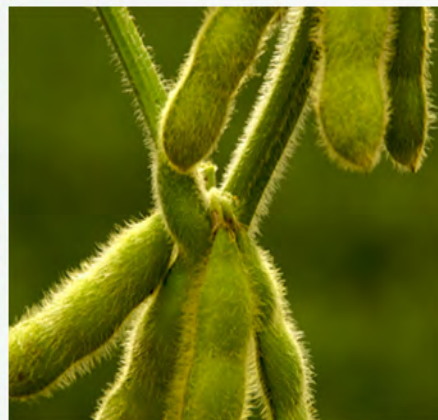


October 6, 2010



FOURTH-QUARTER 2010 FINANCIAL RESULTS

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.

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Non-GAAP Financial Information

This presentation may use the non-GAAP financial measures of “free cash flow,” earnings per share (EPS) on an ongoing basis, EBIT and EBITDA. We define free cash flow as the total of cash flows from operating activities and investing activities. A non-GAAP EPS financial measure, which we refer to as ongoing EPS, excludes certain after-tax items that we do not consider part of ongoing operations, which are identified in the reconciliation. EBIT is defined as earnings (loss) before interest and taxes and EBITDA is defined as earnings (loss) before interest, taxes, depreciation and amortization, as defined in the reconciliation. Earnings (loss) is intended to mean net income (loss) attributable to Monsanto Company as presented in the Statements of Consolidated Operations under GAAP. Our presentation of non-GAAP financial measures is intended to supplement investors’ understanding of our operating performance, not replace net income (loss) attributable to Monsanto Company, cash flows, financial position, or comprehensive income (loss), as determined in accordance with GAAP. Furthermore, these non-GAAP financial measures may not be comparable to similar measures used by other companies. The non-GAAP financial measures used in this presentation are reconciled to the most directly comparable financial measures calculated and presented in accordance with GAAP.

FISCAL YEAR:

References to year, or to fiscal year, are on a fiscal year basis and refer to the 12-month period ending August 31.

Fiscal 2010 Fourth-Quarter and Full Year Financial Summary

	FOURTH QUARTER		FULL YEAR	
	2010	2009	2010	2009
NET SALES	\$1,953M	\$1,879M	\$10,502M	\$11,724M
GROSS PROFIT	\$861M	\$857M	\$5,086M	\$6,762M
Seeds & Genomics	\$523M	\$422M	\$4,538M	\$4,504M
Ag Productivity	\$338M	\$435M	\$548M	\$2,258M
SG&A Expense	\$564M	\$461M	\$2,064M	\$2,037M
R&D Expense	\$357M	\$286M	\$1,205M	\$1,098M
Net Income <small>ATTRIBUTABLE TO MONSANTO COMPANY</small>	\$(143)M	\$(233)M	\$1,109M	\$2,109M
DILUTED EPS AS-REPORTED	\$(0.26)	\$(0.43)	\$2.01	\$3.80
DILUTED EPS ONGOING BASIS	\$(0.09)	\$0.02	\$2.41	\$4.41
FREE CASH FLOW			\$564M	\$1,523M

U.S. Harvest Ahead of Historic Pace, But Still In Progress; Early Data Shows Yield Advantages in First Products of Reduced-Refuge Family

HARVEST PROGRESS OVERVIEW: YIELD DATA RESULTS FLOW BY CROP AND PRODUCT

SOYBEANS

PRODUCT DATA

- **Genuity Roundup Ready 2 Yield**
Less than 10 percent of expected data available, too early to provide projectable analysis

HARVEST PROGRESS STATUS¹

- According to USDA, 37 percent of corn and 37 percent of soybeans have been harvested
- 2010 Harvest is running ahead of the 5-year average
- Recent rains slowed pace of harvest
- Less than 20 percent of corn acres harvested in key geographies in Northern Corn Belt

U.S. HARVEST

Progressing South to North

START:
Late August

CORN

OVERVIEW

Insect Pressure

Above-ground (earworm) – especially South – differentiates products; Three years of inconsistent below-ground (rootworm) pressure

