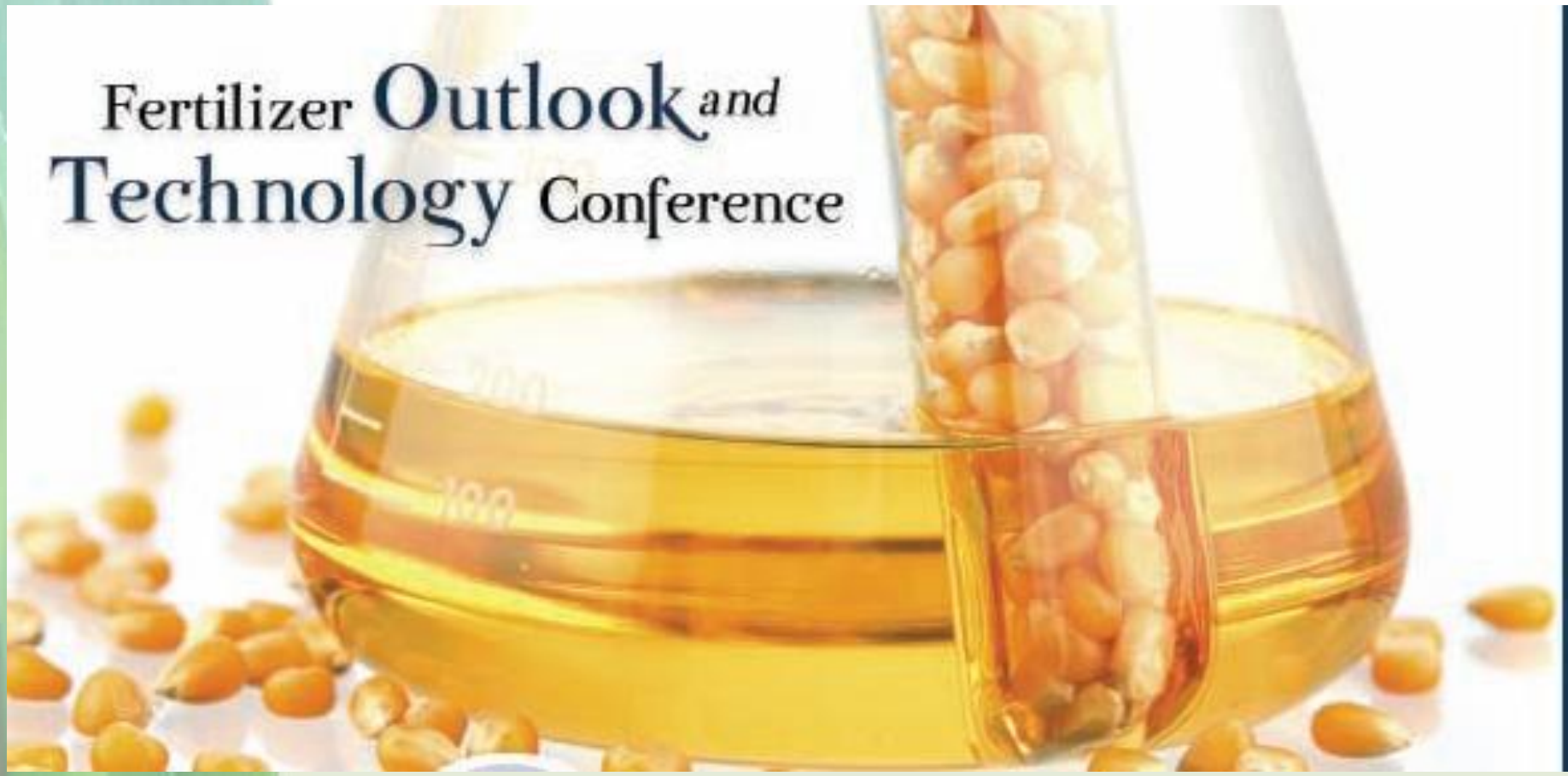

Rick Tolman, CEO
National Corn Growers Association

Horology – The Art and Science of Timekeeping

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FROM THE MOON TO MARS
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WHAT ARE YOU MADE OF ?
TIGER WOODS


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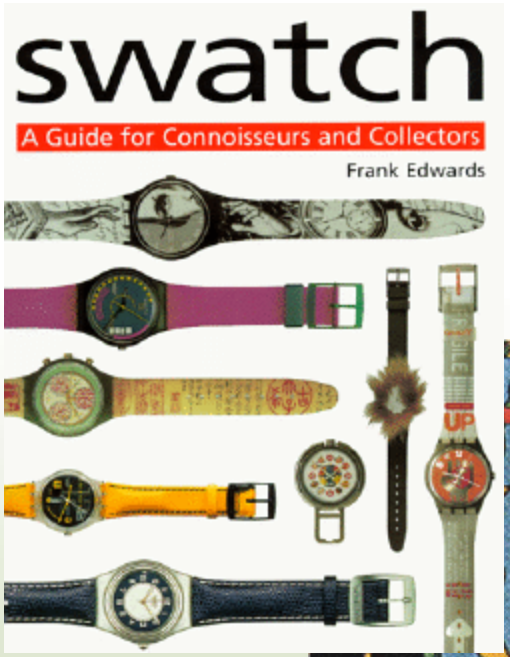
swatch
A Guide for Connoisseurs and Collectors
Frank Edwards


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1991
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Change……

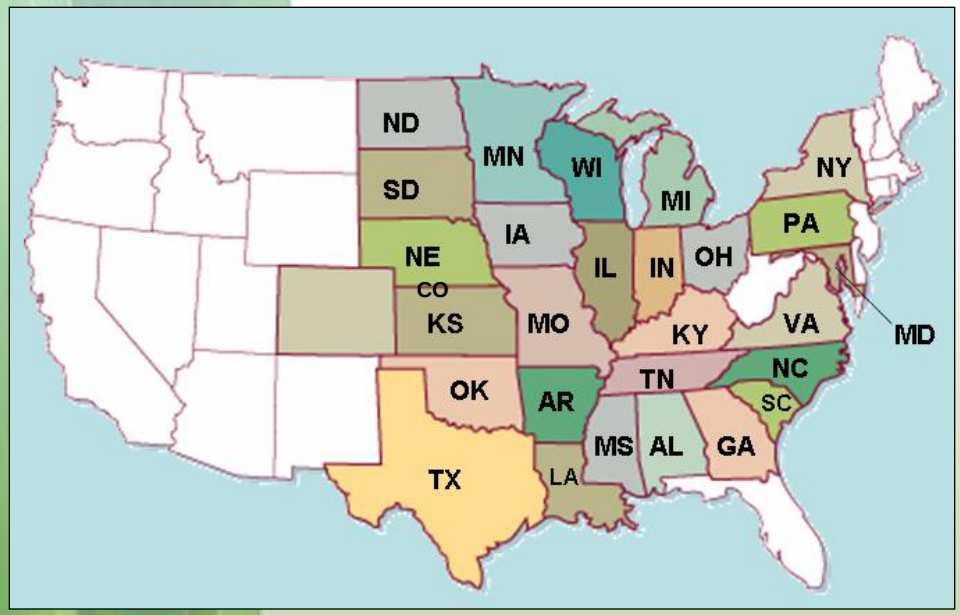
- Biofuels
- Commodity Prices
- Surplus to Shortage
- Biotechnology
- Being Green
- Conservation Tillage
- Land Prices
- Outside Money

Lessons for Us?

NCGA and Change and Our Outlook

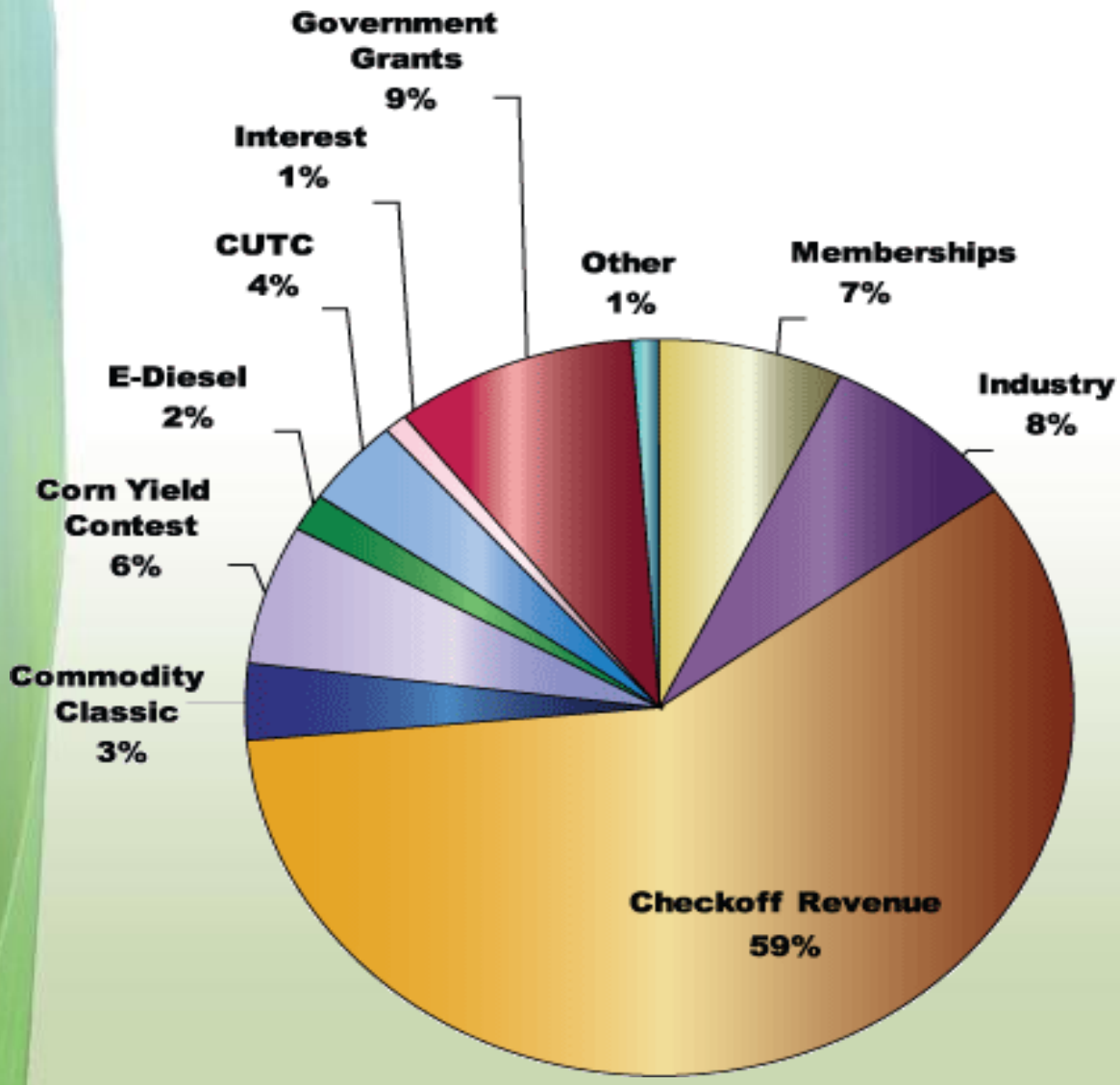
National Corn Growers Association

NCGA is a Federation, comprised of:



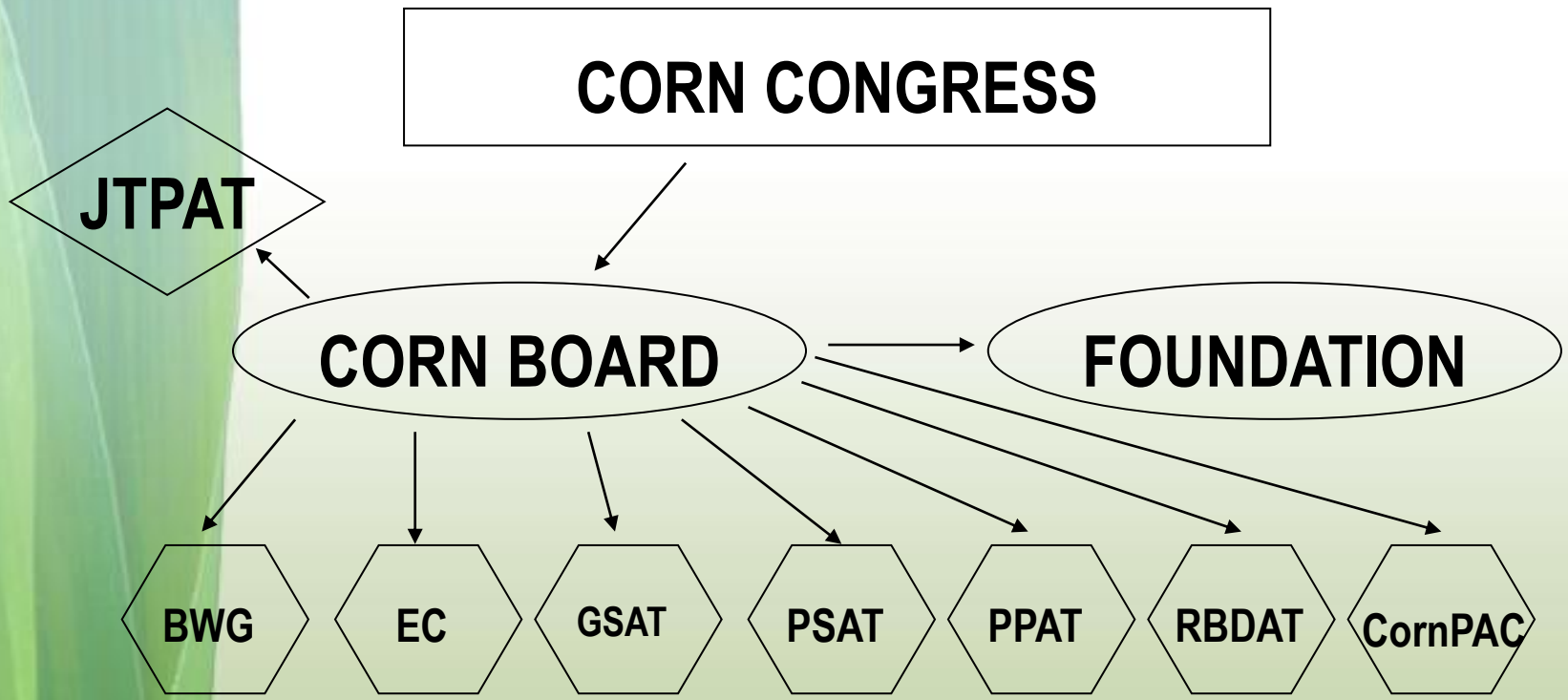
- 25 State Grower Affiliated Associations
- 23 Checkoff Boards
- 300,000+ Checkoff Investors
- 32,000+ Members

NCGA Revenue Sources, FY 2007



NCGA Structure

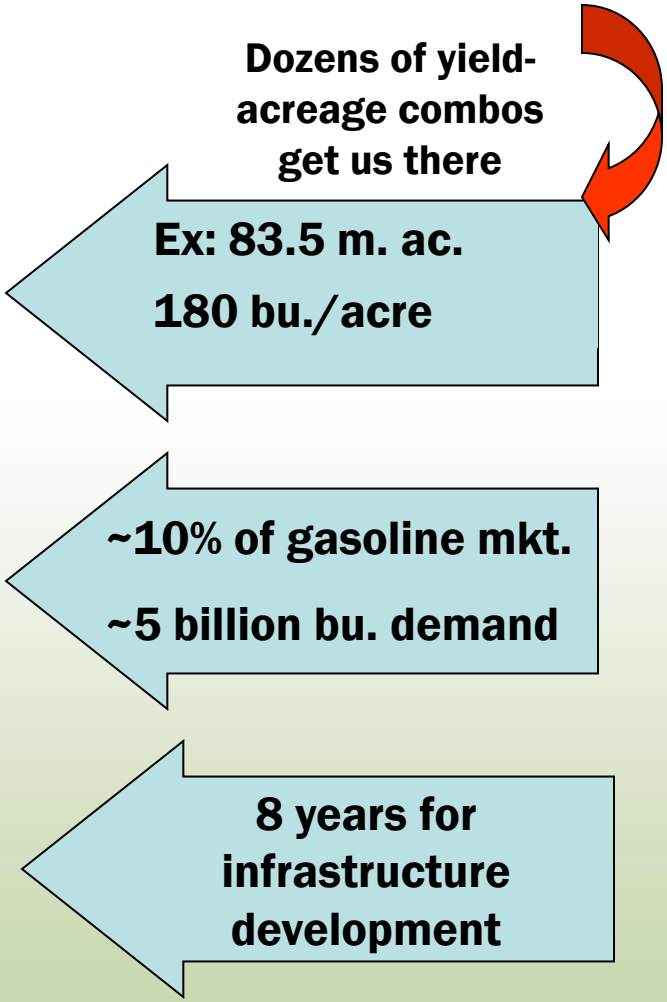
National Corn Growers Association



NCGA's Vision

"15 x 15 x 15"

- 15 billion bushel corn crop
- 15 billion gallons of ethanol
- …by 2015



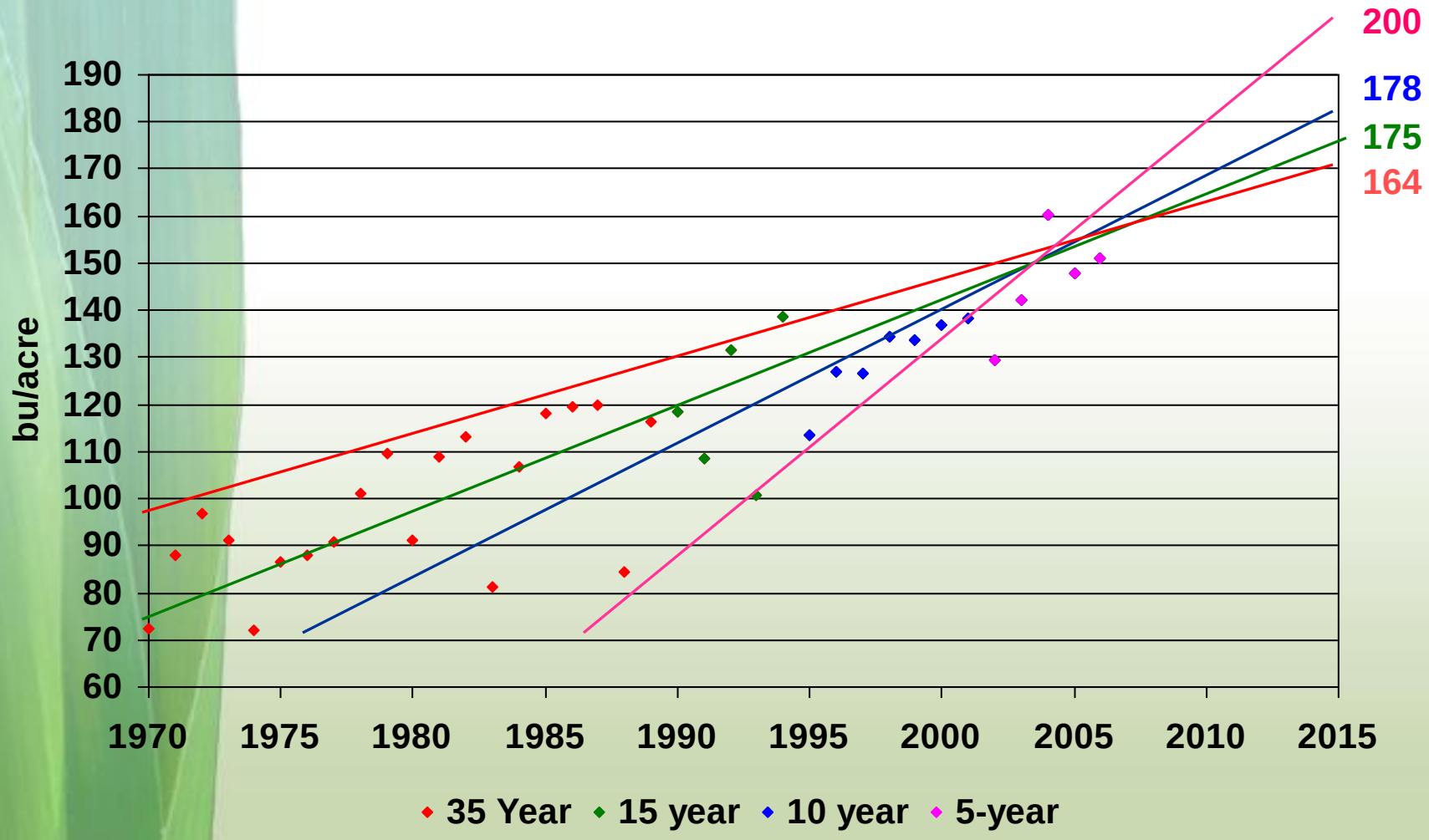
How Will We Get There?

