VS. COMPETITORS



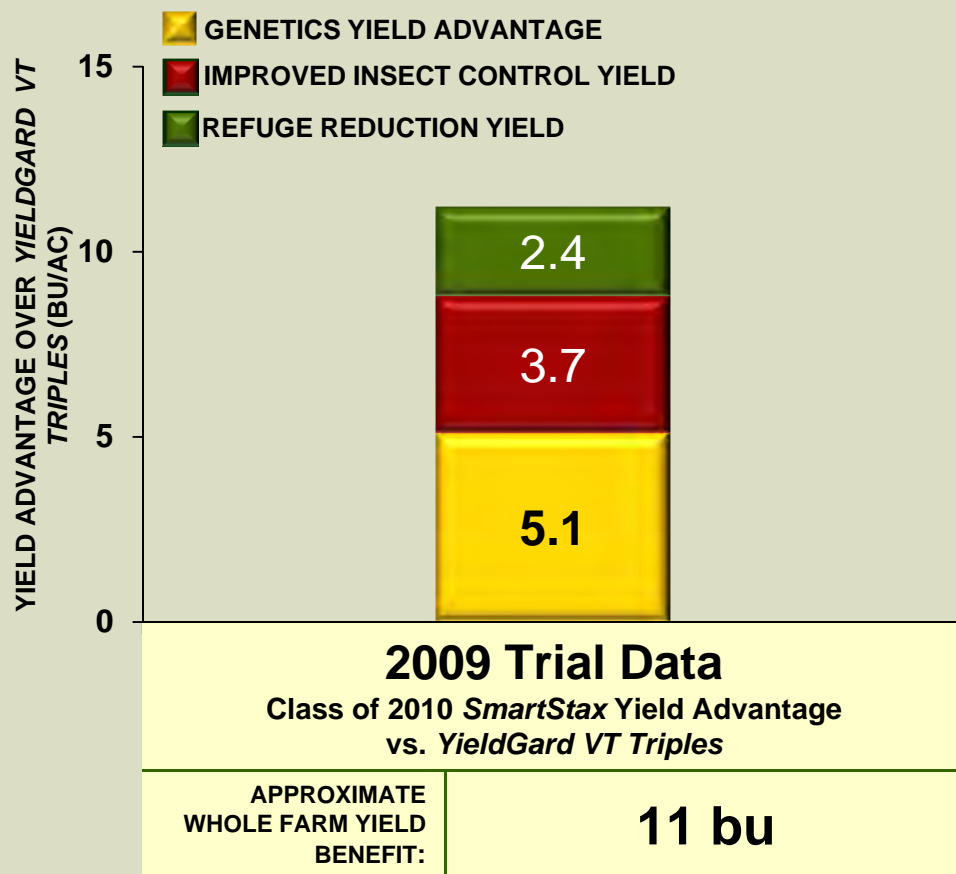
<i>SmartStax</i> Versus Competitors' Triple: Farmer Purchasing Lens at \$3.50 Corn			
	Yield (bu/ac)	Value (\$/ac)	
Better Seed Yield Value	2009	High Stress Potential ⁴	
• Broadest Insect Control ¹	3.9	6.0	\$14- \$21
• Refuge Reduction Yield ²	2.4	3.9	\$8 - \$14
• Better Genetics Yield ³	8.7	8.7	\$30
Convenience + Indirect Value⁵	-	-	\$5
Insecticide Replacement Benefit on Refuge Acres⁵: (\$18/Ac * 15%)	-	-	\$3
Total Whole Farm Improvement:	~15	~19	\$60- \$73
Return on Investment (Based on <i>SmartStax</i> DEKALB seed premium estimate of \$37/ac vs. leading competitors)	ROI: 60% - 95%		

1. Results from 2009 trials with observed insect pressure; 2. Results from 2009 Monsanto trials, *Roundup Ready* isoline refuge hybrid with soil applied insecticide average 15.8 bushel yield loss compared to *SmartStax* hybrid in > 200 comparisons; 2.4 bushel advantage is calculated by multiplying the 15.8 bushel average by the 15 pts per acre gain from refuge reduction; 3. Germplasm performance from 2009 Monsanto and third-party trials comparing 2010 base genetics of *SmartStax* hybrids; Approximately 2,000 head-to-head comparisons with competitors like-traited hybrids +/- 3 RM, weighted average calculated to 15% moisture; 4. Potential yield benefit example estimates. Broadest insect control advantage is based on Monsanto internal estimates for high insect pressure and damage environments. Refuge reduction yield based on Monsanto historical data 2006-2009 comparing advantage of *YieldGard VT Triple* hybrids to isoline hybrids without insect protection traits across key corn growing states in high insect-pressure environments; 5. Based on market research data from June 2009 – Market Probe report