REDUCED-REFUGE FAMILY OF PRODUCTS

• **Genuity SmartStax**

Critical mass in shorter-maturity Northern geographies, no projectable data from those areas at this point

• **Genuity VT Double PRO**

With approximately 60 percent of data complete:

- **8.1 bu/ac advantage vs. competitive double stacks**

• **Genuity VT Triple PRO**

With greater than 75 percent of data complete from Southern and South Central Corn Belt:

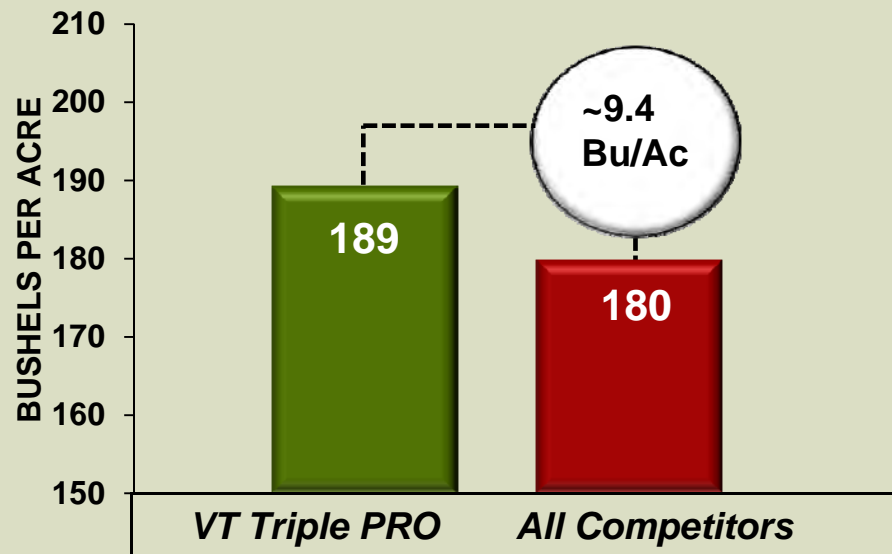
- **9.4 bu/ac advantage vs. competitive triple stacks**

¹USDA Crop Progress Report: <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1048>

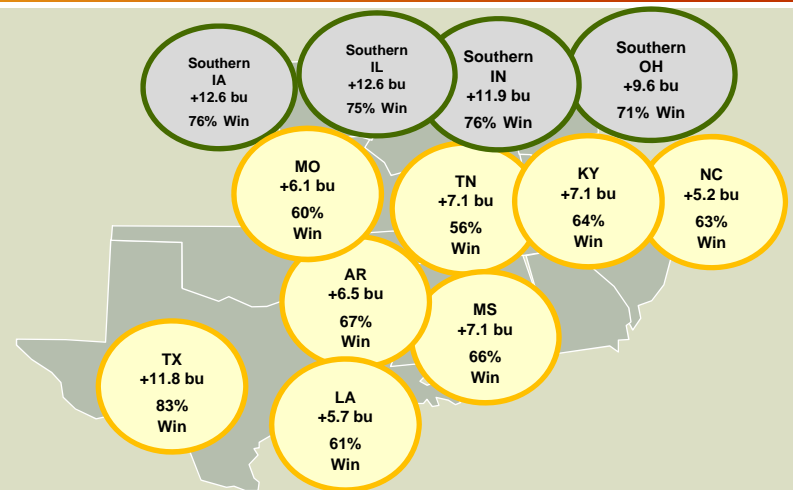
Genuity VT Triple PRO Delivering Superior Results and Establishing Itself in the South and the South Central Corn Belt

UPDATE: 2010 Comparison
VT Triple PRO vs. All Competitors

Percent of Expected Data: >75%



COMPARISONS:	>8,700
WIN RATE:	69.9%



HARVEST SUMMARY:

- Shift in longer maturity performance in South offering farmers a reduced-refuge differentiated product
- Strong results in the south central Corn Belt validating portfolio product approach
- Corn earworm pressure significant issue, especially in South

PERFORMANCE DRIVERS:

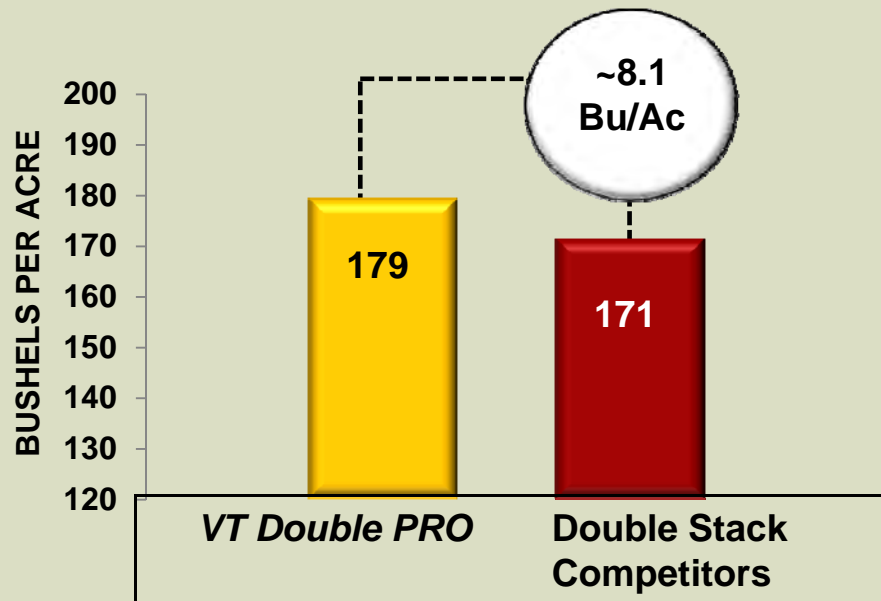
- ① Dual modes of action provides greater insect control
- ② Breeding advancements paying off with newest class of genetics demonstrating a true advantage
- ③ Reduced refuge in the South from 50 percent to 20 percent creates incremental whole-farm yield opportunity

Preliminary Field Trial Results for *Genuity VT Double PRO* Showing Strong Results

PRELIMINARY:

2010 Comparison *VT Double PRO* vs. **All Competitors**

Percent of Expected: Approximately 60%



COMPARISONS: >900

WIN RATE: 66%

HARVEST SUMMARY:

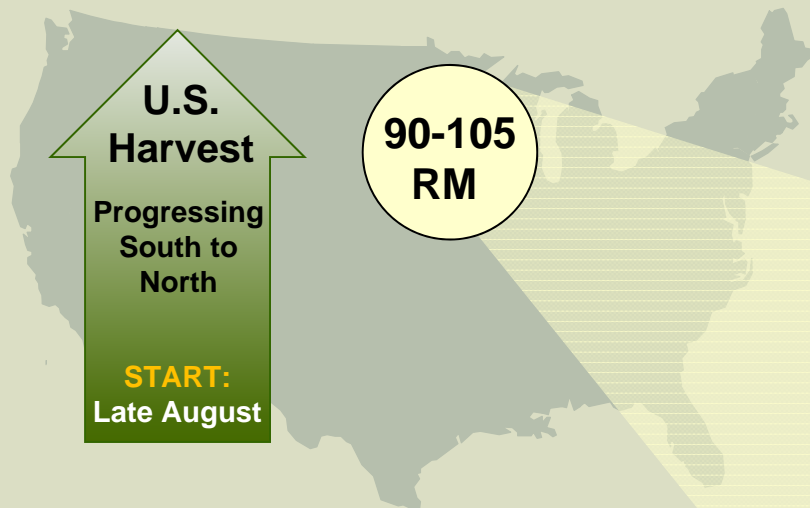
- Preliminary results demonstrate value of the first-ever double-stack with 5 percent refuge
- Field trials from regions where corn rootworm is less prevalent
- Corn earworm pressure a significant issue

PERFORMANCE DRIVERS:

- ① Dual modes of action provides greater insect control
- ② Breeding advancements paying off with newest class of genetics demonstrating a true advantage
- ③ Reduced refuge in the Corn Belt from 20 percent to 5 percent creates incremental whole-farm yield opportunity