An example of making the unimaginable a reality

U.S. Corn	1944	2007	% Change 1944-2007
Acres Harvested	85 mil	85 mil	
Price (Season Avg)	$1.03	$3.10	+201%
Production	2.8 bil bu	13.3 bil bu	+368%
Yield	33 bu/Acre	156 bu/Acre	+372%

Source: USDA

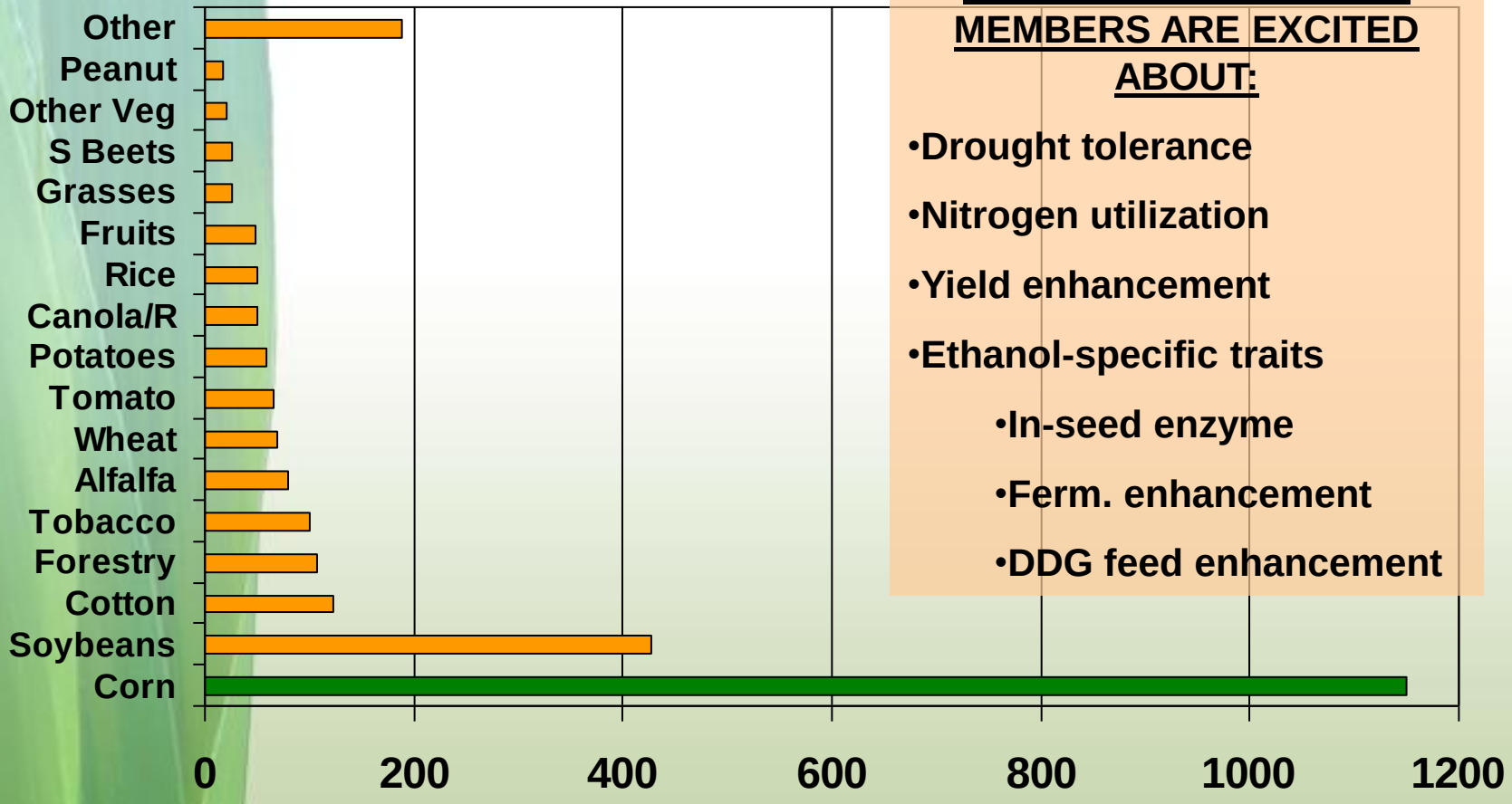
Corn Yield Trends Are Accelerating



Source: USDA

Transgenic Field Trial Release Permits

2005-June 2007

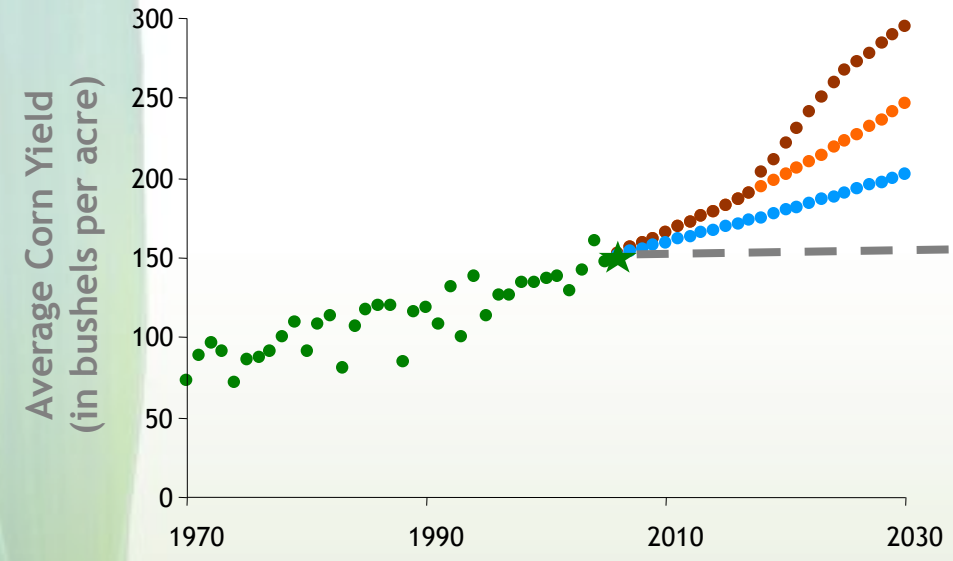


PIPELINE TRAITS NCGA MEMBERS ARE EXCITED ABOUT:

- Drought tolerance
- Nitrogen utilization
- Yield enhancement
- Ethanol-specific traits
  - In-seed enzyme
  - Ferm. enhancement
  - DDG feed enhancement

Data Source: USDA, APHIS

Step-Changes in Corn Potential

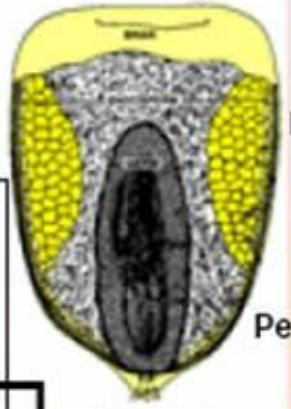


Average U.S. Corn Yield in 2006 was 149 Bushels Per Acre

- Historical Yield Projection
- 30-Year Trend, Based on Historical Yield Projection
- Molecular Breeding Benefit
- Biotechnology Yield Benefit

Source: Monsanto

Corn Has Huge Potential for Biofuels



Ethanol Productivity

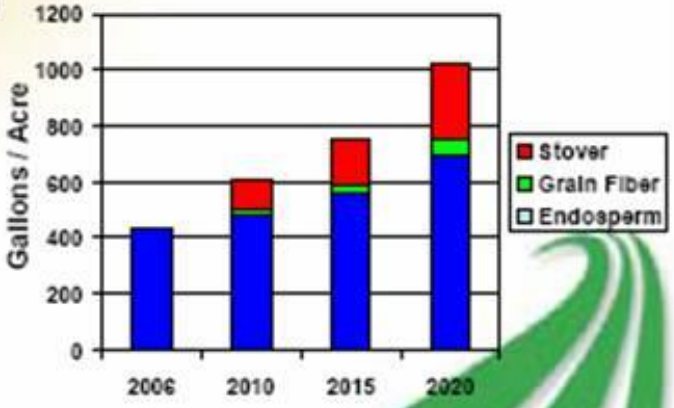
Endosperm → 435 Gal/Acre

Pericarp → 18 Gal/Acre (2010)

Stover → 100 Gal/Acre (2010)

	10	15	20
Grain Starch			
Bu/Ac	180	200	250
Gal/Bu	2.7	2.9	3.0
Gal/Ac	486	580	**750**
Grain Pericarp			
Ton/Ac	.45	.500	.625
Gal/Ton	40	60	90
Gal/Ac	18	30	**56**
Stover			
Ton/Ac	2.5	2.75	3
Gal/Ton	40	60	90
Gal/Ac	100	165	**270**

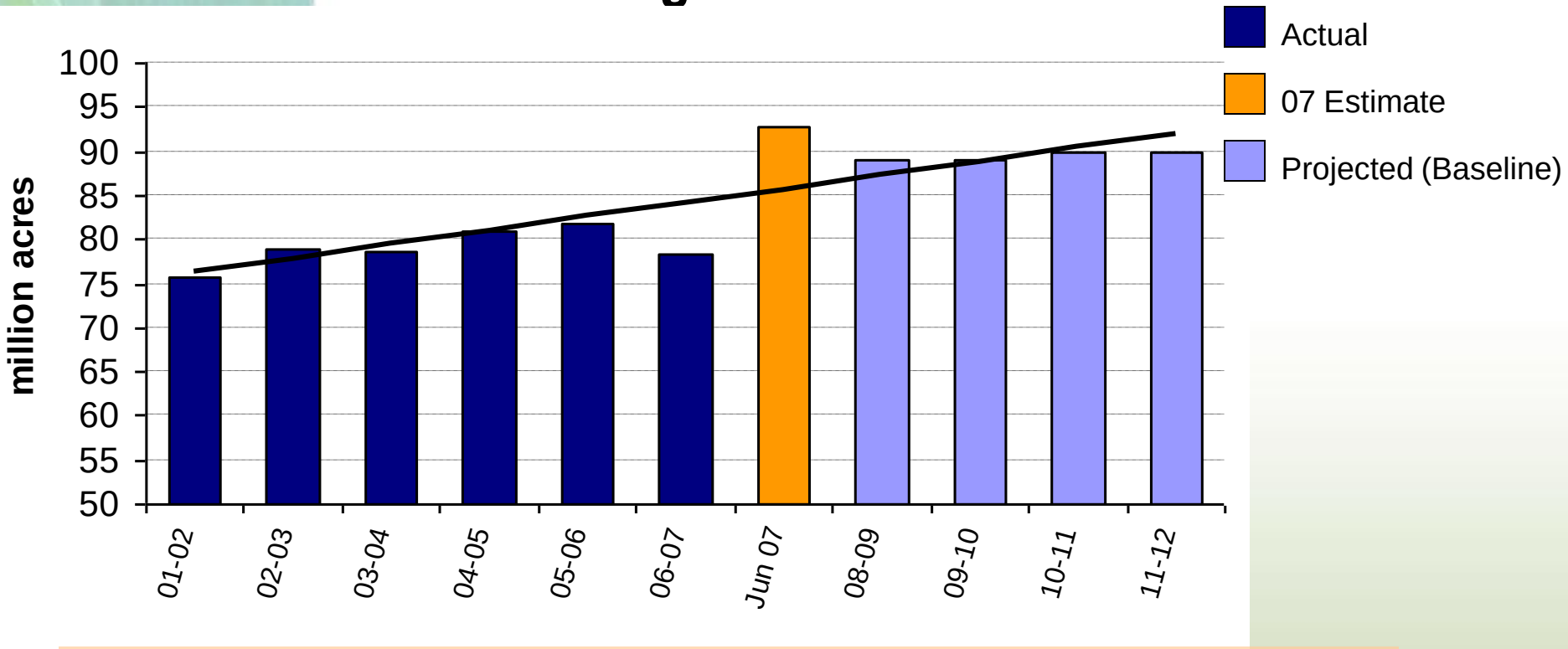
1,000 gallons / acre by 2020?



PIONEER.

How Will We Get There?

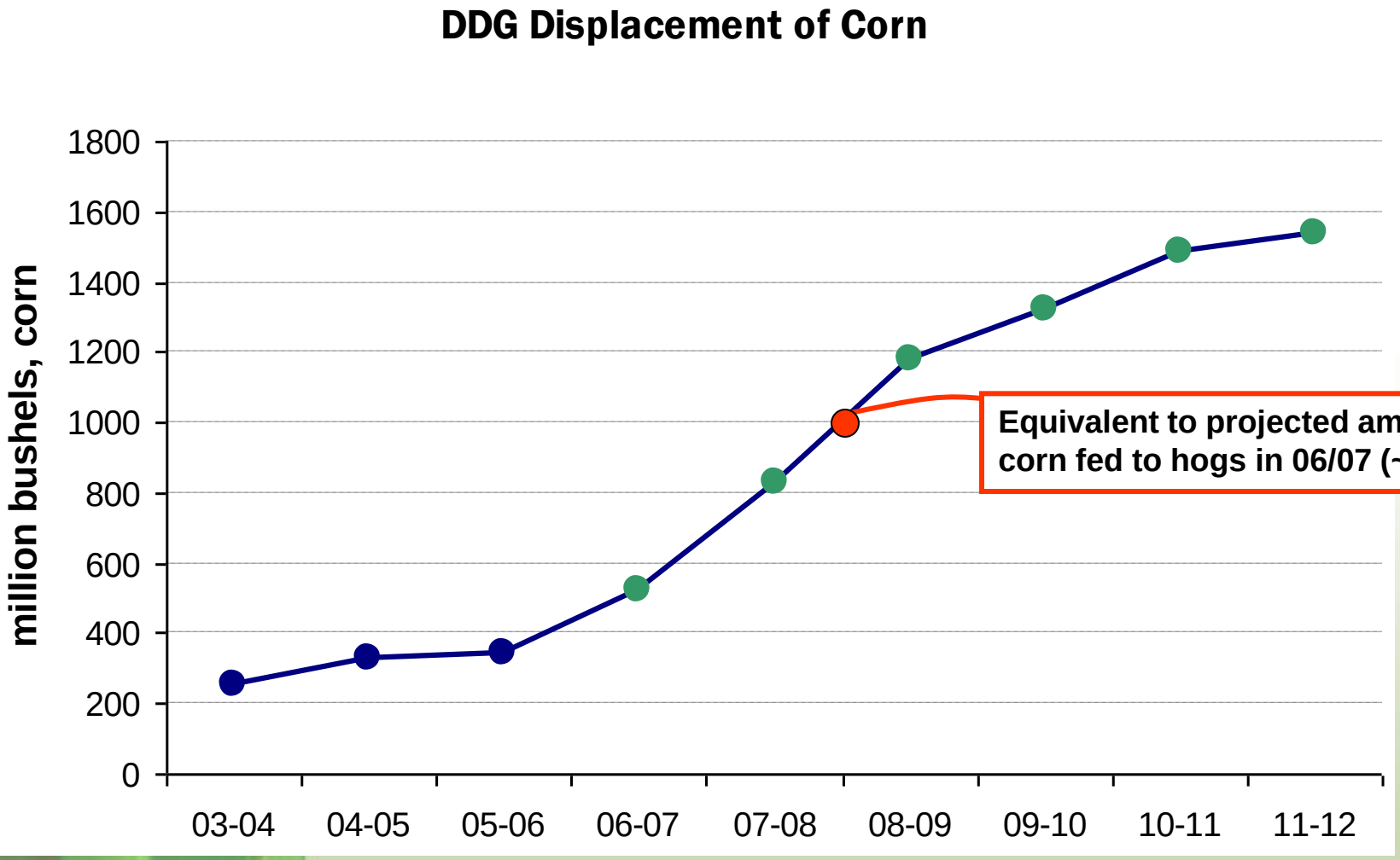
Acreage Shifts



Every additional <u>1 million harvested acres</u> results in <u>150 million bushels</u> (assuming yield of 150 bu./acre). That additional corn could produce <u>420 million gallons</u> of ethanol.

Data Source: USDA, ERS; 2007 Baseline Projections

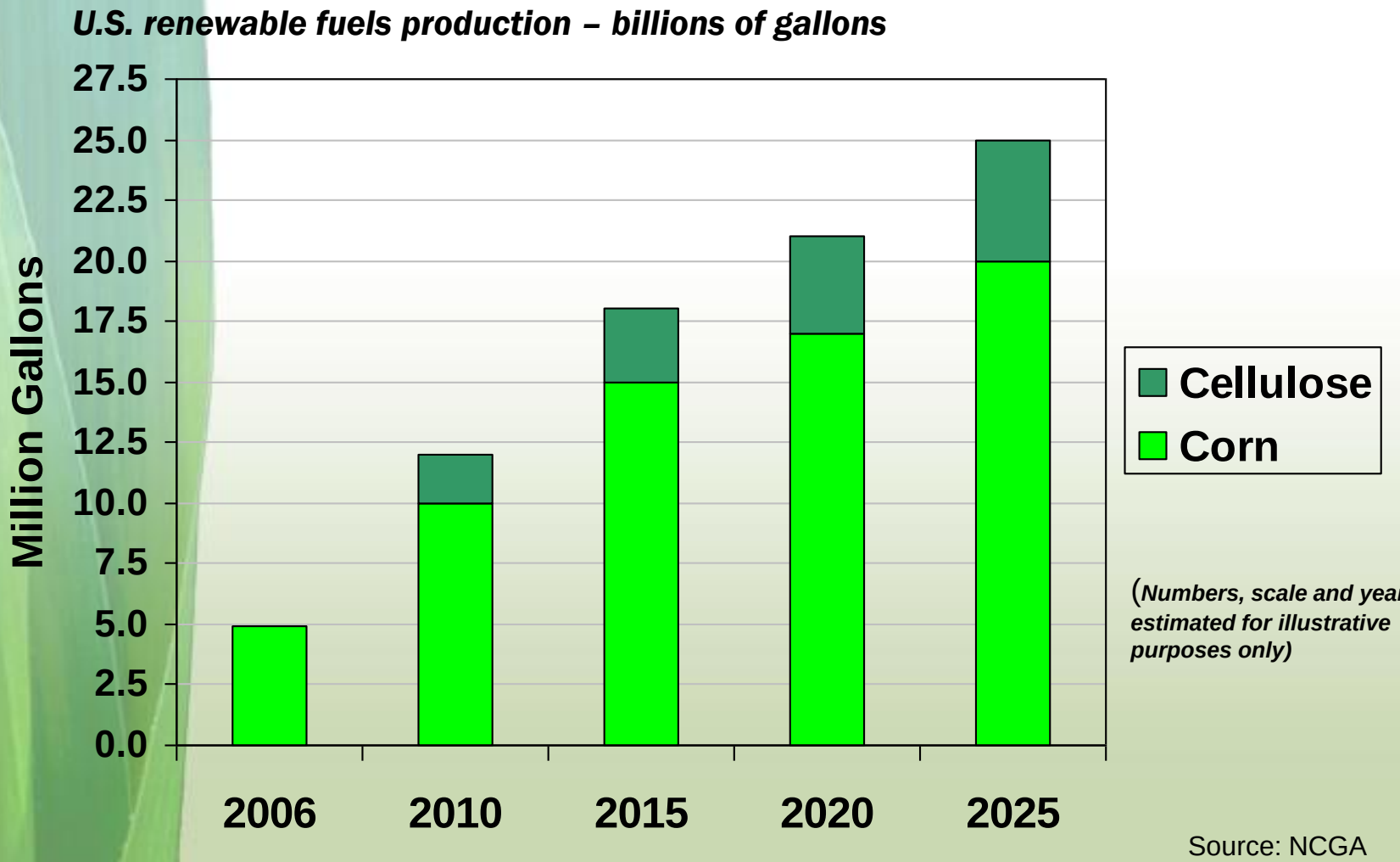
How Will We Get There?