Genuity SmartStax Delivers Step Change Versus Triple Stacks Via Refuge Reduction, Better Insect Control and Convenience

UPDATED

SMARTSTAX VS. YIELDGARD VT TRIPLES



SmartStax Versus YieldGard VT Triple: Farmer Purchasing Lens at \$3.50 Corn

	Yield (bu/ac)		Value (\$/ac)
Better Seed Yield Value	2009	High Stress Potential ⁴	
• Broadest Insect Control ¹	3.7	6.0	\$13- \$21
• Refuge Reduction Yield ²	2.4	3.9	\$8 - \$14
• Better Genetics Yield ³	5.1	5.1	\$18
Convenience + Indirect Value⁵	-	-	\$5
Insecticide Replacement Benefit on Refuge Acres⁵: (\$18/Ac * 15%)	-	-	\$3
Total Whole Farm Improvement:	~11	~15	\$47- \$61
Return on Investment (Based on SmartStax DEKALB Seed premium of \$23/ac vs. VT Triples)	ROI: 105% - 165%		

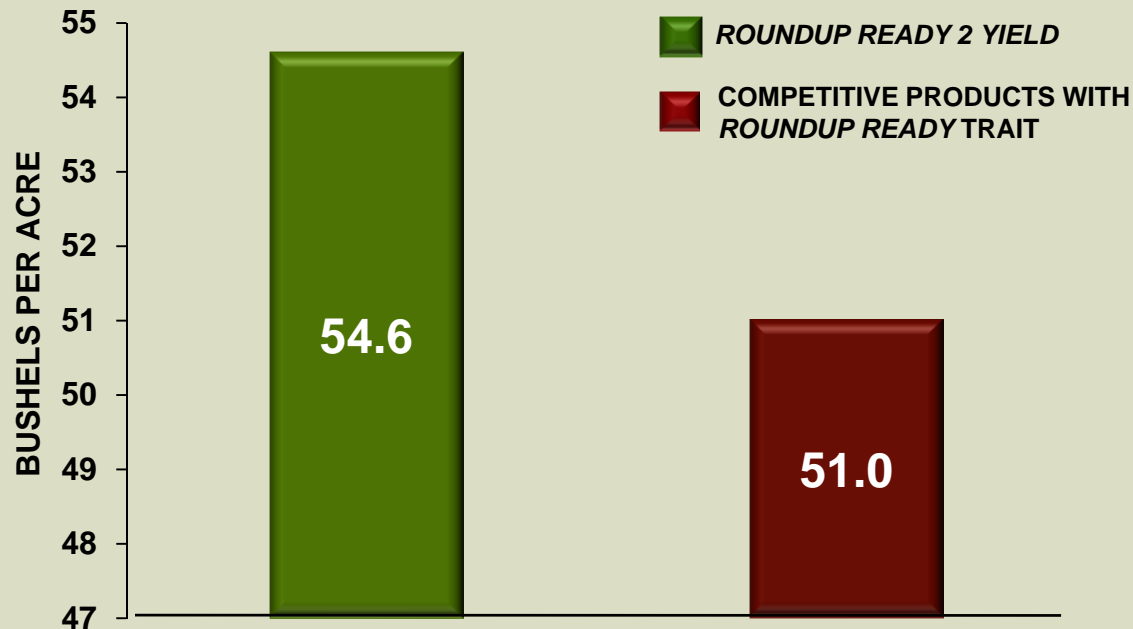
1. Results from 2009 Monsanto trials with observed insect pressure; 2. Results from 2009 Monsanto trials, *Roundup Ready* isoline refuge hybrid with soil applied insecticide average 15.8 bushel yield loss compared to *SmartStax* hybrid in > 200 comparisons; 2.4 bushel advantage is calculated by multiplying 15.8 bushel average by the 15 pts gain from refuge reduction; 3. Germplasm performance from 2009 Monsanto and third-party trials comparing 2010 base genetics of *SmartStax* hybrids compared with current *VT triple* hybrids being replaced by new *SmartStax* hybrids, over 400 head-to-head comparisons; New *SmartStax DEKALB* hybrids will represent approximately 40% of its 2010 expected volume; 4. Broadest insect control advantage is based on Monsanto internal estimates for high insect pressure and damage environments. Refuge reduction yield based on Monsanto historical data 2006-2009 comparing advantage of *YieldGard VT Triple* hybrids to isoline hybrids without insect protection traits across key corn growing states in high insect-pressure environments; 5. Based on market research data from June 2009 – Market Probe report