Genuity SmartStax Priced to Deliver Farmers Refuge Reduction in 2011 and Create Refuge-In-the-Bag Opportunity in 2012

HARVEST PROGRESS OVERVIEW: YIELD DATA RESULTS FLOW BY CROP AND PRODUCT



HARVEST PROGRESS STATUS¹

- According to USDA, 37 percent of corn and 37 percent of soybeans have been harvested
- 2010 Harvest is running ahead of 5-year average
- Rain slowed pace of harvest
- **Less than 20 percent of corn acres harvested in key geographies in Northern Corn Belt**

REDUCED-REFUGE FAMILY OF PRODUCTS

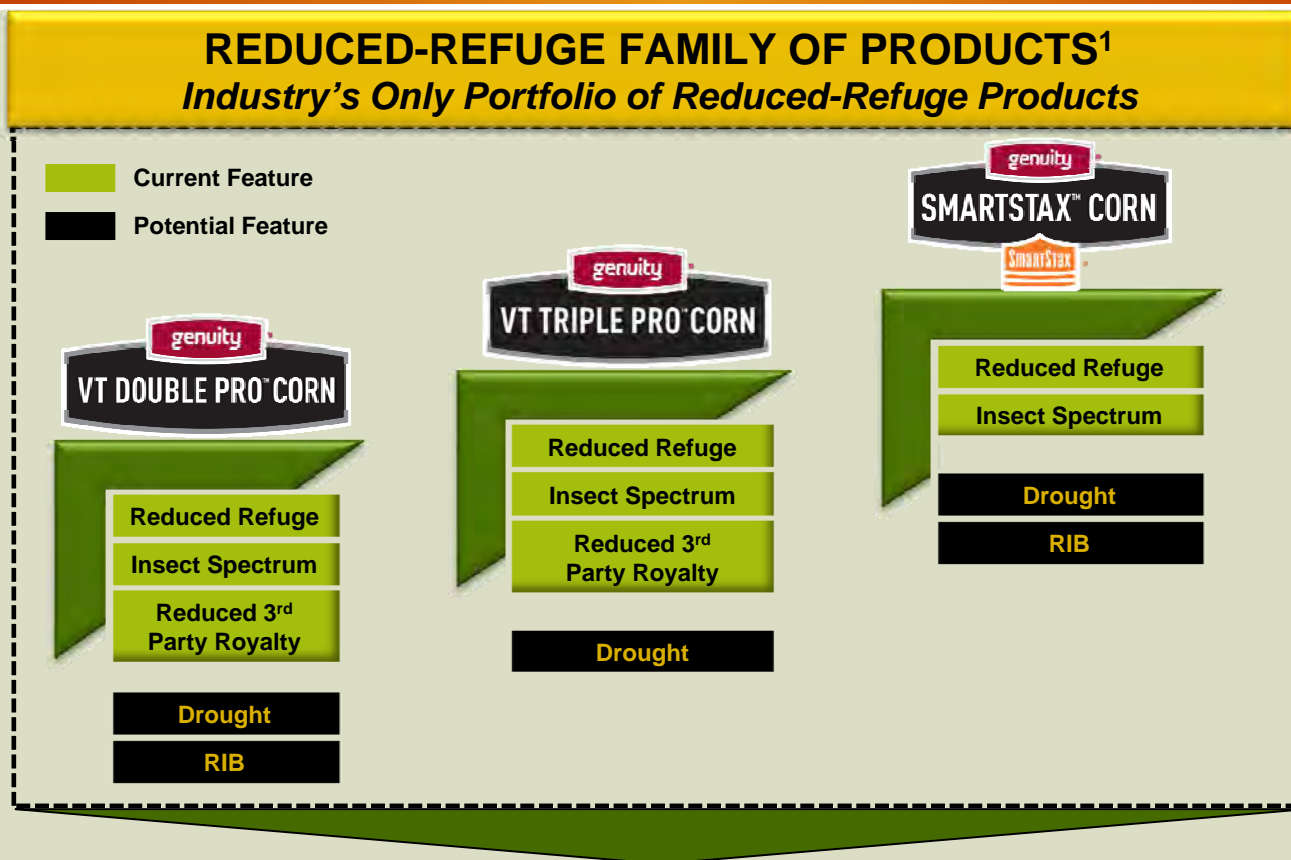
- *Genuity VT Triple PRO*
- *Genuity VT Double PRO*