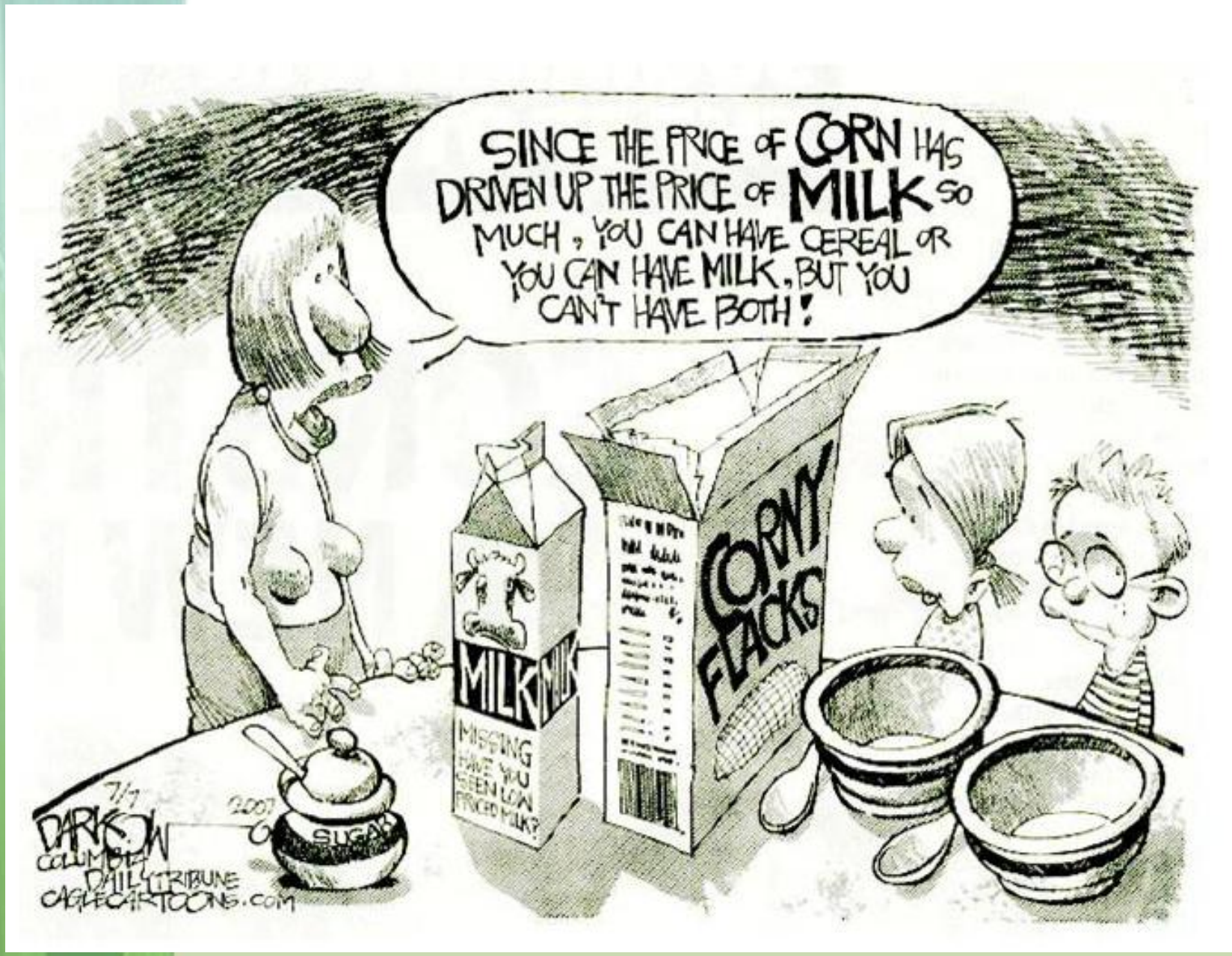
Source: PRX

How Will We Get There?

Cellulose is Here!



Source: NCGA


SINCE THE PRICE OF CORN HAS DRIVEN UP THE PRICE OF MILK SO MUCH, YOU CAN HAVE CEREAL OR YOU CAN HAVE MILK, BUT YOU CAN'T HAVE BOTH!
MILK
CORNY FLACKS
SUGAR
DARKOW
COLUMBIA DAILY TRIBUNE
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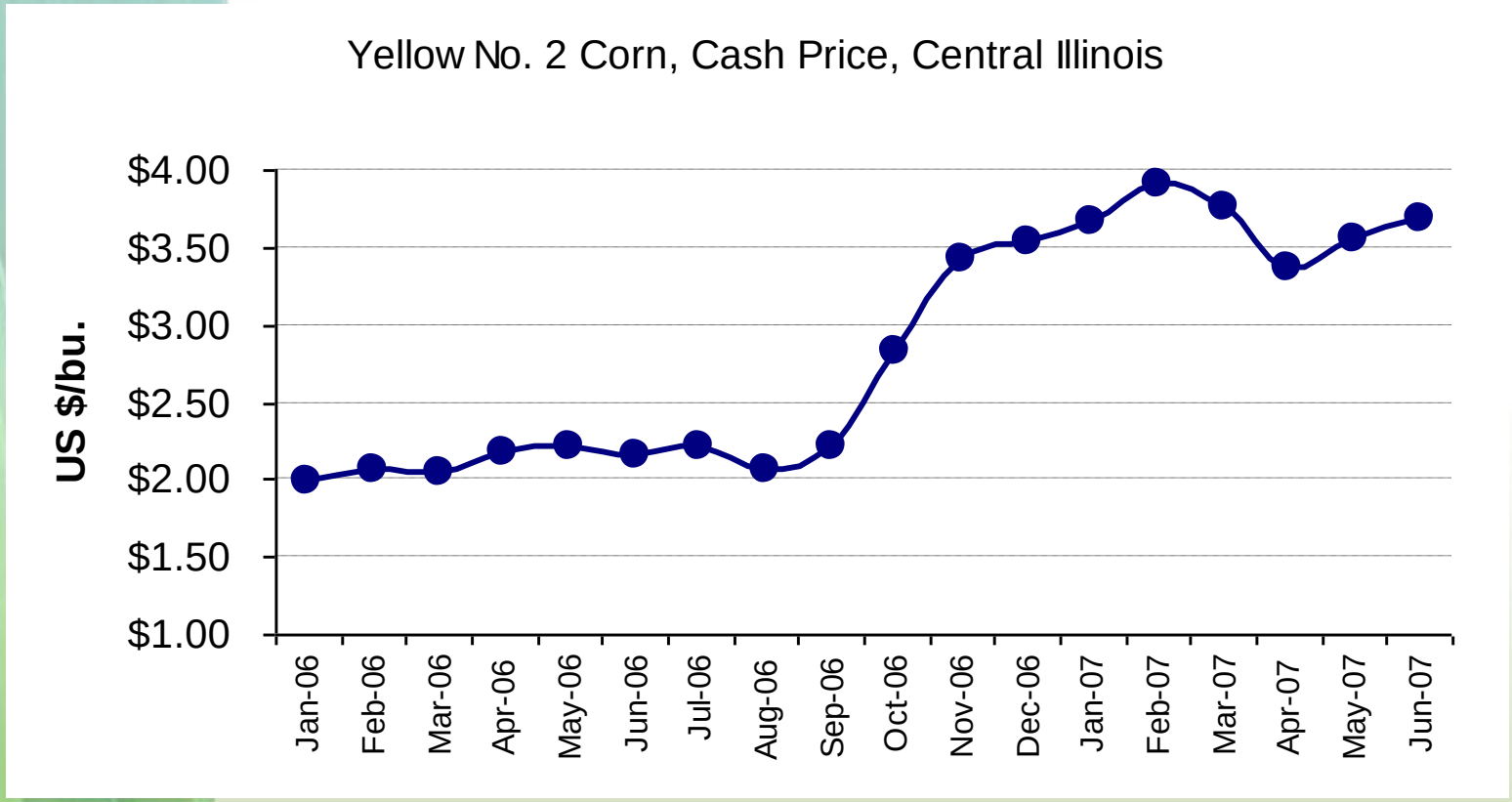
Yes, Corn Prices are Higher



But what impact has that had on retail food prices?

Source: USDA, ERS Feed Grains Database (Cent. Illinois), http://www.ers.usda.gov/Data/FeedGrains/

Retail Food Items Contain Very Little Corn

Product	Qty.	Corn Req.	Value of corn in unit @ $2.40/bu	Value of corn in unit @ $3.25/bu
Beef	1 lb.	2.8 lbs.	$0.12	$0.16
Pork	1 lb.	3.6 lbs.	$0.15	$0.21
Milk	1 gal.	1.8 lbs.	$0.08	$0.10
Eggs	1 dz.	4.0 lbs.	$0.17	$0.23
Broiler Chicken	1 lb.	2.0 lbs.	$0.09	$0.12
Corn Flakes	12 oz.	10 oz.	$0.03	$0.04

Sources: Beef Checkoff; National Pork Board; USDA-ERS

Grocery Bill Comparison for Selected Items

ITEM	QTY	JUNE 05 PRICE	JUNE 06 PRICE	JUNE 07 PRICE
Milk	1 gal.	$3.12	$3.00	$3.43
American Cheese	1 lb.	$3.83	$3.53	$3.63
Butter	½ lb.	$1.55	$1.45	$1.54
Ice cream	½ gal.	$3.62	$3.86	$3.88
Turkey	2 lbs.	$2.16	$2.26	$2.44
Chicken breast	2 lbs.	$6.60*	$6.56	$7.02
Eggs	1 dz.	$1.14	$1.24	$1.37
Pork Chops	2 lbs.	$6.62	$6.28	$6.46
Bacon	2 lbs.	$6.92	$6.80	$7.32
Ground beef	1 lbs.	$2.74	$2.71	$2.86
Beef steak	2 lbs.	$10.54	$10.04	$10.62
Cola, non-diet	2 ltrs.	$1.13	$1.12	$1.18
Malt Beverage	72 ozs.	$4.91	$4.91	$4.99
TOTAL		**$54.88**	**$53.76**	**$56.74**

- **Aggregate increase for these items from June 06 to June 07 is 5.5%...**
- **However, June 07 prices are only 3.4% higher than June 05 prices**
- **25-Year average annual food inflation is 2.9%**

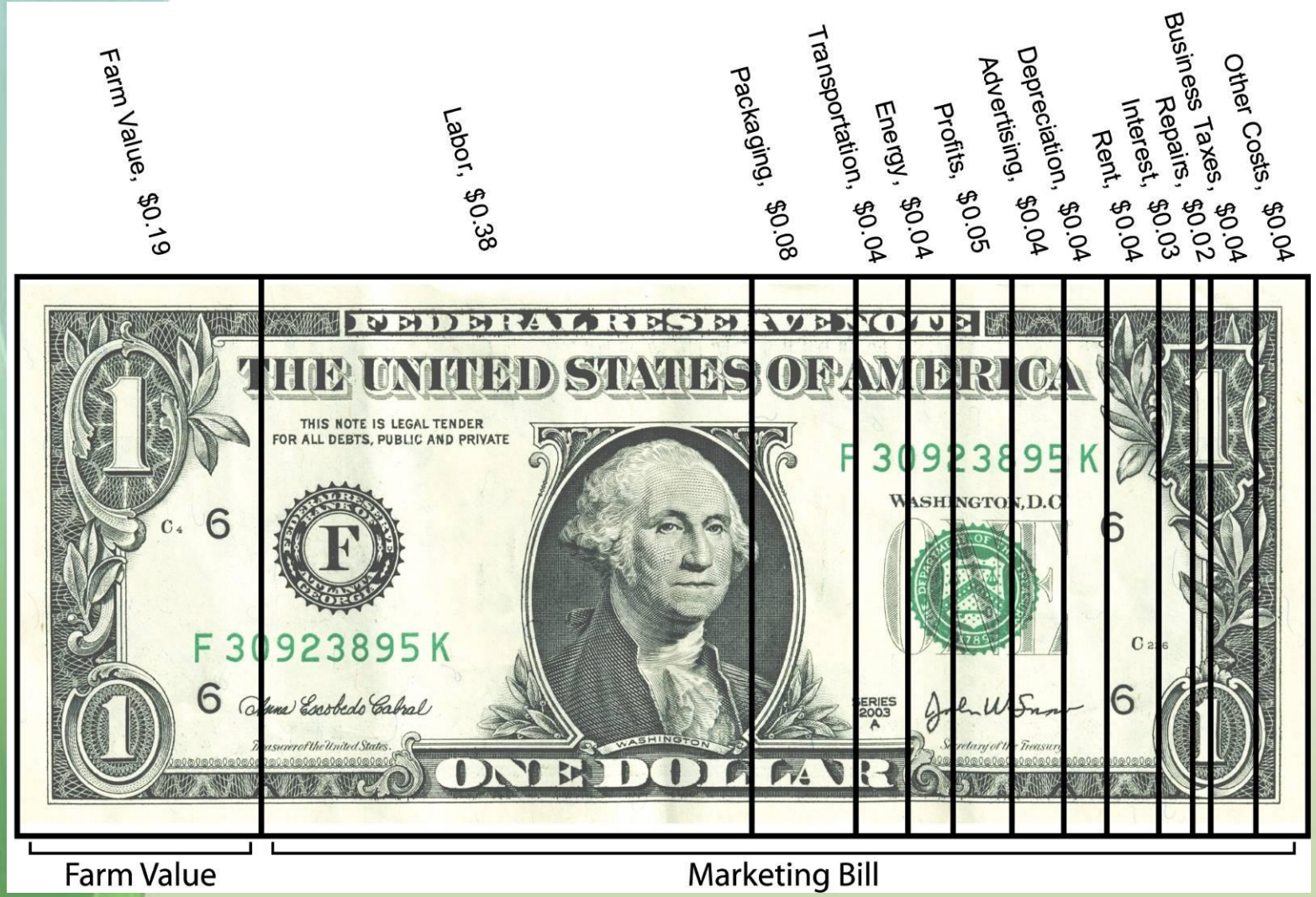
Source: BUREAU OF LABOR STATISTICS
http://data.bls.gov/PDQ/outside.jsp?survey=ap

*2005 DATA FOR CHICKEN BREAST NOT AVAILABLE. VALUE IS 2006 AVERAGE PRICE

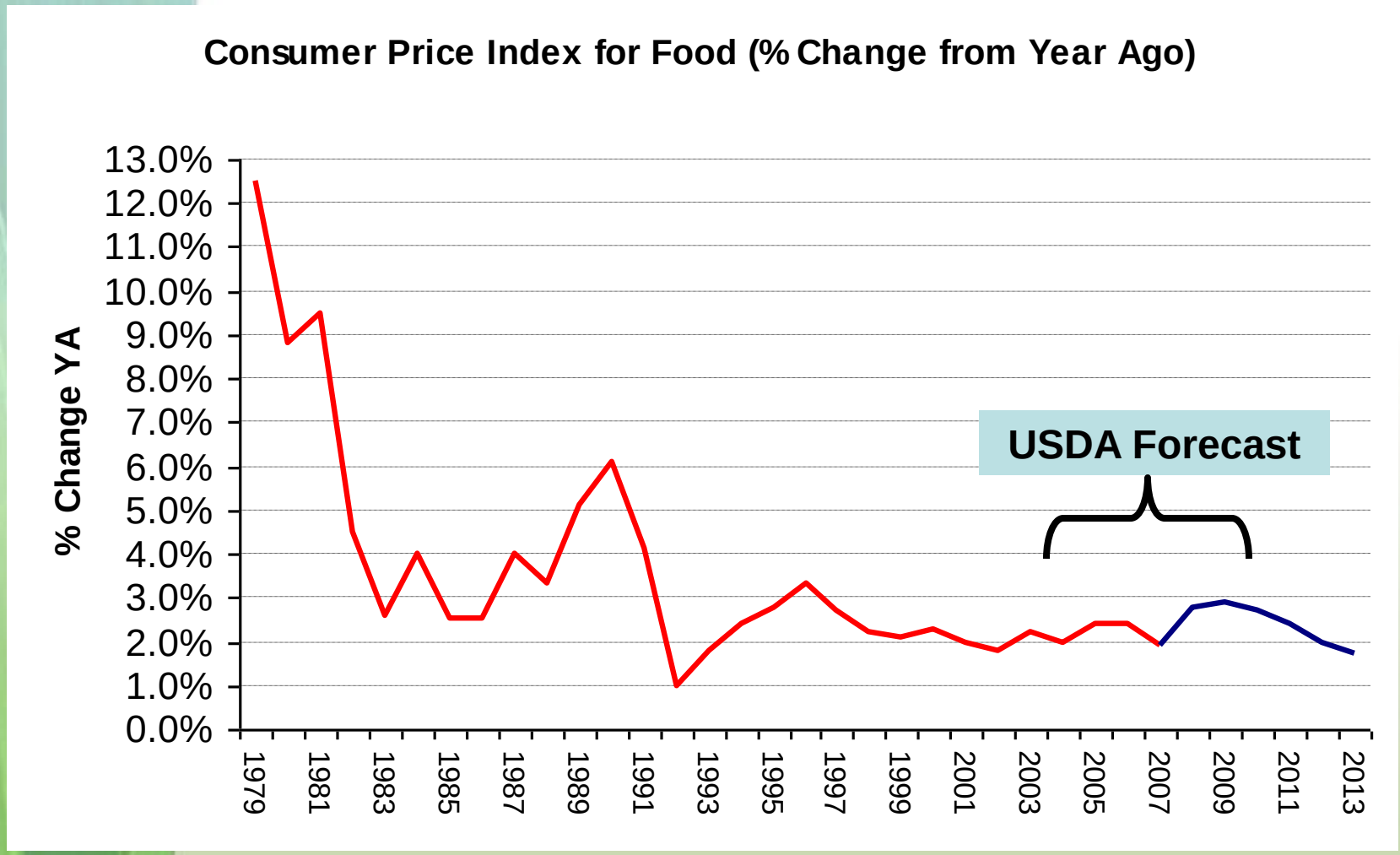
Mostly Hot Air In Popcorn Headlines…

- *$5 = 1 tub of popcorn at a movie theater or 38.5 pounds of popcorn from a farmer*
- *$5 of popcorn from a farmer fills nearly a dozen 33-gallon trash bags.*
- 2006 – Farmer got 1.6 cents of that $5 tub
- 2007 – Farmer got 2 cents of that $5 tub