Updated Yield Data Confirms: *Genuity Roundup Ready 2 Yield* Delivers

UPDATED

***Roundup Ready 2 Yield* 2009 Trials Combine For 7+ Percent Over Competitive Products *Roundup Ready* in Three-Year Summary**

Three year summary (2007-2009) of head to head comparisons between *Roundup Ready 2 Yield* products versus national competitive *Roundup Ready* products, updated as of November 21, 2009. Class of 2009 data is represented in all 3 years, which includes commercially available varieties planted in 2009. Class of 2010 is represented in crop years 2008 and 2009.



RELATIVE MATURITIES	1 – 4
COMPARISONS:	>40,000
APPROXIMATE BU/AC ADVANTAGE FOR <i>ROUNDUP READY 2 YIELD</i> :	3.6
PERCENT YIELD ADVANTAGE FOR <i>ROUNDUP READY 2 YIELD</i> ¹ :	7.1%

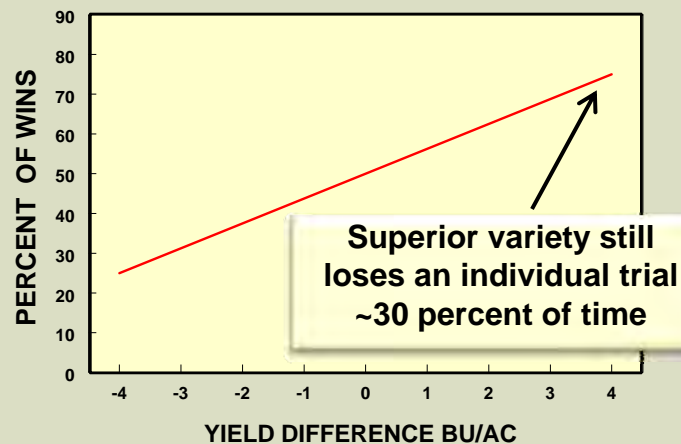
Source: Includes all breeding and commercial strip trial data. 2009 data includes maturity groups 1, 2, 3 and 4. Data is weighted equally by year.

Genetics and Environment Drive Individual Plot Performance: Relevance Driven by Volume of Comparisons