• *Genuity SmartStax*

- To date, roughly 15 percent of the total expected *SmartStax* data is complete
- **Critical mass of *SmartStax* hybrids in 90-105-day RM areas**
- Broader portfolio available in early relative maturity hybrids vs. longer-maturity areas harvested to date
- **Price premium reflects value delivered by refuge reduction and set up for Refuge-In-the-Bag (RIB)**
- Pricing strategy in 2011 focuses on delivering direct benefit of refuge reduction, with whole-farm yield benefit as farmers can use broad-trait protection on more acres

¹USDA Crop Progress Report: <http://usda.mannlib.cornell.deu/MannUsda/viewDocumentInfo.do?documentIT=1048>
RM=Relative Maturity Days

Reduced-Refuge Family of Products – Industry’s First Single-Bag Five Percent Refuge Solution Enhancement Expected in 2012



RIB Complete²
Next Game Changer on Farm




- Expected to be industry’s first single-bag solution
- Refuge reduction to 5 percent in the Corn Belt – without a structured refuge
- EPA’s Scientific Advisory Panel review in December – Lines up well for 2012 introduction

¹Required refuge varies by geography. Refer to the IRM guide for details and always follow IRM requirements. Commercialization is dependent on many factors, including successful conclusion of the regulatory process. ²Pending EPA approval

FY2011 Guidance Reflects Mid-Teens Earnings Growth

2011 GUIDANCE

P&L CATEGORIES

SEEDS AND GENOMICS
GROSS PROFIT:

\$5.1B-\$5.2B

AG PRODUCTIVITY
GROSS PROFIT:

\$550M-\$600M

SG&A:

\$2.06B-\$2.16B

R&D:

\$1.25B-\$1.3B

TAX RATE:

30% to 32%

FISCAL 2011
ONGOING EPS:

\$2.72-\$2.82

FREE CASH FLOW CATEGORIES

CAPITAL
EXPENDITURES:

\$600M-\$700M

DEPRECIATION AND
AMORTIZATION:

~\$650M

FREE CASH FLOW:

\$800M-\$900M

SEEDS AND GENOMICS GROSS PROFIT

DRIVER

OUTLOOK

CORN

- U.S. branded corn margin and GP/acre lift on mix and improved cost
- *Genuity SmartStax* pricing reflects trial-use pricing strategy
- Reduced-refuge family of products grows to mid-teens million acres
- Steady growth in corn ex-US with Latin America growing on volume, mix, and penetration

SOYBEANS

- U.S. soy gross profit grows on *Roundup Ready 2 Yield* mix and mid-teens million acres
- Seed treatment now sold independently of seed and trait

COTTON

- Steady growth driven by germplasm mix improvement from classes of 2009, 2010 and 2011 and 2nd generation traits penetration