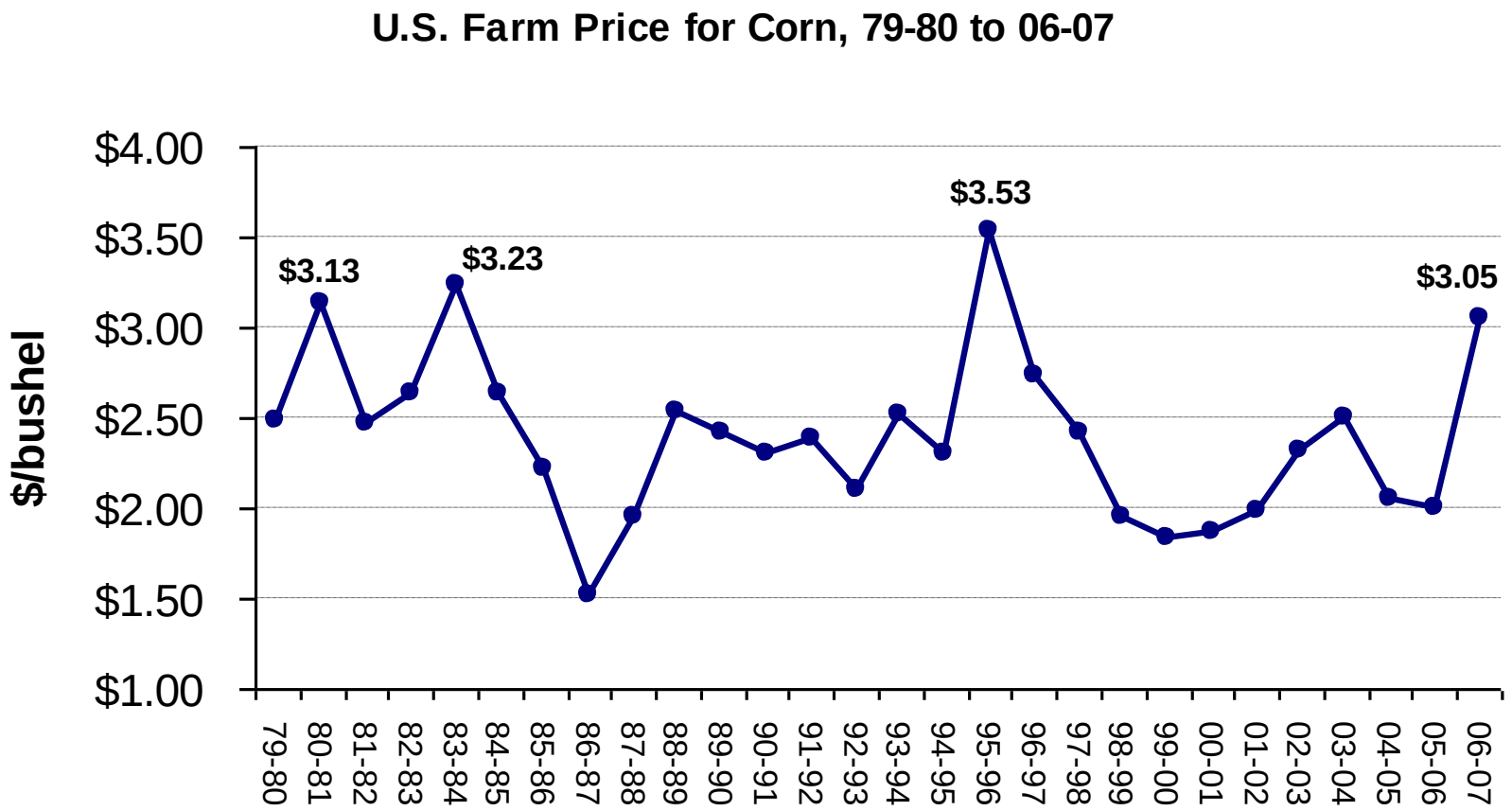
Farm Inputs Are Only 19% of the Consumer Food Dollar



The Impact on Retail Food Prices



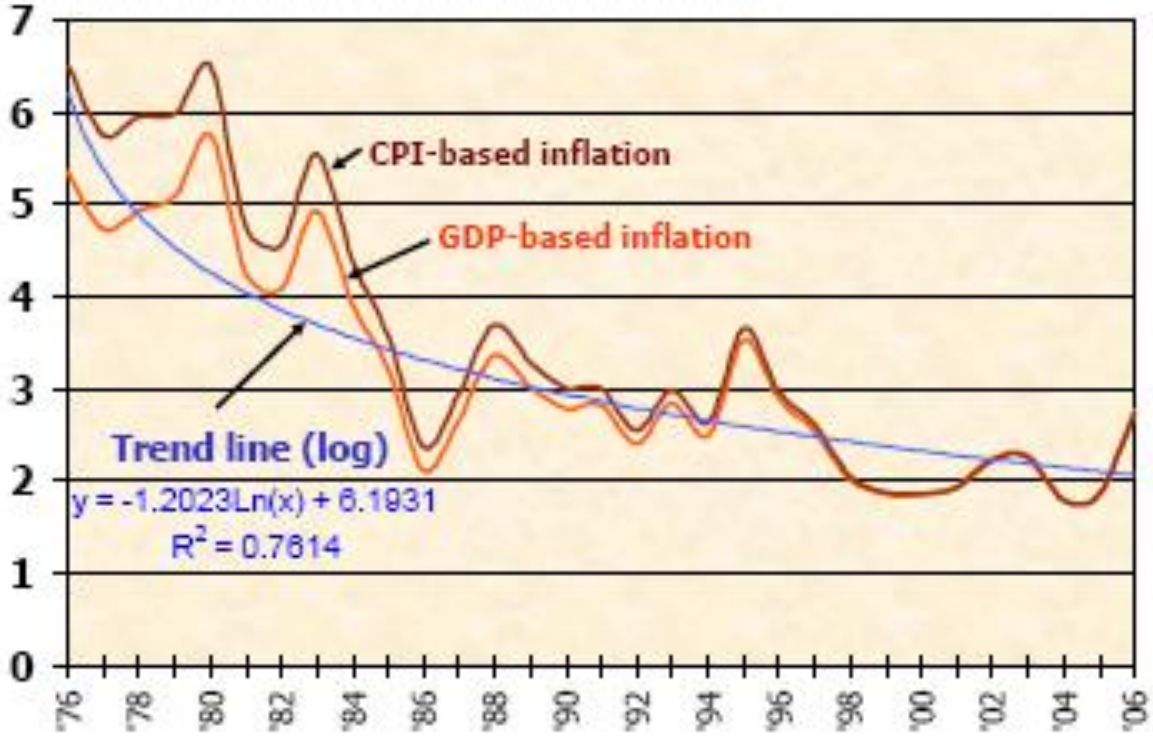
Current Prices Not Unprecedented



Source: USDA, ERS and ProExporter Network

Equivalent real cost of corn...

Corn prices, $/per unit weight (bu)
Data lines are real chained yr2000$

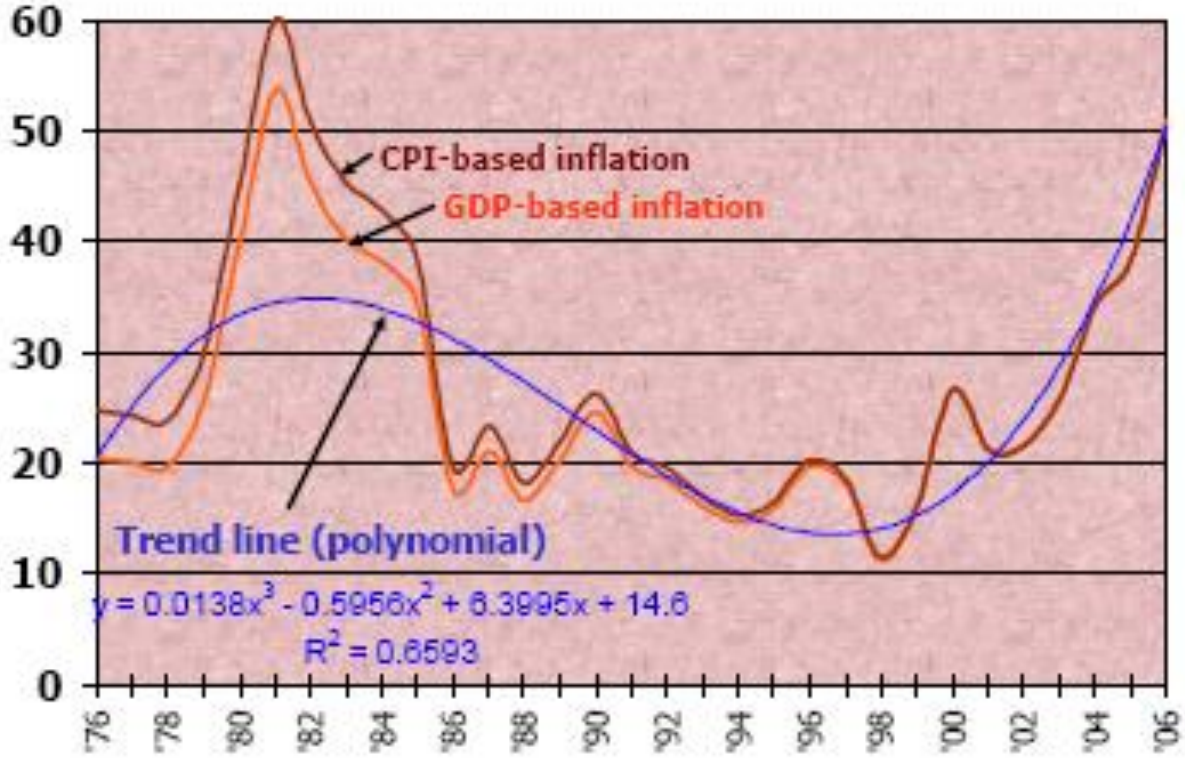


StrathKirn® Inc.

Data source: U.S. Dept of Commerce

Equivalent real cost of crude oil...

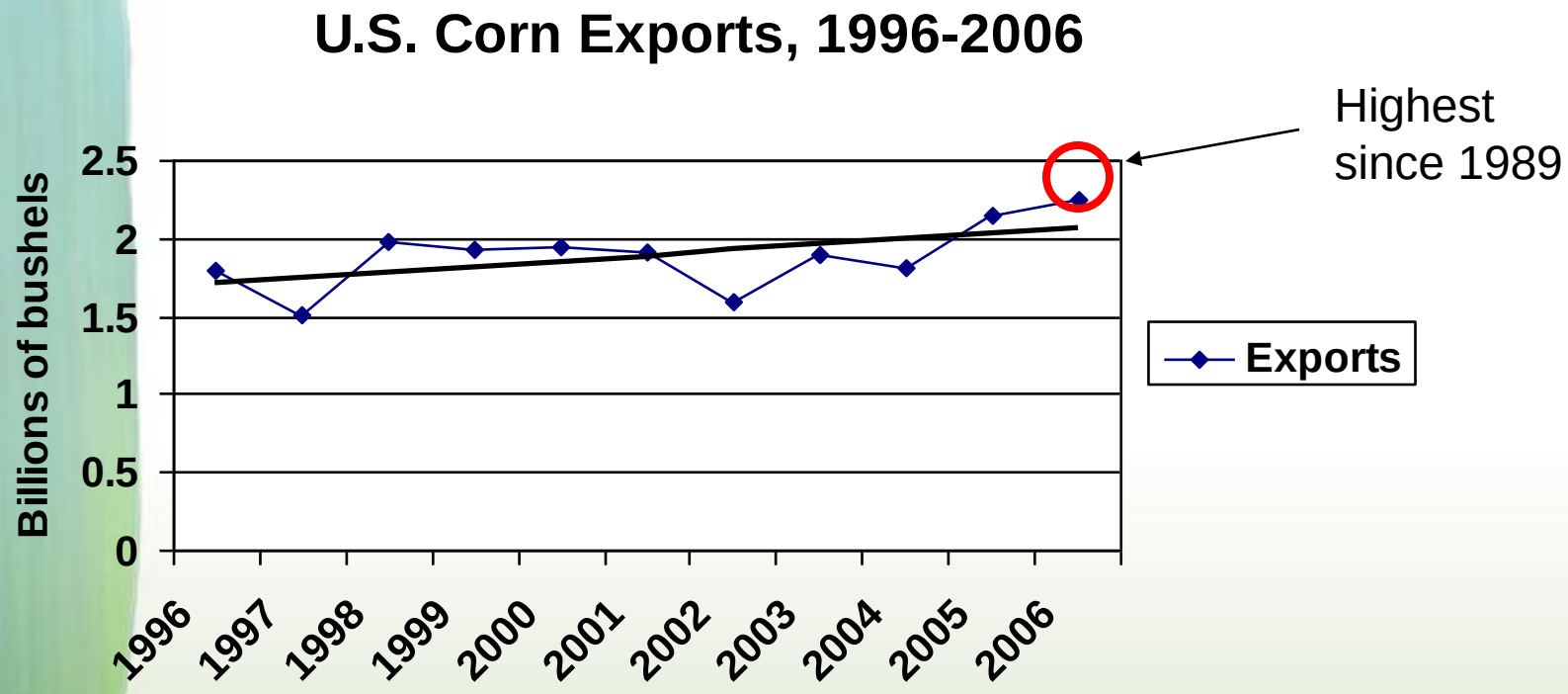
Crude oil average U.S. prices, $/unit volume (bbl)
Data lines are real chained yr2000$



StrathKirn® Inc.

Data source: U.S. Dept of Commerce

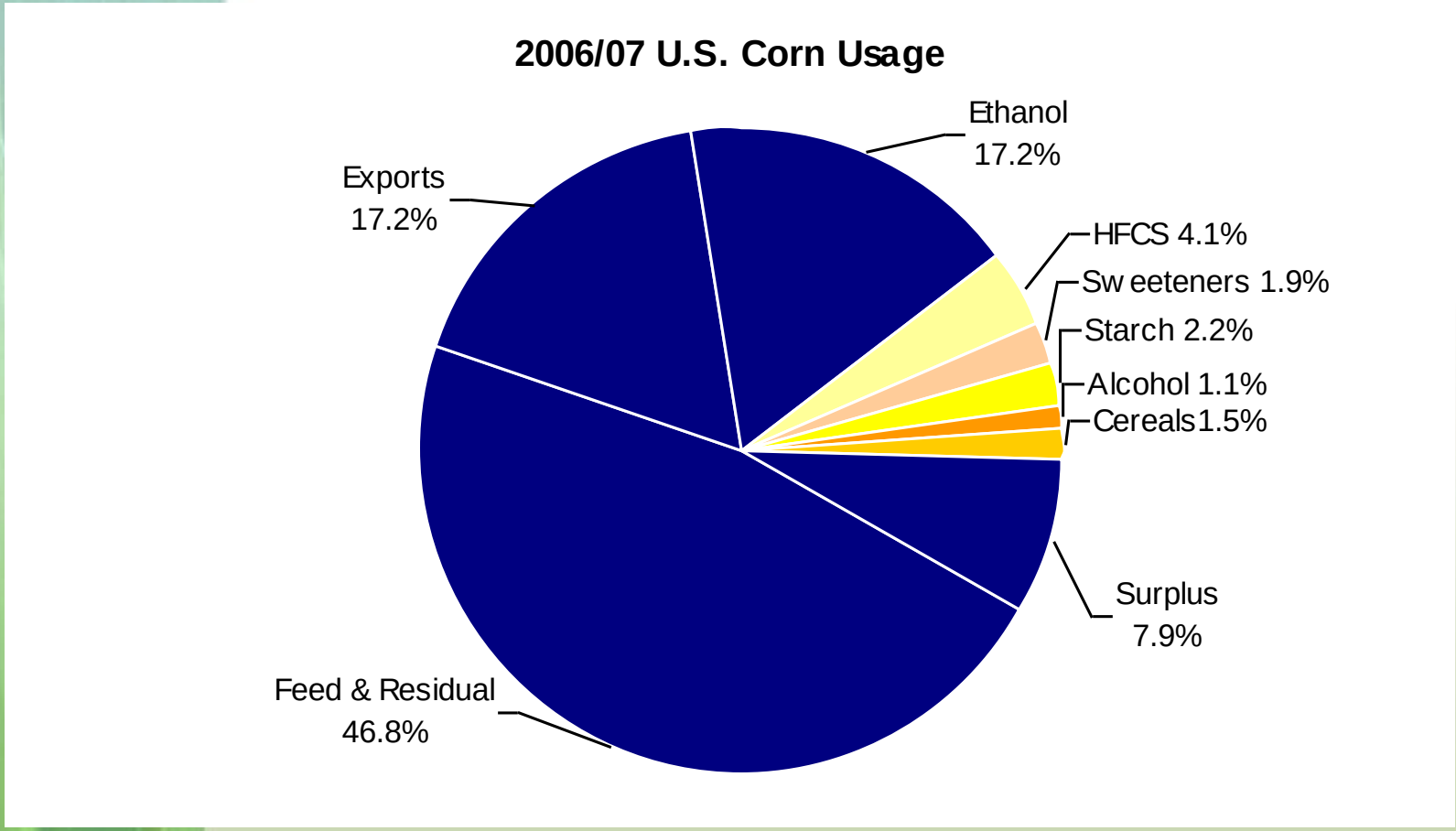
Myth: Ethanol Cuts U.S. Corn Exports to Hungry Countries



- U.S. is world's leading corn exporter
- Exports are UP in 06-07
- Most U.S. exports go to livestock feed in developed countries
- Ethanol production contributes DDGS to export market
- "Scarcity of Food" is not the issue!

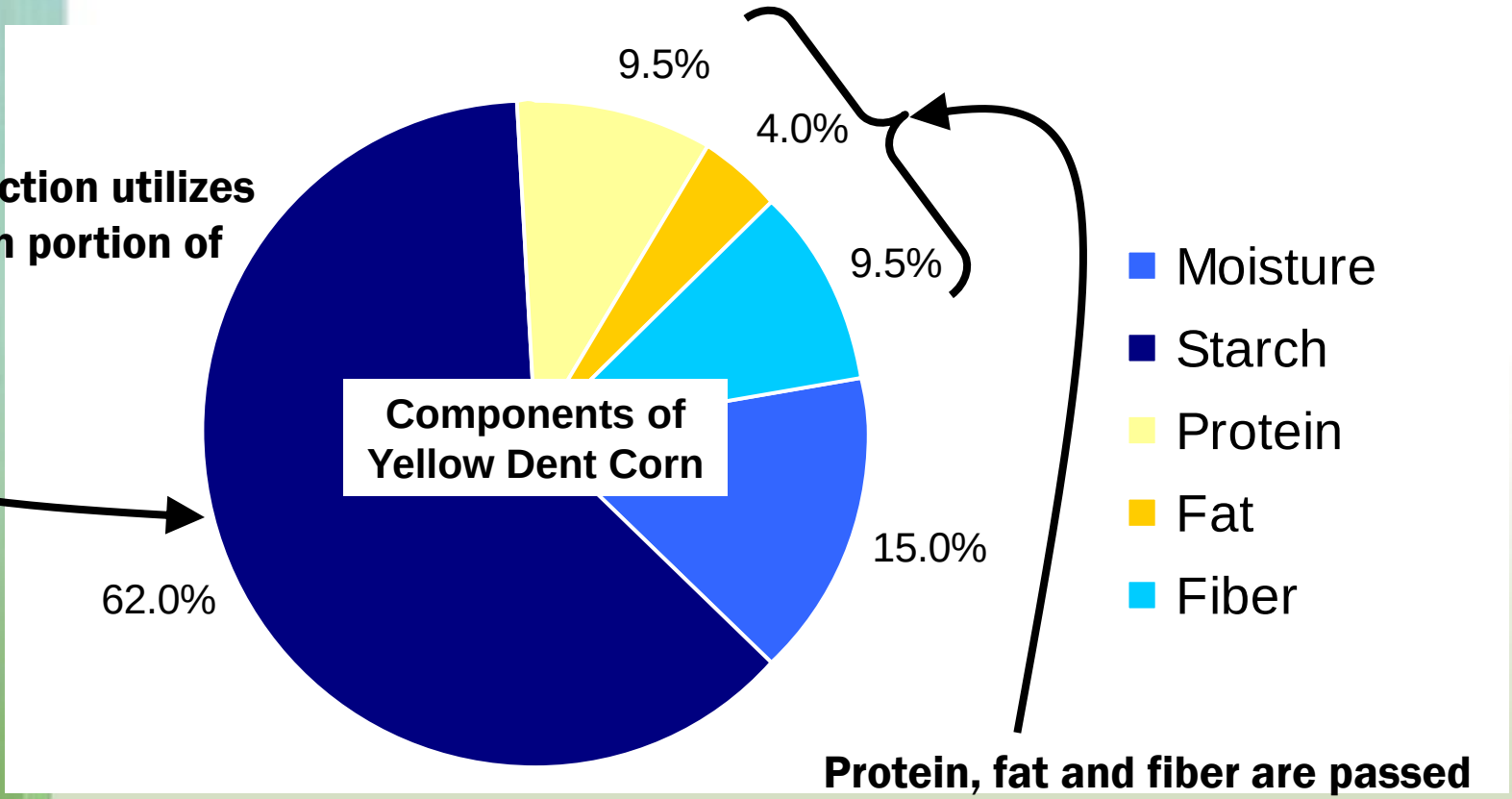
Source: USDA-FAS

Very Little Corn Used for Human Food



Source: USDA, ERS and ProExporter Network

Protein, Fat and Fiber Stay in the Food Chain



Ethanol production utilizes only the starch portion of the kernel

Protein, fat and fiber are passed through to distillers grains

How Will We Get There?