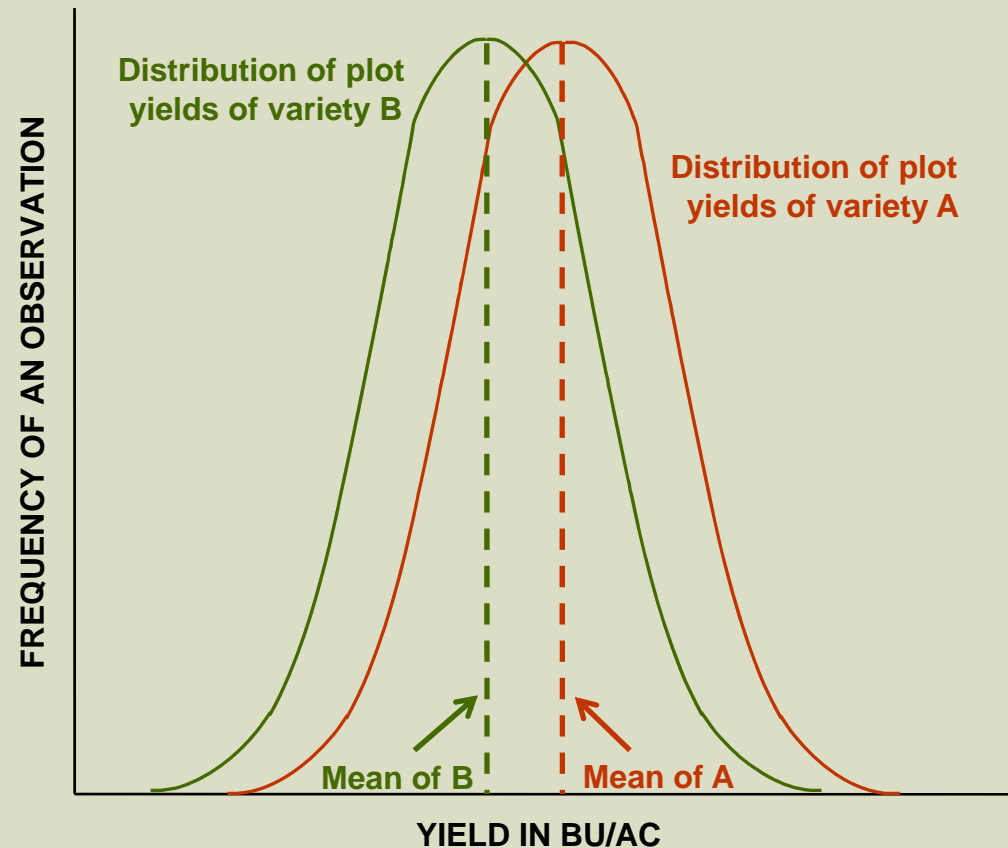
STATISTICAL RELEVANCY

- Minimum thirty head-to-head trials to determine difference
- Industry leaders only win 60-to-65 percent
- Numerous variables affect probability

SOYBEAN WIN RATES




PLOT YIELD DISTRIBUTION



In any individual plot, stronger varieties can be out-yielded.

F.I.R.S.T. Trials Confirm *Genuity Roundup Ready 2 Yield* Advantage Across Geographic Spectrum

 F.I.R.S.T.[®] Farmer's Independent Research of Seed Technologies	Average Yield ²	Count
<i>Roundup Ready</i>	52.4	1,537
<i>Genuity Roundup Ready 2 Yield</i>	55.7	1,520

(# of Locations: 75)

Genuity Roundup Ready 2 Yield
Highest yield at 55/75 locations¹
73% Win Rate

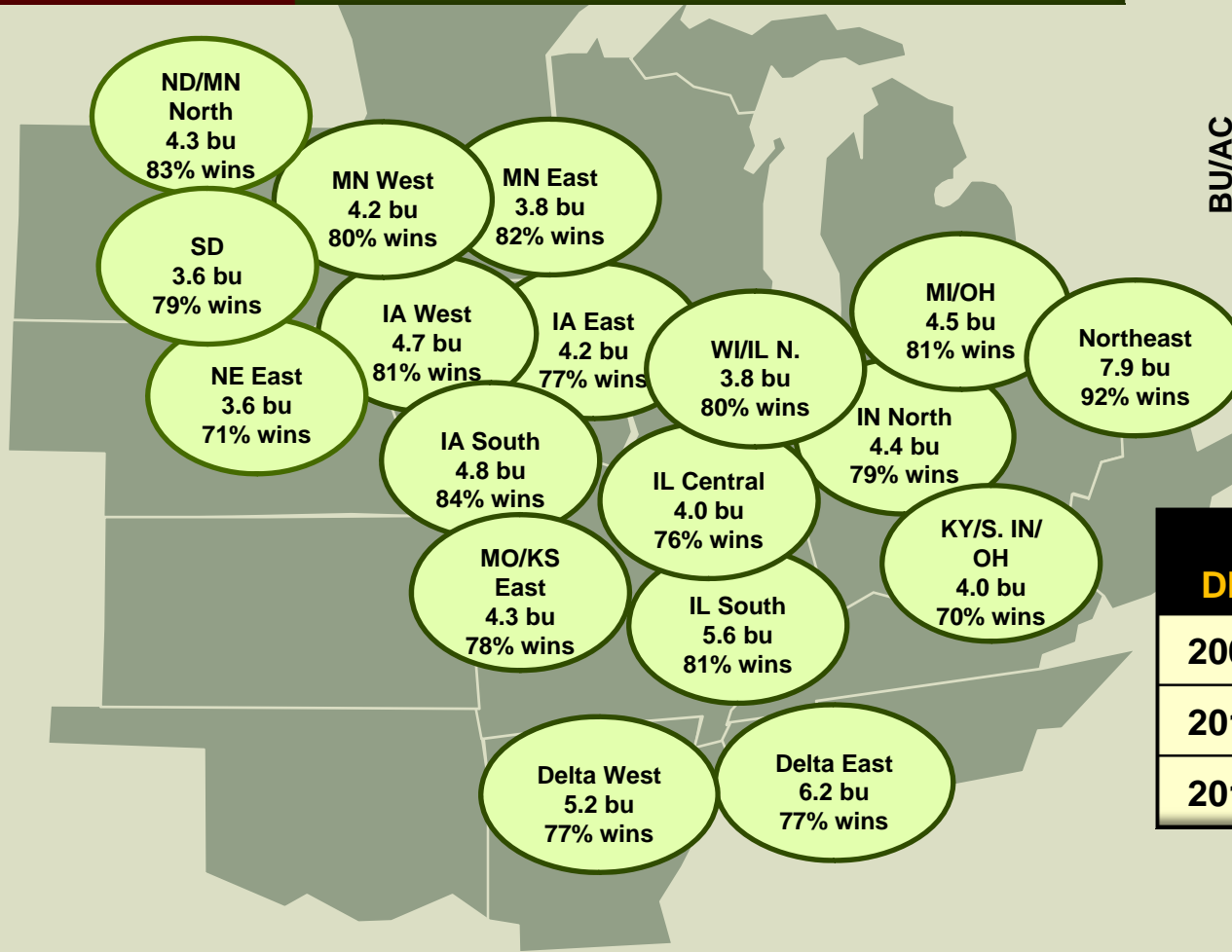
1. Data as of November 30, 2009. A *Roundup Ready 2 Yield* variety had the highest yield at 55 out of 75 F.I.R.S.T. trial locations.