VEGGIES

- Steady growth improving margins year over year

AG PRODUCTIVITY GROSS PROFIT

DRIVER

OUTLOOK

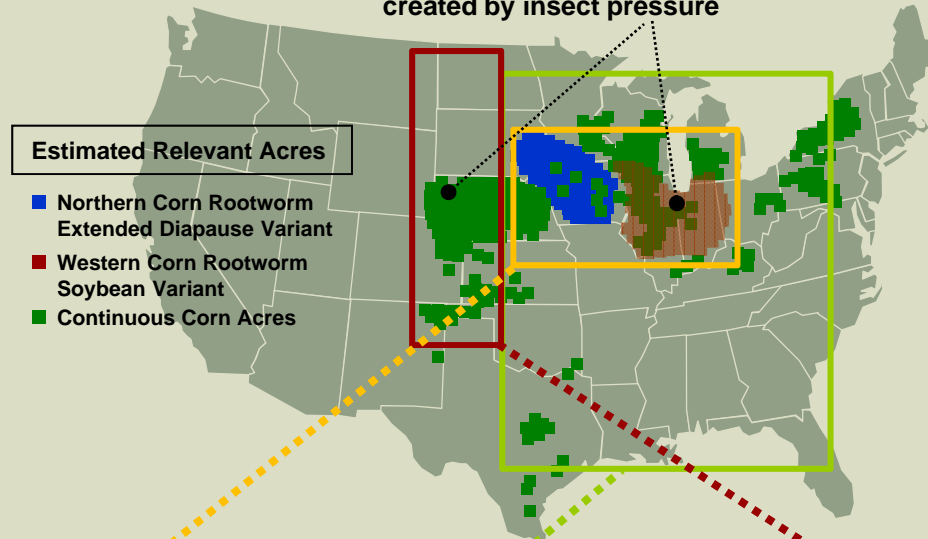
ROUNDUP

- *Roundup* and Other Glyphosate-Based Herbicides Volume: 250M-300M gallons
- Branded NSP: \$8-\$10/gal
- *Roundup* and Other Glyphosate-Based Herbicides Volume GP: \$250M-\$300M
- Other Ag Productivity GP: ~\$300M

U.S. Corn Growth Built on Balanced Approach to Mix and Volume Gains Across Portfolio

U.S. CORN MARKET SEGMENTATION

Product strategy and deployment reflect needs created by insect pressure



Estimated Relevant Acres

- Northern Corn Rootworm Extended Diapause Variant
- Western Corn Rootworm Soybean Variant
- Continuous Corn Acres

Central Corn Belt

ACRES:	40M-50M
AVE. YIELD:	165-300 bu/ac

- Lead product: *Genuity SmartStax*

Surrounding Corn Belt and South

ACRES:	25M-35M
AVE. YIELD:	130-200 bu/ac

- Lead product: *Genuity VT Triple PRO*

Western Corn Belt

ACRES:	10M-20M
AVE. YIELD:	70-130 bu/ac ¹

- Lead product: *Genuity VT Double PRO*

Target: Mid-teens millions of acres for three products in family (*Genuity VT Triple PRO*, *Genuity Double PRO* and *Genuity SmartStax*)

2011 U.S. Corn Growth

Average branded gross-profit-per-acre increases for 2011 portfolio based on mix-and-volume improvement