- Grain/Starch Contribution
- Cellulose Contribution
- Wood Chips, Municipal Wastes, Other
- Conservation
- Higher Mileage
  - Plug-in Hybrid FFVs
- Windpower
- New Technologies Still to Come…

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Pointing fingers across the aisle

Immigration • Parties blame each other for collapse of reform bill.

By Ron Harris
POST-DISPATCH WASHINGTON BUREAU

WASHINGTON • Hours before the controversial bill to reform immigration fell apart, Mississippi Sen. Trent Lott made an impassioned speech to colleagues from the Senate floor, imploring them to find common ground.

"Are we men or mice?" asked Lott, a leading Republican.

After the bill went down in flames late Thursday night, mostly because of a lack of Republican support, Lott said he'd found the answer to his question.

"We're a pack of rodents," Lott said. "This is an issue that we need to find a resolution on. We're continuing on our path of

More ethanol, more corn, more fertilizer, More pollution

Reading, writing, risqué

Two worlds coexist in an uneasy peace in tiny Brooklyn.

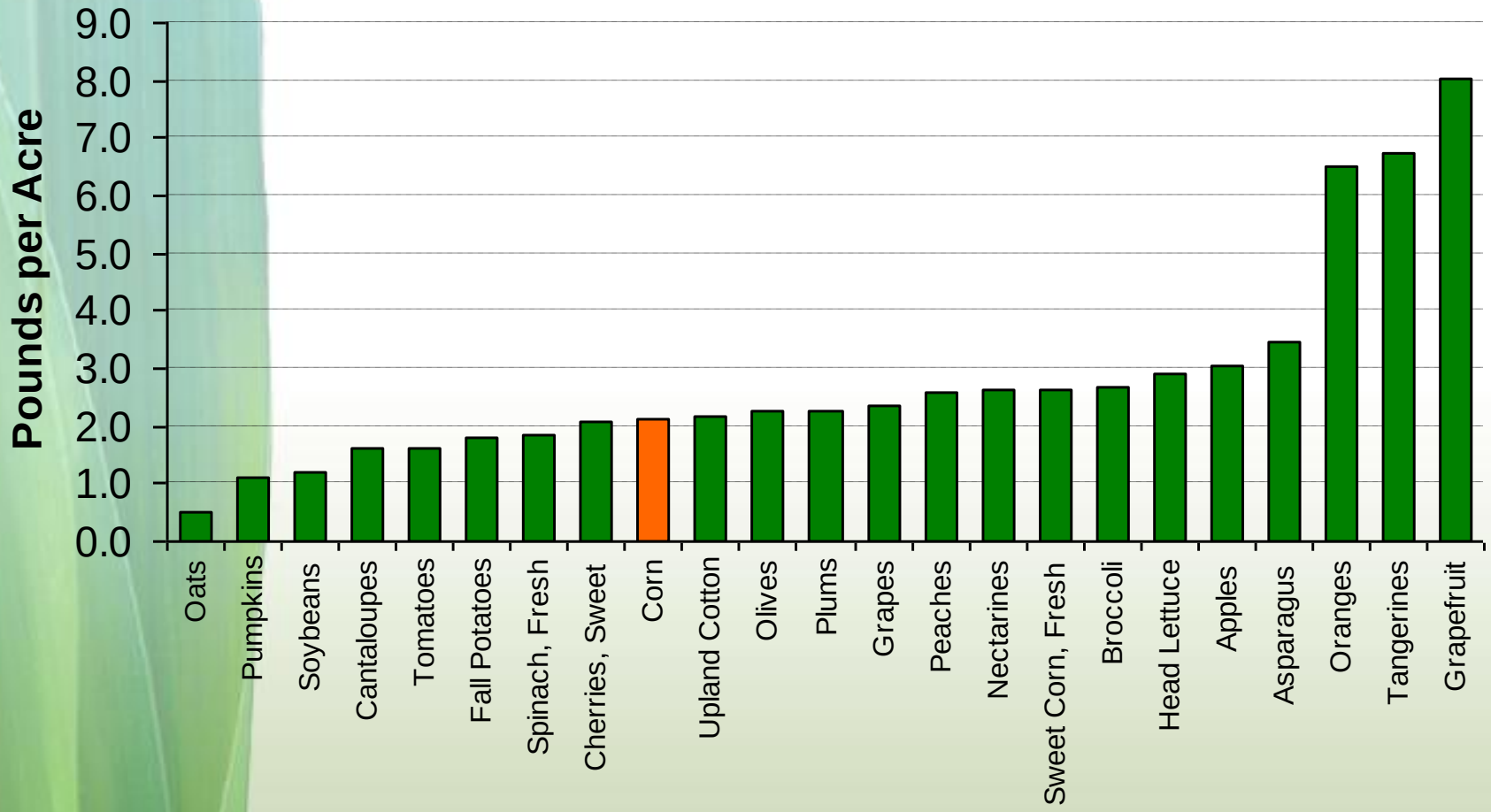
By Angie Leventis
ST. LOUIS POST-DISPATCH

BROOKLYN • About a doze teen and preteen girls rais their hands above their head and then down to their chest pressed palm against palm i prayer.

Songs about belief, virtu and the love of Jesus play in th background. The praise dancer students in a faith-based danc troupe, perform for a crowd o 150 classmates and parents at a evening assembly in the Lov joy School gymnasium.

Six blocks away, sever young women at Roxy's rais their hands above their head and shake their hips on dimly l

Herbicide Application Rates, pounds per acre



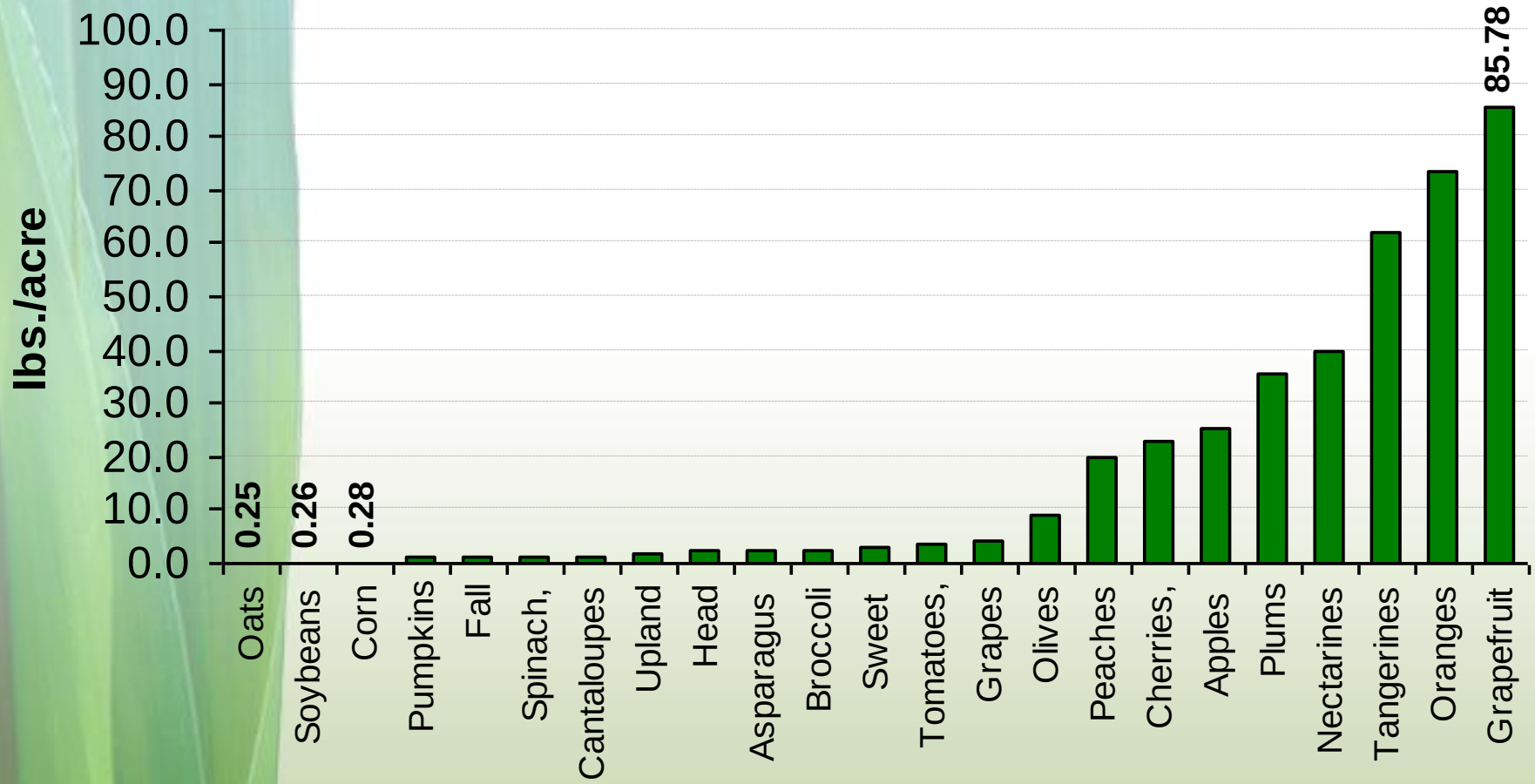
Sources:

Agricultural Chemical Usage 2004 Vegetables Summary (NASS, 2005)

Agricultural Chemical Usage 2005 Fruits Summary (NASS, 2006)

Agricultural Chemical Usage 2005 Field Crops Summary (NASS, 2006)

Insecticide Application Rates, pounds per acre



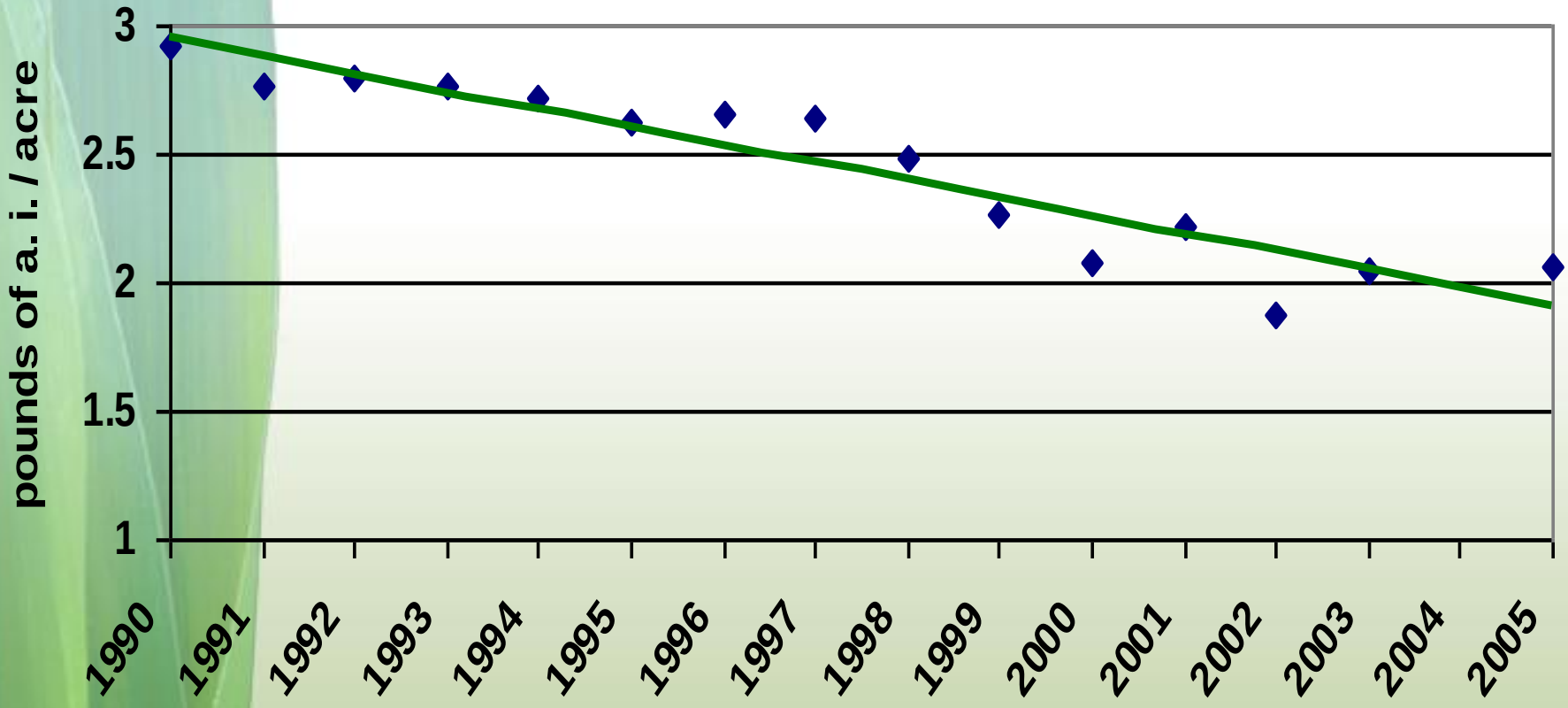
Sources:

Agricultural Chemical Usage 2004 Vegetables Summary (NASS, 2005)

Agricultural Chemical Usage 2005 Fruits Summary (NASS, 2006)

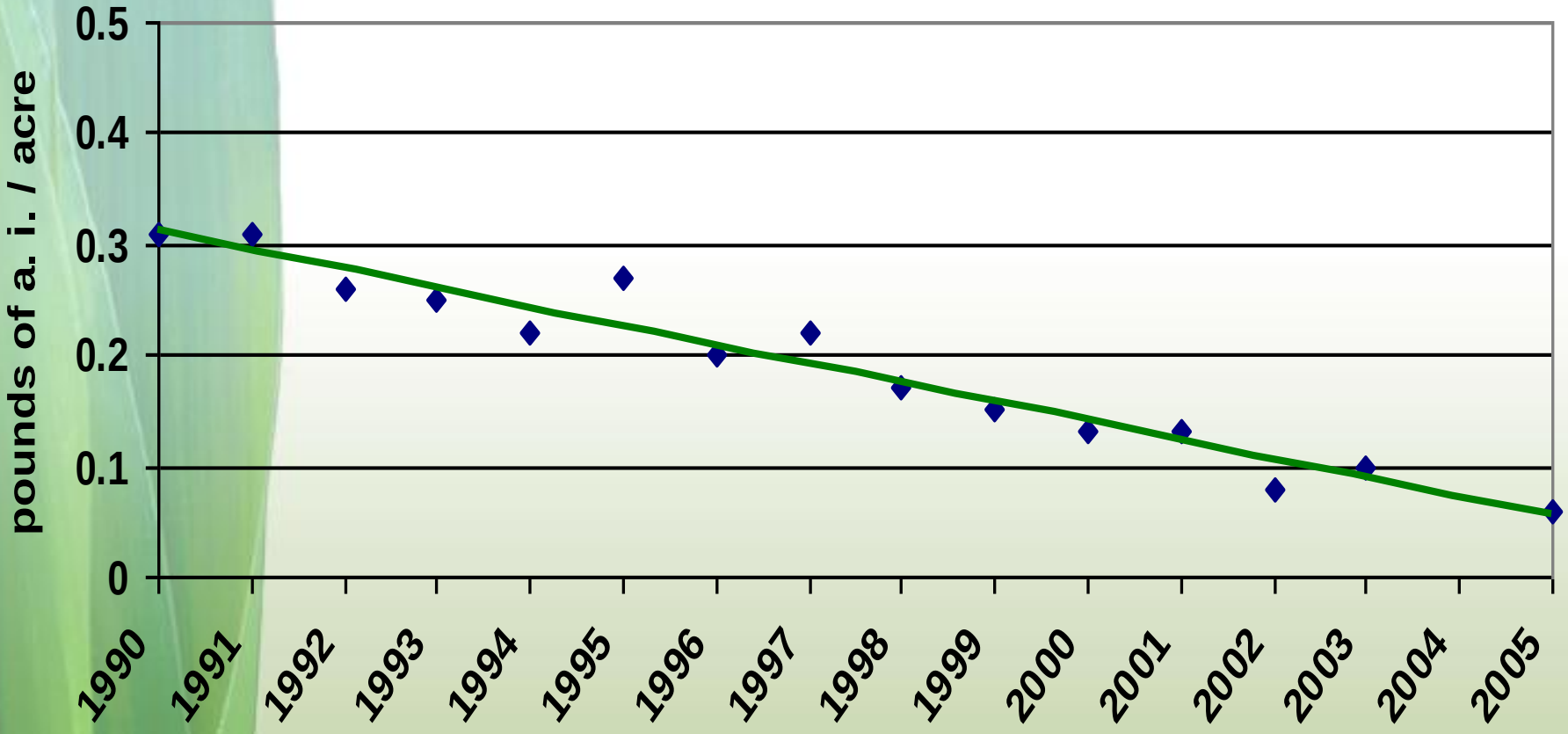
Agricultural Chemical Usage 2005 Field Crops Summary (NASS, 2006)