2. Average yield of all *Roundup Ready* and *Roundup Ready 2 Yield* entries across 75 trial locations.

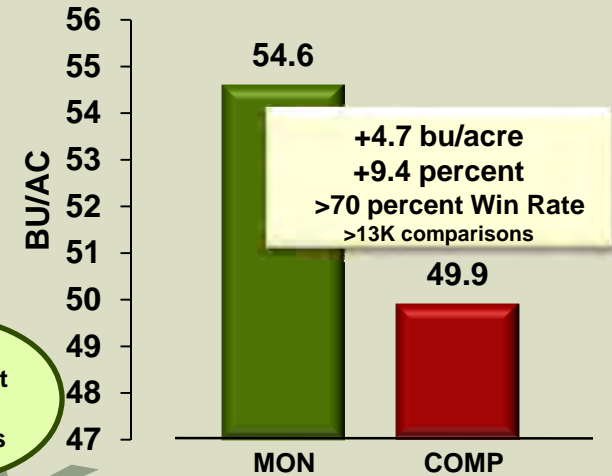
Class of 2010 *Genuity Roundup Ready 2 Yield* Advancements Deliver Outstanding Results

UPDATED

GEOGRAPHIC BREAK-DOWN: *ROUNDUP READY 2 YIELD*



Advancement Class of 2010¹



GENETIC BANDWIDTH AND DIVERSITY EXPANDS RAPIDLY

2009	<15 varieties
2010	>125 candidate varieties
2011	>1200 candidate varieties

1. Class of 2010 advancements represents *Roundup Ready 2 Yield* varieties to be deployed in their projected sales geographies. Comparisons are between Class of 2010 versus national competitive *Roundup Ready* products as of Nov. 21, 2009.

Strong Yields Continue Germplasm Advantage and Establish *Genuity SmartStax and Genuity Roundup Ready 2 Yield* Platforms

2009 YIELD DATA TAKE-AWAYS

- Corn germplasm leadership expands to 9.9 bu/acre and the 3-yr rolling average grows to 9.3 bu/acre advantage
- *SmartStax* delivers on concept in low-stress year, generating significant farmer ROI and risk mitigation
- *SmartStax* RIB submission on track
- *Roundup Ready 2 Yield* delivers on 3-yr rolling average of 7%+ yield advantage
- Class of '10 *Roundup Ready 2 Yield* delivers 9.4% yield advantage, with 70%+ wins

Enables continued growth, rapid adoption and platform establishment for *SmartStax* and *Roundup Ready 2 Yield*

SMARTSTAX AND ROUNDUP READY 2 YIELD PENETRATION 2010F-2012F