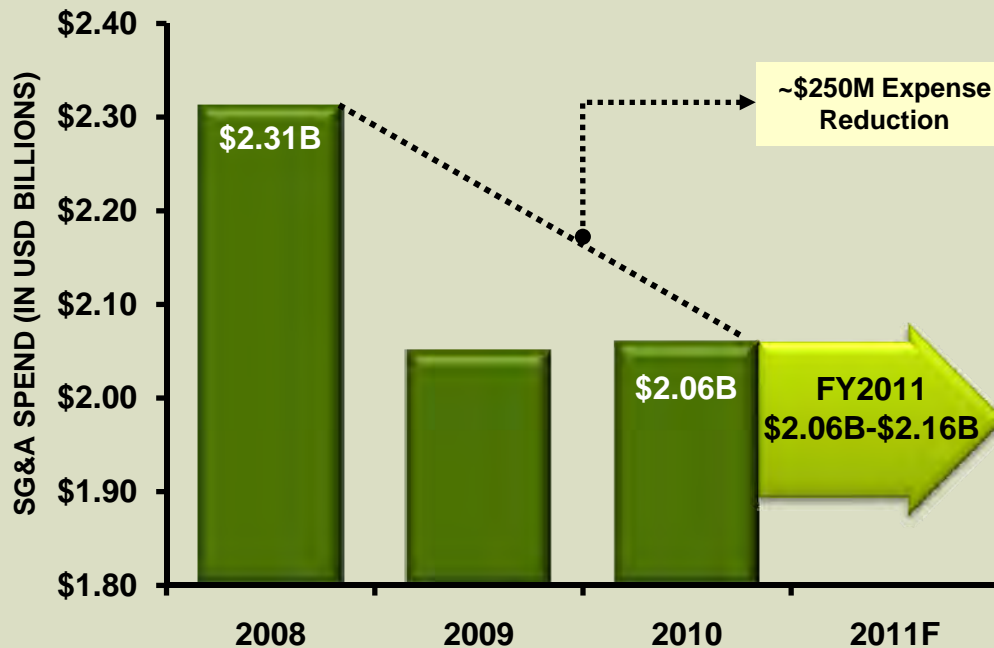
DRIVERS

- **Germplasm Portfolio**
New, higher-performing germplasm replaces older hybrids in product line-up, creating steady upgrade of value across portfolio
- **Trait Growth**
Mid-teens millions of acres for Reduced-Refuge Family of products; Upgrade available on refuge acres
- **Unit Volume Growth**
Across portfolio of trait offerings – including triple-stacks and Reduced-Refuge Family – expect single-digit unit volume growth in Monsanto brands

¹ Non-irrigated acres

Below-the-Line Leverage Created As Benefits From Restructuring Flow Into SG&A

TOTAL COMPANY SG&A SPEND¹ 2008-2011F



OPERATIONAL LEVERAGE

SG&A:

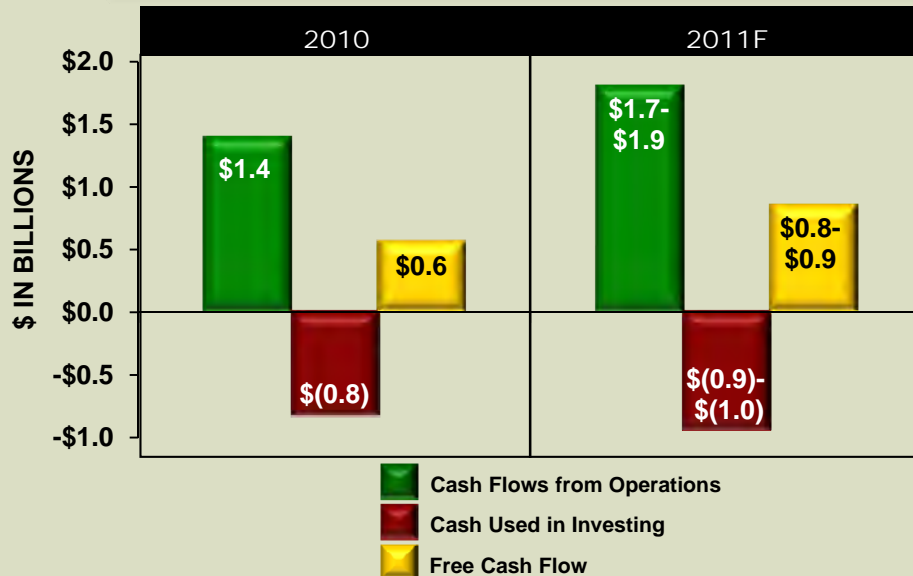
- ▶ **FY10 SG&A Actual:**
 - \$2.06B reflecting realized SG&A savings from restructuring actions
- ▶ **FY11 SG&A Forecast:**
 - Maintain flat to inflation-level growth at \$2.06B-\$2.16B

¹SG&A does not include restructuring charges

Earnings Growth Expected to Translate Into Operating Cash; Free Cash Flow Generation Expected to Remain Substantial