Herbicide Usage in Corn Production



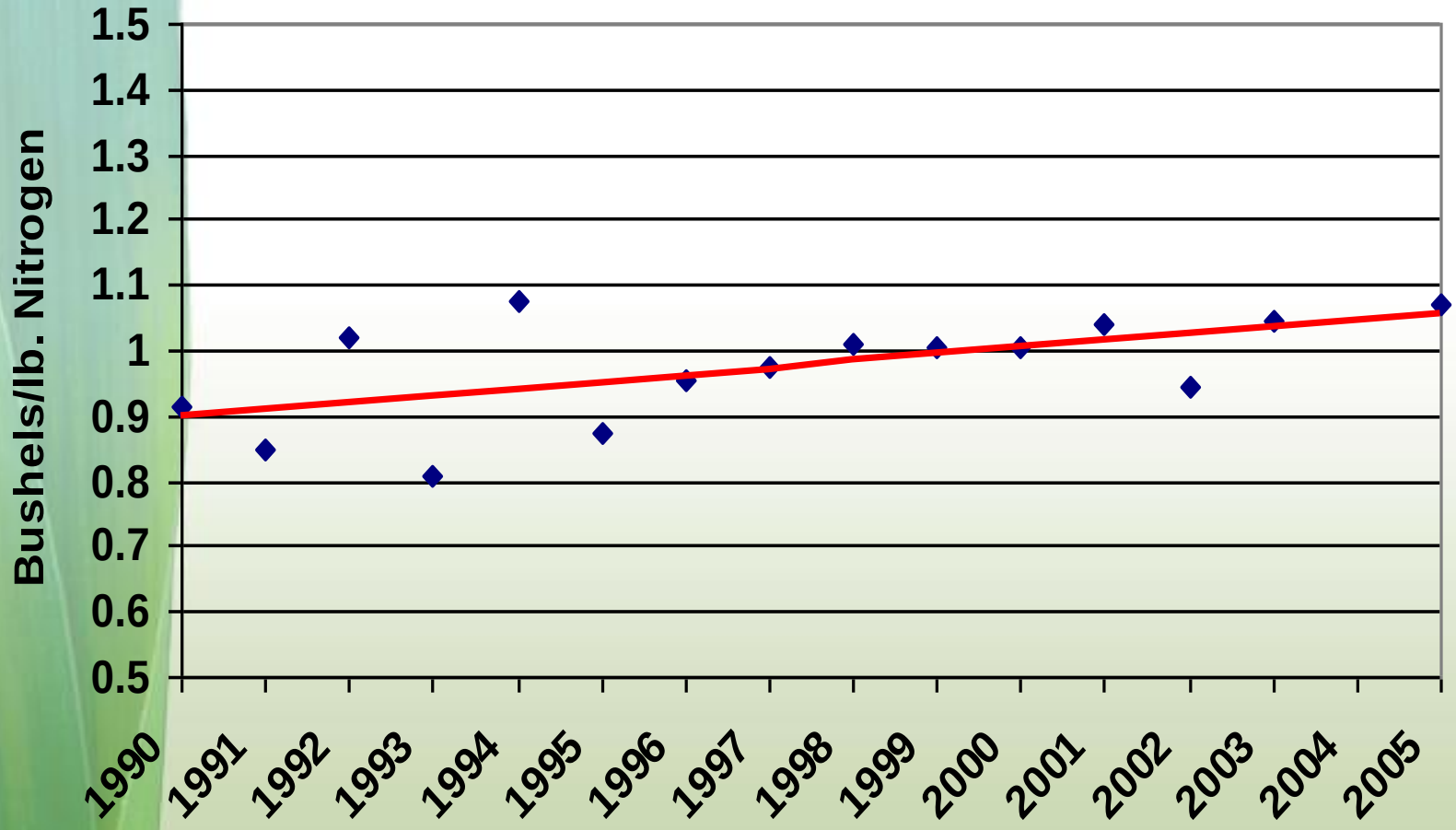
Source: USDA, NASS Agricultural Chemical Usage Report

Insecticide Usage in Corn Production



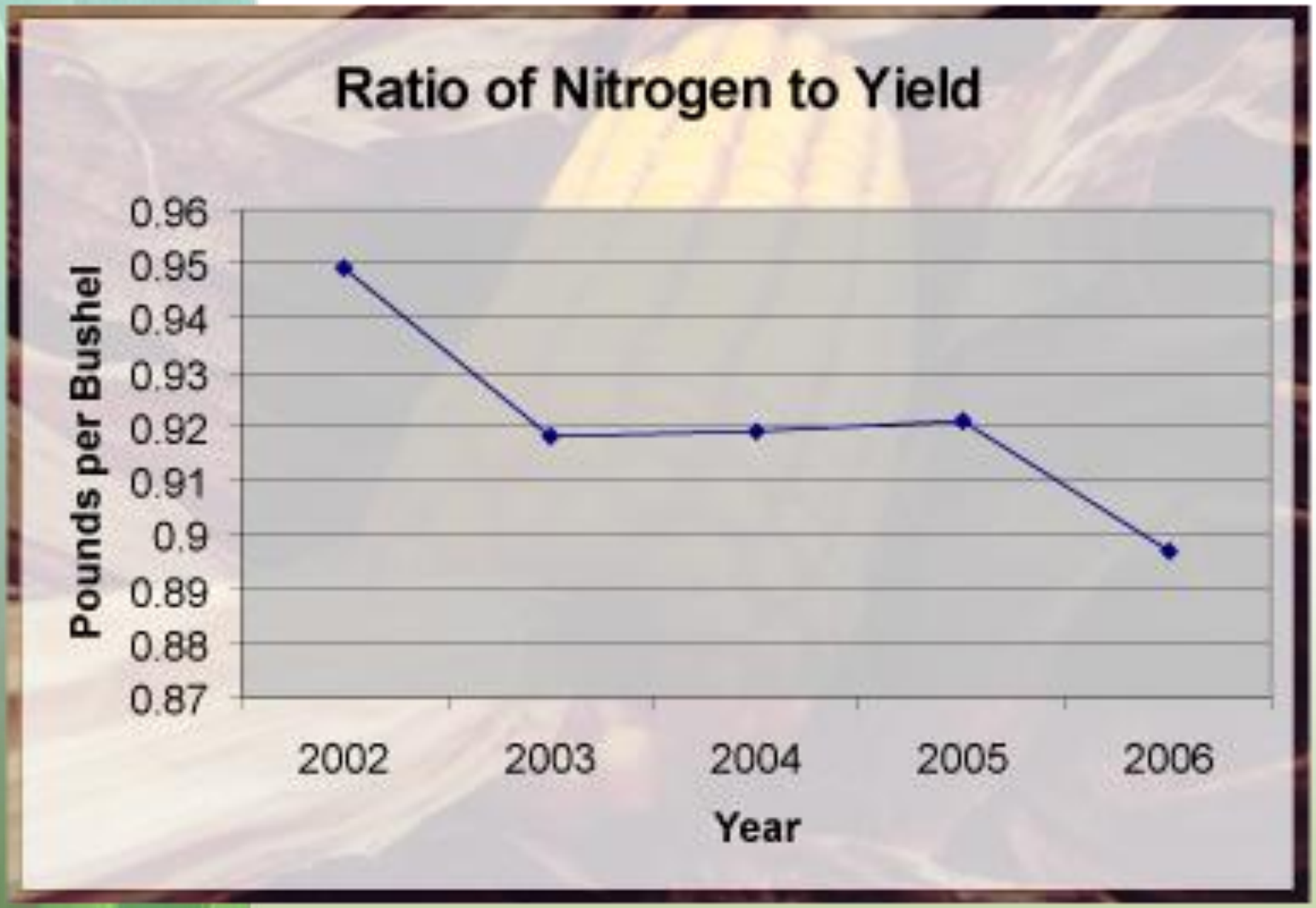
Source: USDA, NASS
Agricultural Chemical
Usage Report

Corn: Nitrogen Utilization Efficiency



Source: USDA, NASS Agricultural Chemical Usage Report

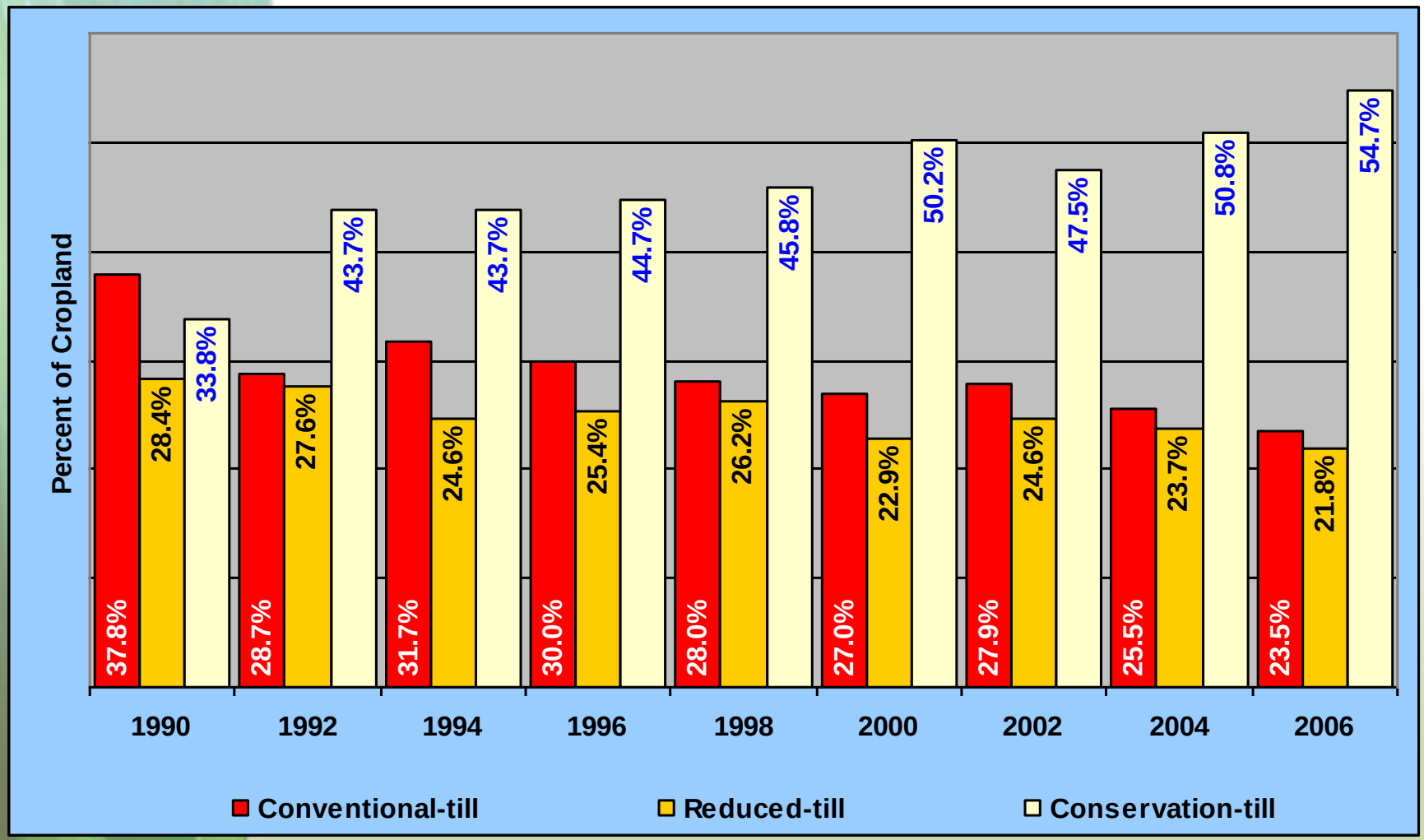
* 2004 data estimated


Ratio of Nitrogen to Yield
Pounds per Bushel
0.96
0.95
0.94
0.93
0.92
0.91
0.9
0.89
0.88
0.87
2002
2003
2004
2005
2006
Year

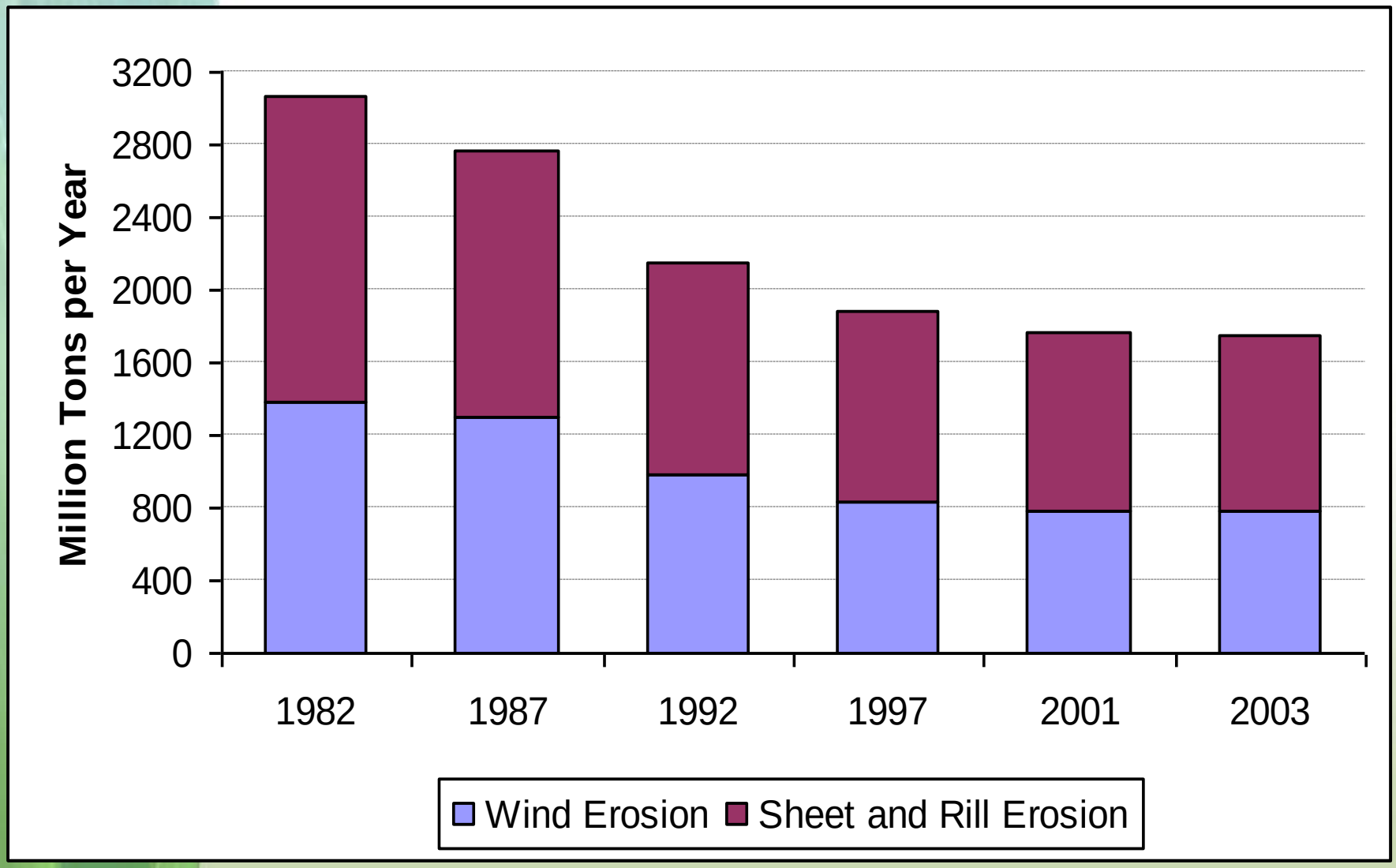
2006 CTIC Tillage Survey – Reporting

Percent Residue Cover Management

Conventional 0-15% Reduced 15-30% Conservation +30%



Erosion on U.S. Cropland by Year



Source: NRCS, January 2007

Water?

- About 4,000 gallons to produce one bushel of corn
- 3-4 Gallons to produce a gallon of ethanol
- Various permutations

Water? *(4,000 gallons per bushel of corn)*

- 85%+ of all corn in the U.S. is non-irrigated
- An acre of corn gives off 4,000 gallons of water a day in evaporation
- 11,000 gallons to grow a bushel of wheat
- 135,000 gallons to grow a ton of alfalfa

Water? *(3-4 gallons per gallon of ethanol)*

- 1,851 gallons to refine one barrel of oil (20 gallons of gas)
- 62,600 gallons to produce a ton of steel
- 28,100 gallons to process a ton of steel
- 1,500 gallons to process a barrel of beer
- 150 gallons to produce the average size Sunday newspaper

Sustainability

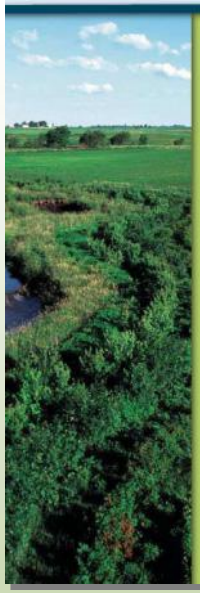
Meeting future economic and social needs while preserving environmental quality

50 NCGA 1957 - 2007

The Clean Water Act

The Clean Water Act (CWA) has far-reaching effects on America. Some of those effects have hit close to home on the farm, as producers are required to monitor nutrient application, erosion and chemical usage much more closely while improving their environment.

Part of the CWA's law sets Total Maximum Daily Loads (TMDLs), daily pollutant discharge limits for each point source and nonpoint source within an impaired waterbody. TMDLs have the potential to be a serious management issue for corn growers. However, this issue also provides a real opportunity for growers to indicate they are good stewards of the land and are concerned with water quality in their areas.



Elements of the Clean Water Act

To help understand the impact of the CWA, the National Corn Growers Association (NCGA) has broken the law into eight key parts and provides examples of how growers can adapt.

Element 1

Keep pollutants out of streams, rivers, lakes or bays.

The CWA defines pollutants as:

- sediment and soils from erosion;
- nutrients and pesticides from nutrient sewage plants, industry, city streets, home lawns, golf courses and agriculture;
- metals and chemicals from mining and industry; and
- pathogens from fecal cloriform.

Best management practices (BMPs) such as conservation tillage, field buffers, grass waterways, terraces, precision fertilizer and chemical application and other water and soil management practices reduce potential pollutants from reaching waterbodies.

Element 2

State regulatory authority establishes the designated use for each waterbody.

The CWA establishes national goals "for the protection of fish, shellfish, and wildlife" and for "recreation in and on the waters." The first major part of the CWA's *water quality standards rule* establishes the designated use. However, it is possible to change the initial designated use so that the water quality standards accurately describe the use and identify level of water quality attainable for the waterbody. States, with public input, establish the use or uses for each waterbody within its boundaries and report their designations to the Environmental Protection Agency (EPA).

Meetings to determine designated uses are open to the public. Corn growers may attend these meetings to provide input on how designated uses may affect their operation or explain to the public how their operation already meets current rules and regulations.

Contined on page 2

Creating Sustainable Outcomes for Agriculture

- American Soybean Association
- Bunge Limited
- Cargill
- Conservation Int'l
- DuPont
- General Mills
- Grocery Manufacturers/ Food Products Assocs.
- The H. John Heinz III Center for Science, Economics and the Environment
- Mars, Inc.
- McDonald's
- Monsanto
- National Corn Growers Association
- National Cotton Council of America
- The Nature Conservancy
- United Soybean Board
- Wal-Mart Stores, Inc.
- World Wildlife Fund - US

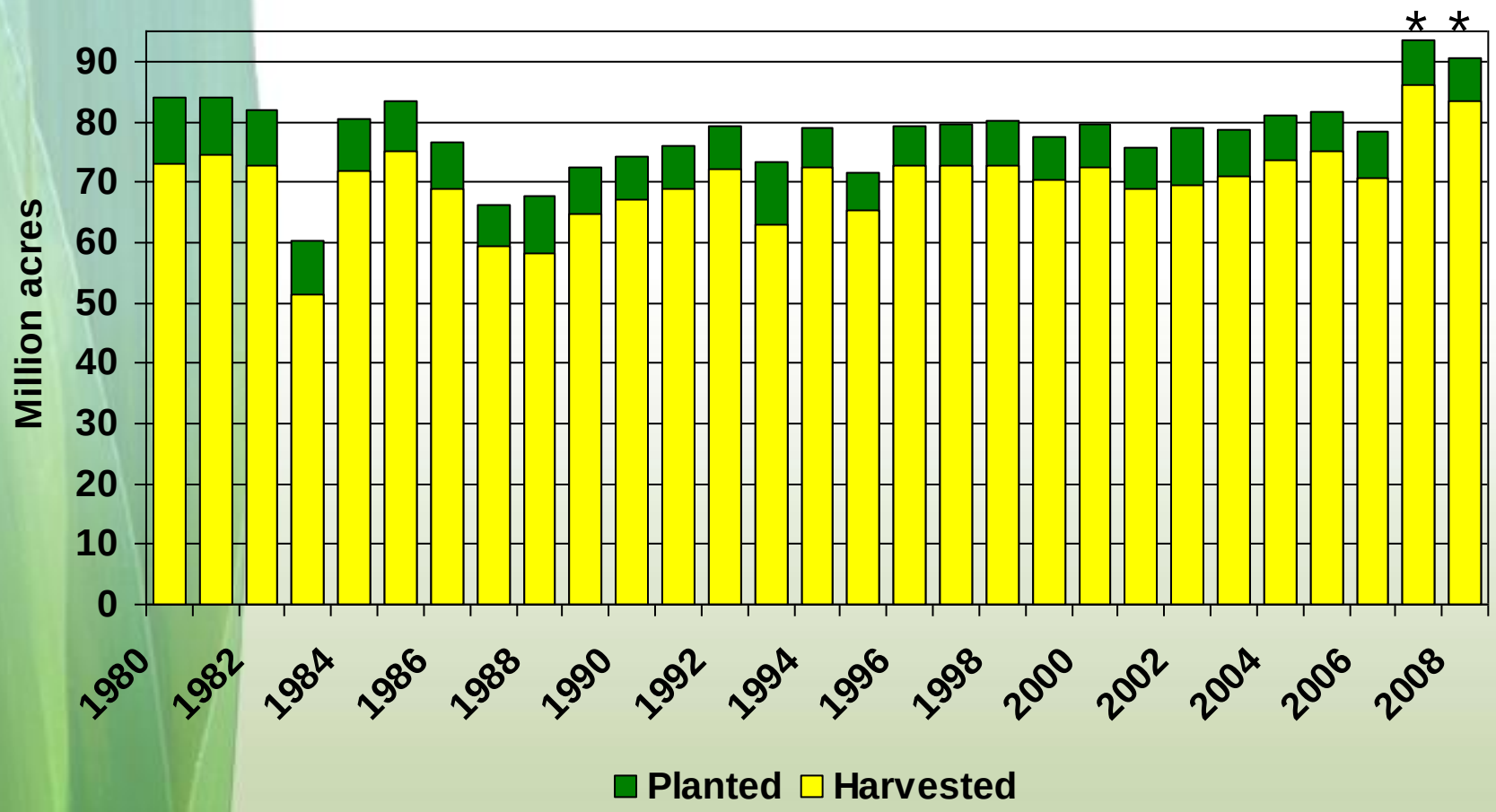
Summary

U.S. agriculture has the capability to meet U.S. and its share of world food supply needs and still make a significant contribution to domestic fuel needs in an environmentally friendly way.

Private sector business and industry investment and innovation are the keys that will help unlock this door.

Outlook……

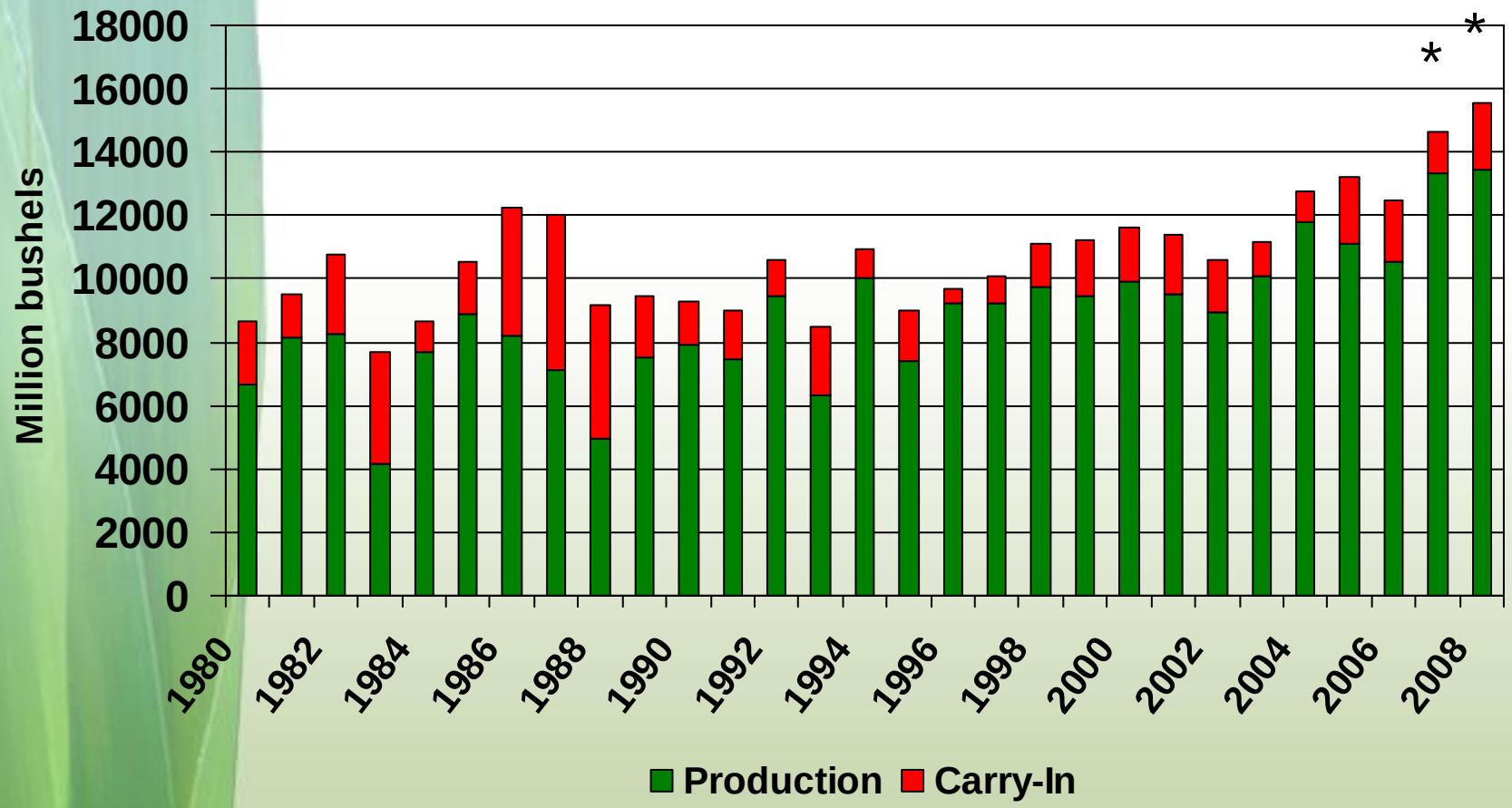
US Corn Acreage



*Projected

Source; USDA, NASS; ProExporter Network

US Corn Supply



*Projected

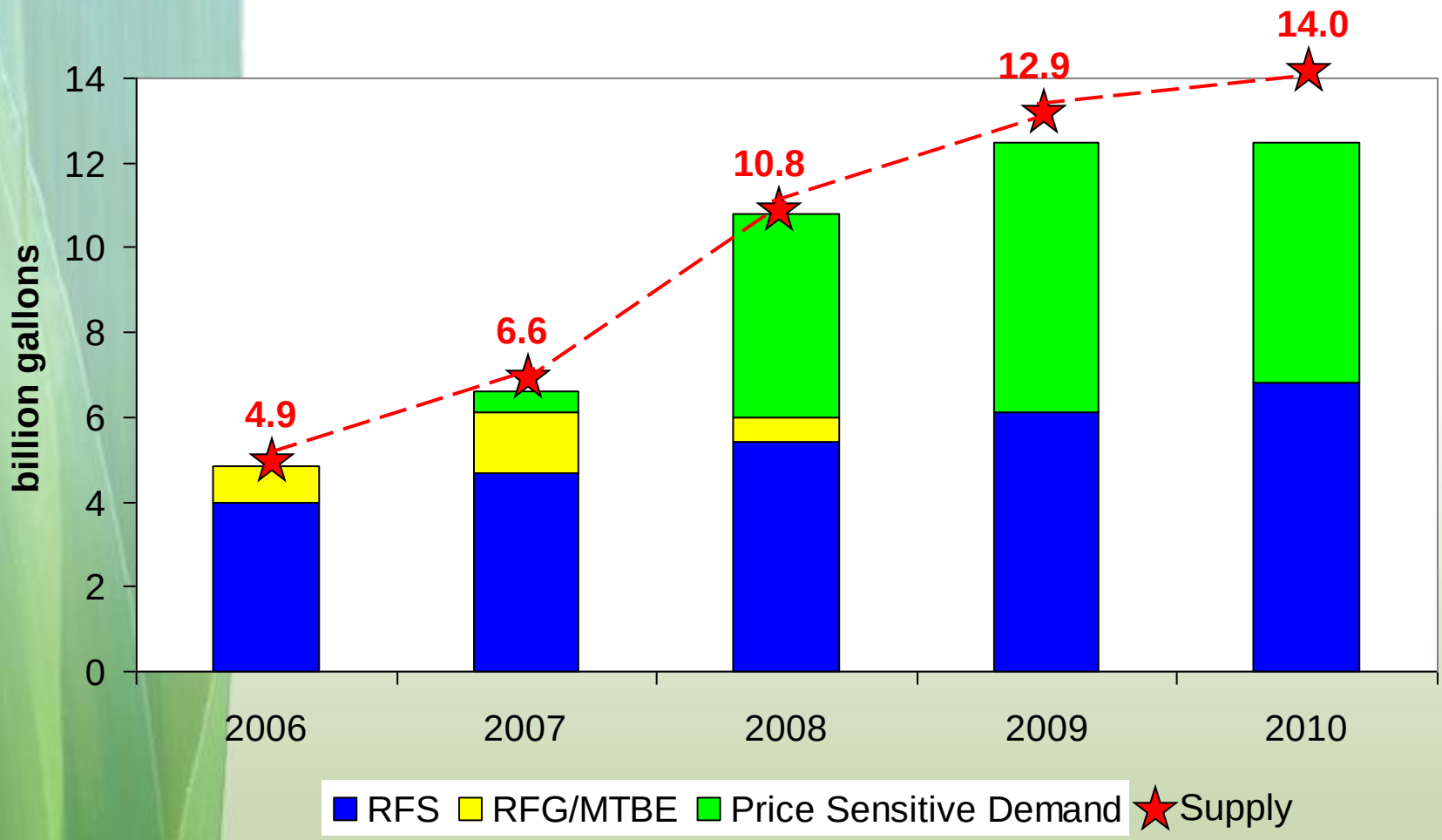
Source; USDA, ERS; ProExporter Network

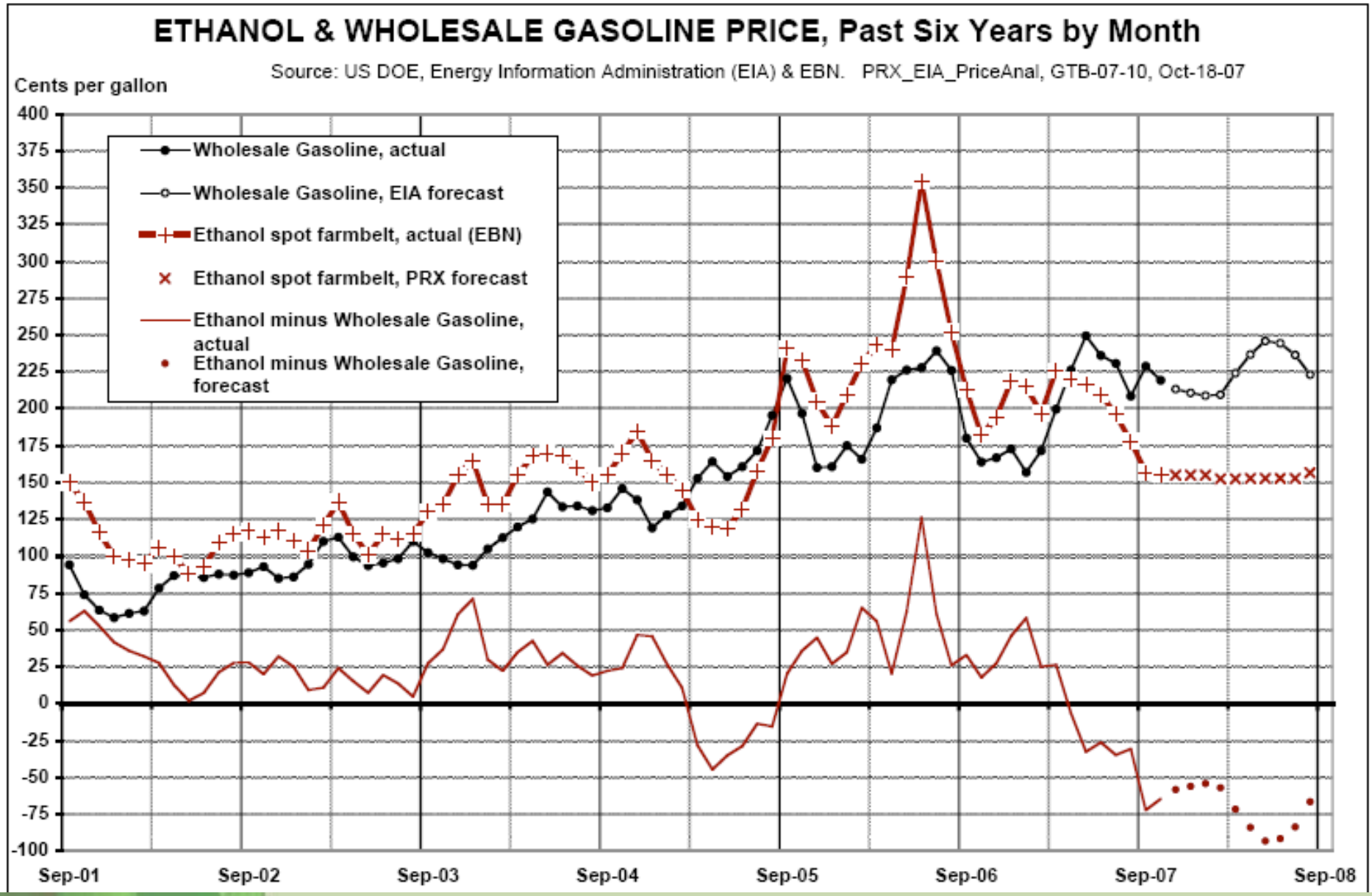
US Corn Supply and Demand

Mil bu.	2006-07	2007-08 (USDA)	2007-08 (PRX)	2008-09 (PRX)
Carry-in	1,967	1,304	1,304	2,112
Production	10,535	13,318	13,318	13,046
Supply	12,514	14,637	14,637	15,561
Feed	5,600	5,700	5,800	5,625
Other FSI	1,371	1,390	1,365	1,375
Ethanol	2,115	3,200	3,010	3,871
Exports	2,125	2,350	2,350	2,350
Carry-out	1,304	1,997	2,112	2,340