CASH FLOW PROJECTIONS

FY2010 –FY2011F



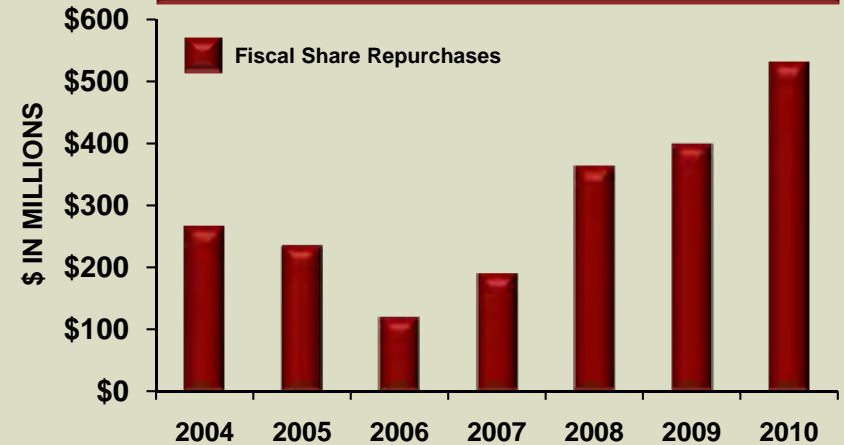
CASH PRIORITIES

FY2011F Free Cash Flow: **\$800M–\$900M**

- ❶ Expand the core through strategic acquisitions
- ❷ Repatriate cash to shareowners through dividends
- ❸ Share repurchases focus remains to offset dilution to preserve shareowner stock value

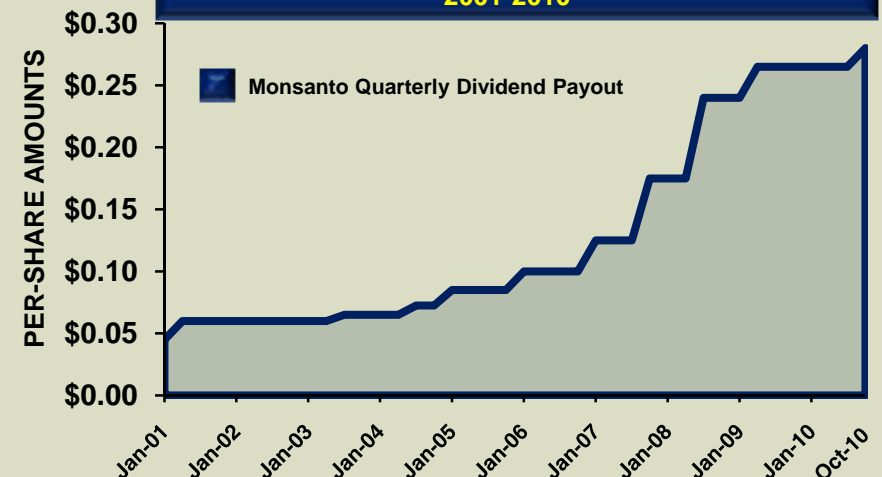
SHARE REPURCHASES

FY2004-FY2010



QUARTERLY DIVIDENDS

2001-2010¹



¹Amounts for record dates from Jan. 1, 2001 – July 7, 2006 adjusted to allow comparison following Monsanto's stock split

Reconciliation of Non-GAAP Financial Measures

RECONCILIATION OF FREE CASH FLOW

\$ Millions	Fiscal Year 2011 Target	Fiscal Year 2010	Fiscal Year 2009
Net Cash Provided (Required) by Operating Activities	\$1,700-\$1,900	\$1,398	\$2,246
Net Cash Provided (Required) by Investing Activities	\$(900-1,000)	\$(834)	\$(723)
Free Cash Flow	\$800-\$900	\$564	\$1,523
Net Cash Provided (Required) by Financing Activities	N/A	\$(1,038)	\$(1,075)
Effect of Exchange Rate Changes on Cash and Cash Equivalents	N/A	\$3	\$(105)
Net Increase (Decrease) in Cash and Cash Equivalents	N/A	\$(471)	\$343

RECONCILIATION OF ONGOING EPS

\$ Per share	Fiscal Year			Fiscal Fourth Quarter	
	2011 Guidance	2010	2009	2010	2009
Diluted Earnings per Share	\$2.67-\$2.77	\$2.01	\$3.80	\$(0.26)	\$(0.43)
Restructuring Charges, Net	\$0.05	\$0.41	\$0.52	\$0.17	\$0.53
Sunflower Divestiture			\$(0.08)		\$(0.08)
Income on Discontinued Operations		\$(0.01)	\$(0.02)		
In-Process R&D Write-off Related to the Aly Participacoes Ltda. Acquisition			\$0.19		
Diluted Earnings per Share from Ongoing Business	\$2.72-\$2.82	\$2.41	\$4.41	\$(0.09)	\$0.02