Source: ProExporter Network

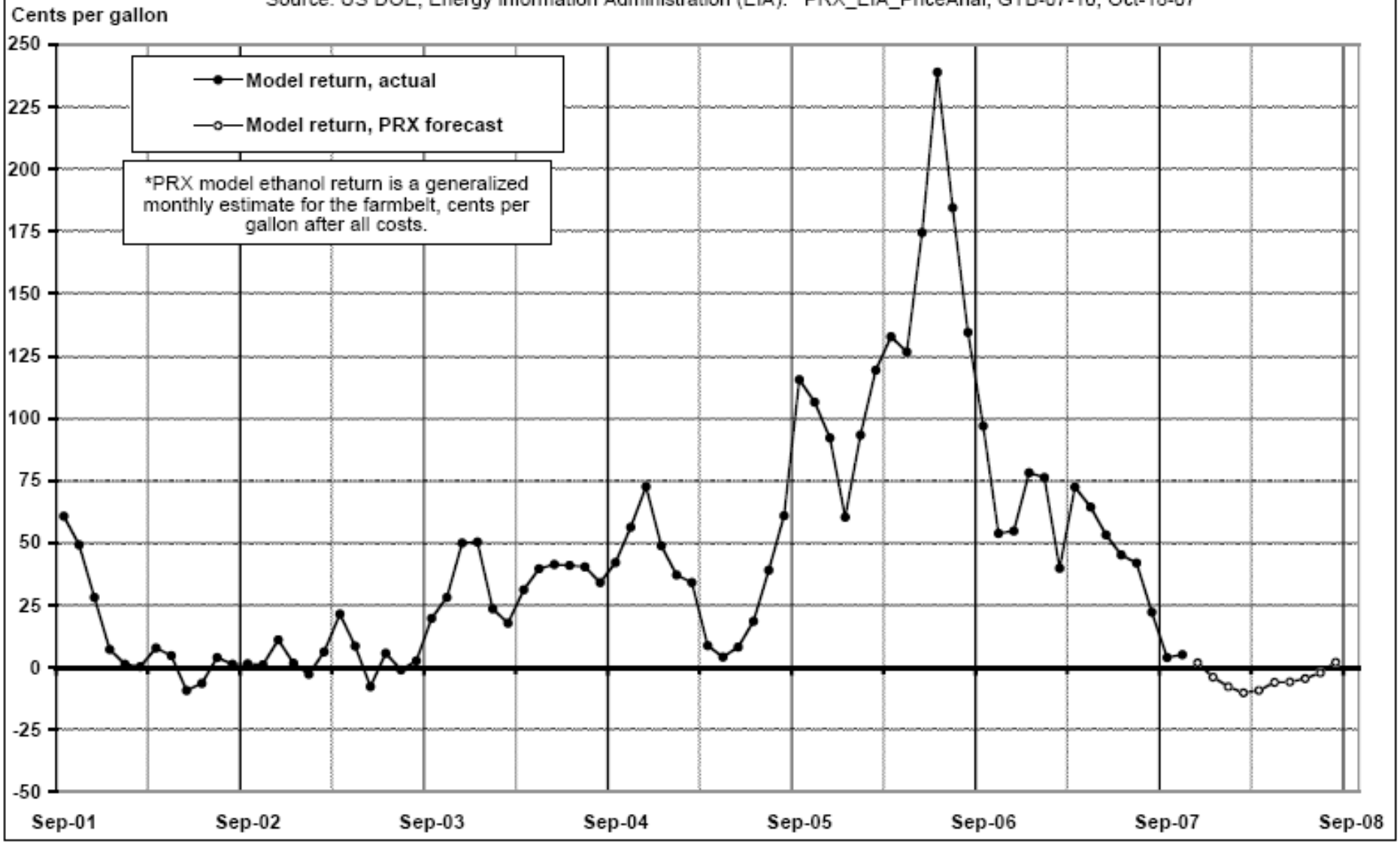
US Ethanol Supply and Demand



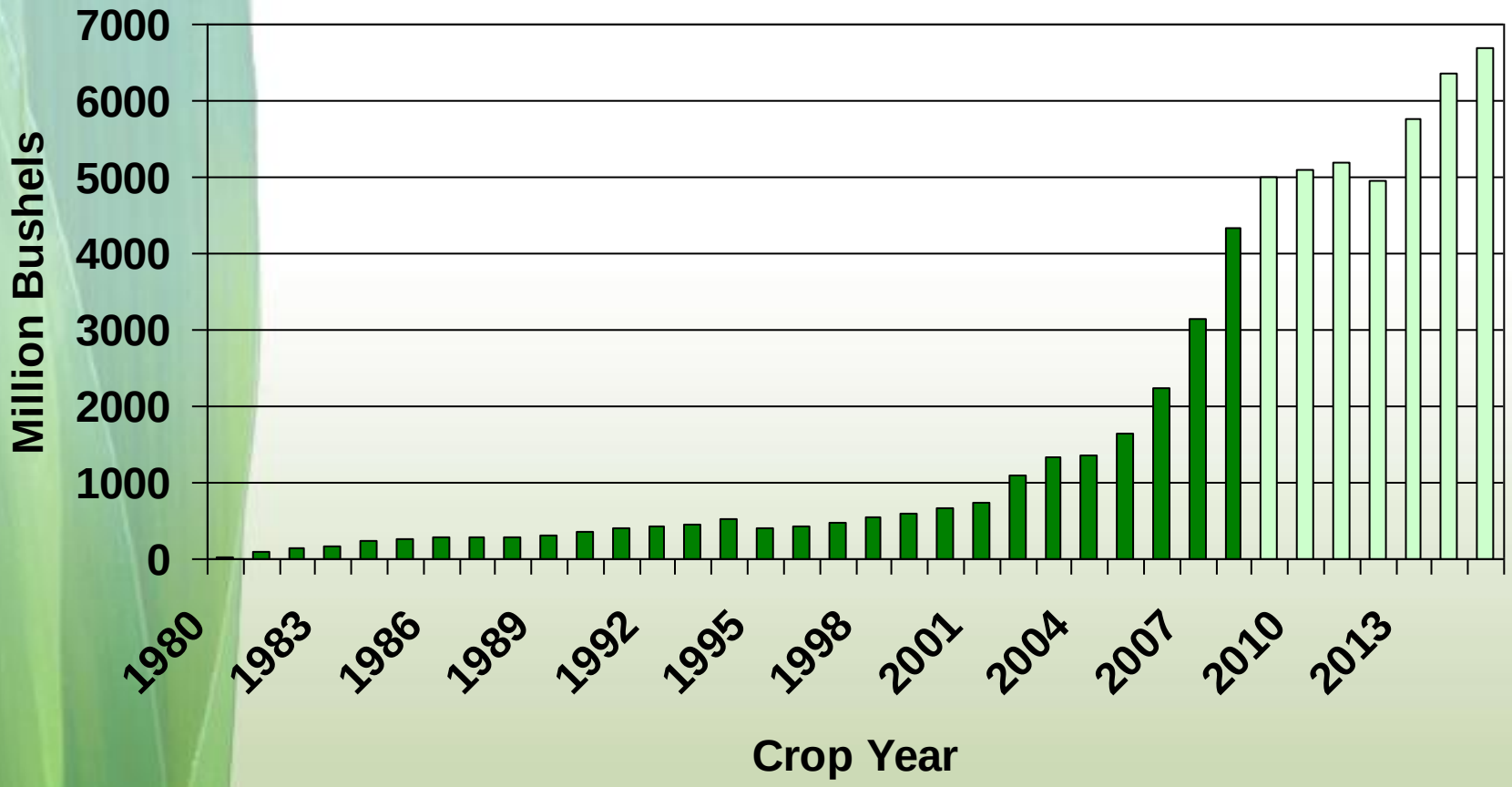

ETHANOL & WHOLESALE GASOLINE PRICE, Past Six Years by Month
Source: US DOE, Energy Information Administration (EIA) & EBN. PRX_EIA_PriceAnal, GTB-07-10, Oct-18-07
Cents per gallon
Wholesale Gasoline, actual
Wholesale Gasoline, EIA forecast
Ethanol spot farmbelt, actual (EBN)
Ethanol spot farmbelt, PRX forecast
Ethanol minus Wholesale Gasoline, actual
Ethanol minus Wholesale Gasoline, forecast
400
375
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
-25
-50
-75
-100
Sep-01
Sep-02
Sep-03
Sep-04
Sep-05
Sep-06
Sep-07
Sep-08

MODEL ETHANOL RETURN*, Past Six Years by Month

Source: US DOE, Energy Information Administration (EIA). PRX_EIA_PriceAnal, GTB-07-10, Oct-18-07



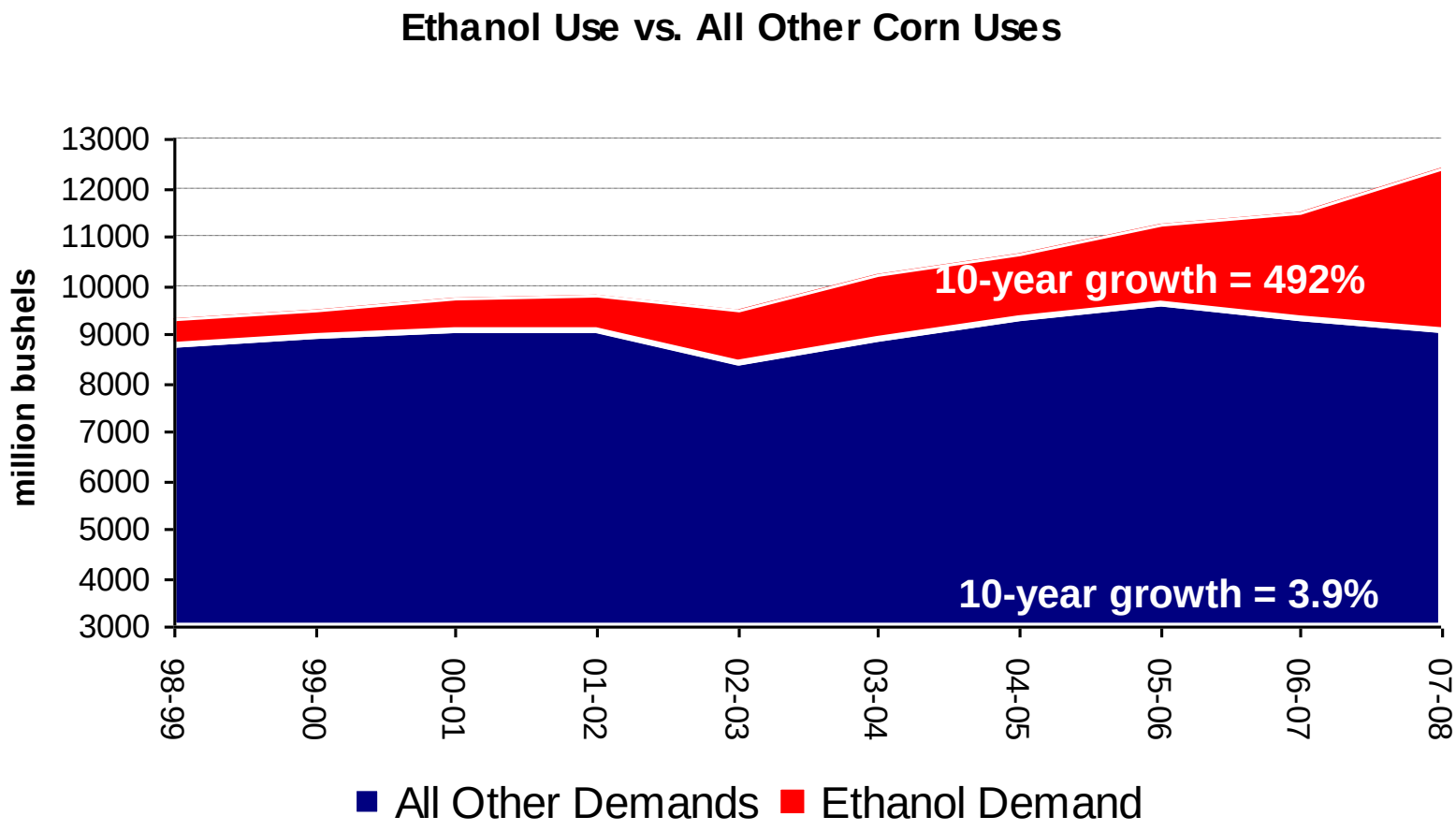
US Fuel Ethanol Demand (Long-Run)



*Projected

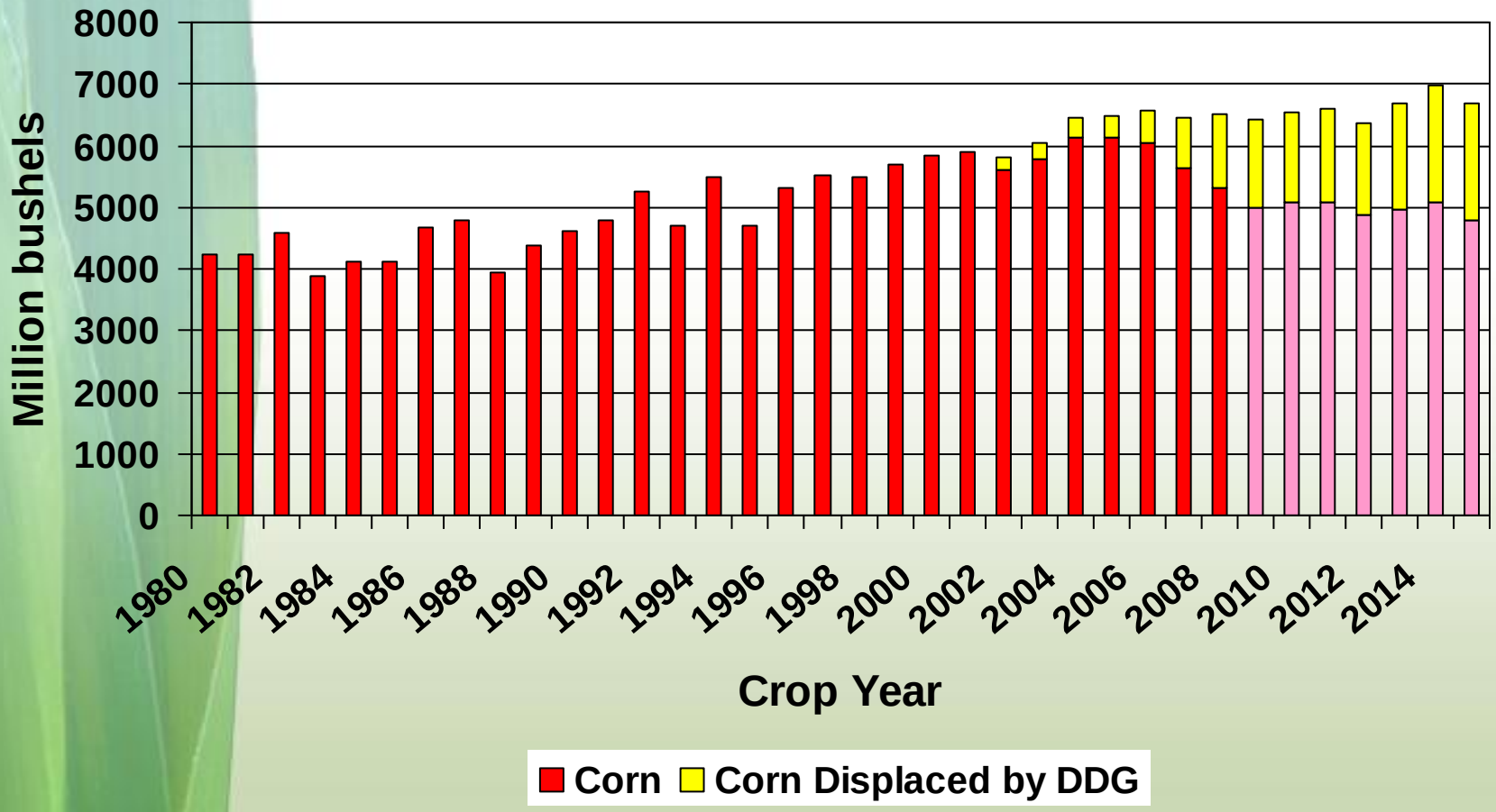
Source; USDA, ERS; ProExporter Network

Food and Feed Demand is Plateauing



Source: USDA, ERS and ProExporter Network

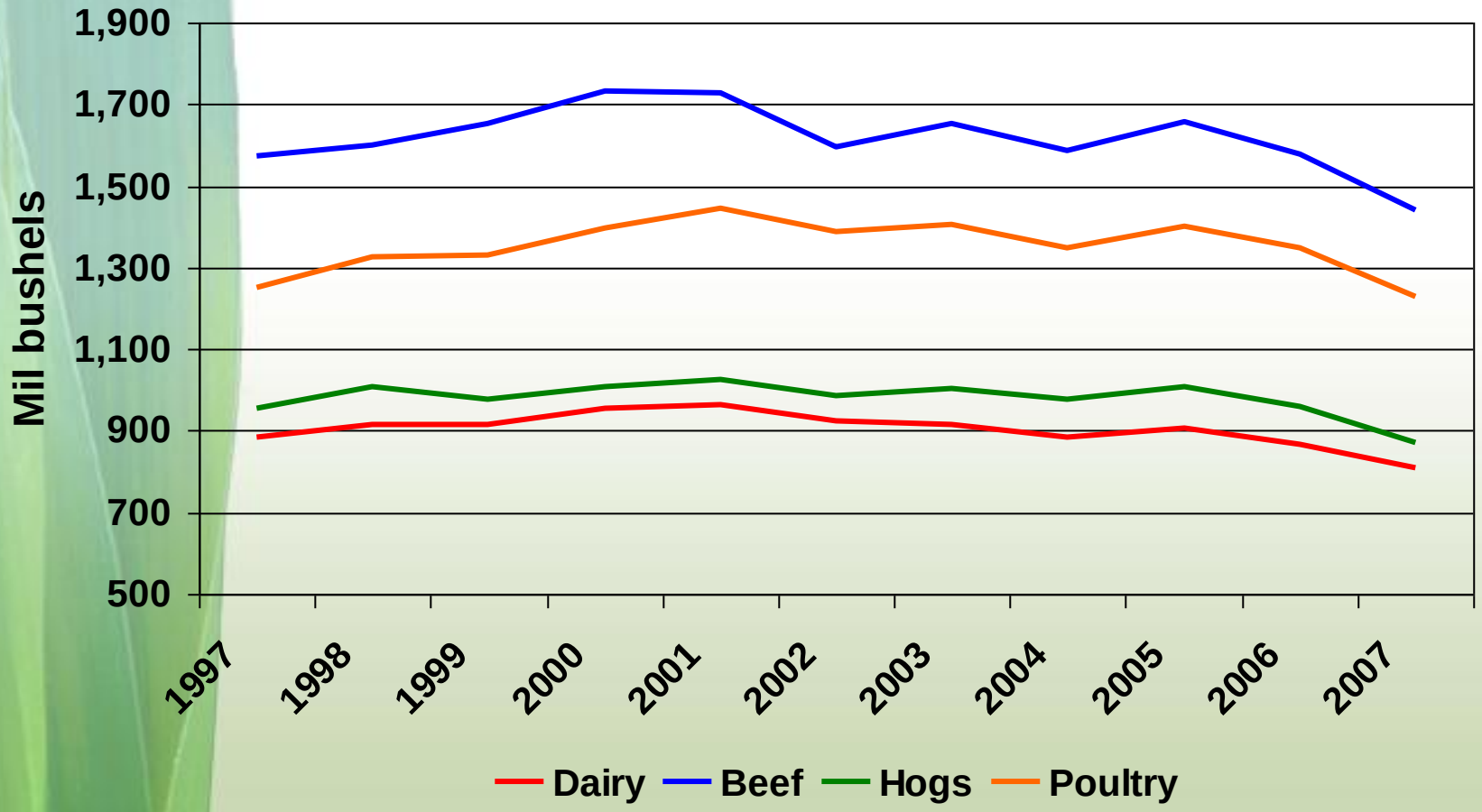
US Corn Demand – Domestic Livestock
(Long-Run)



*Projected

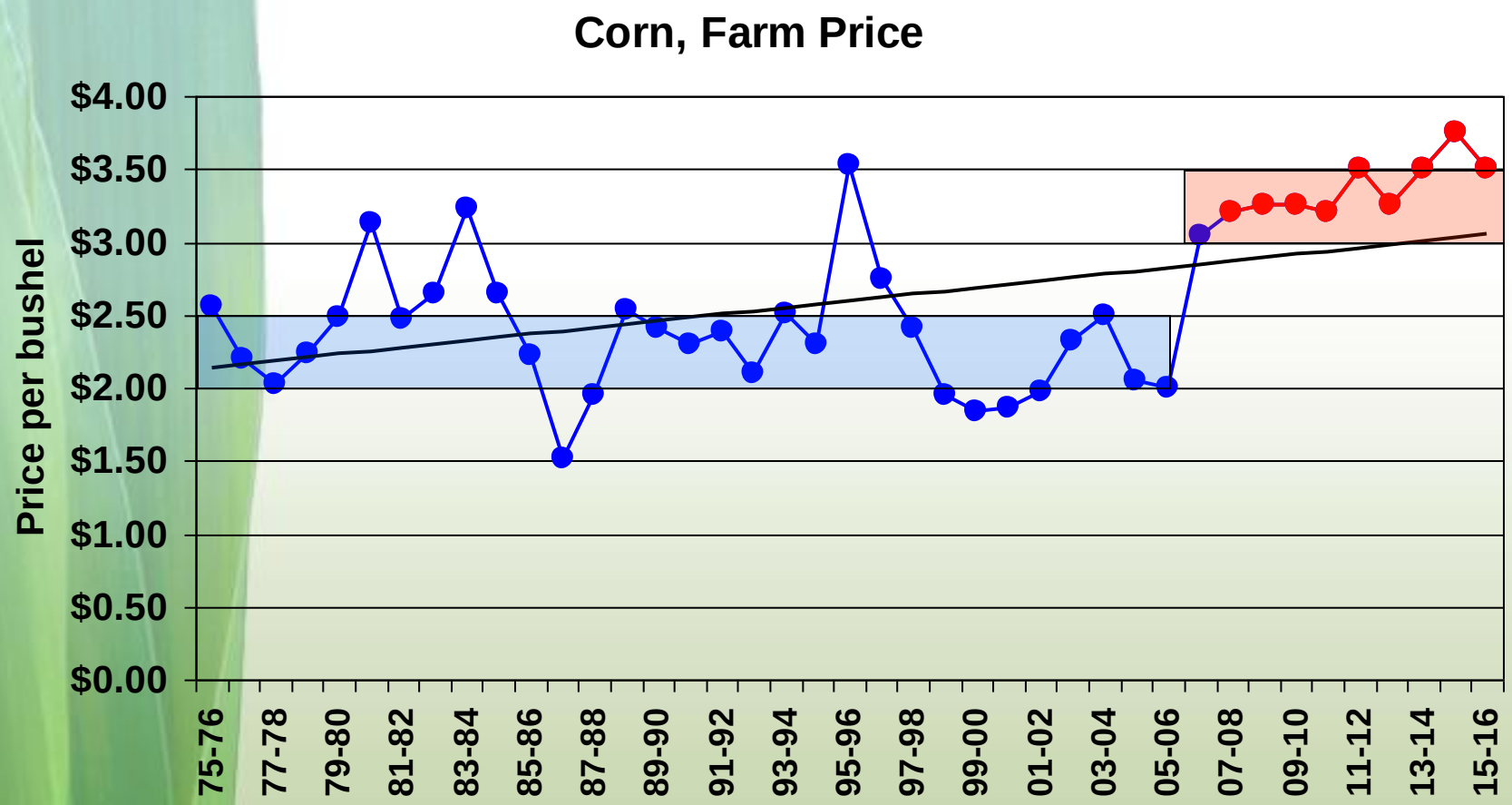
Source; USDA, ERS; ProExporter Network

Corn Demand by Species



Source: ProExporter Network

Corn Prices: A New Plateau?



Data Source: PRX

Other Near-Term Opportunities for Corn

- Plastics and Polymers
  - PLA
  - PHA
  - 1,3 PDO
- Corn Ethanol as a Platform Chemical
  - Ethyl Lactate
  - Ethyl Succinate
  - Dozens of other high-value compounds
- Corn Oil to Biodiesel
- Cellulosic Ethanol (pericarp & stover)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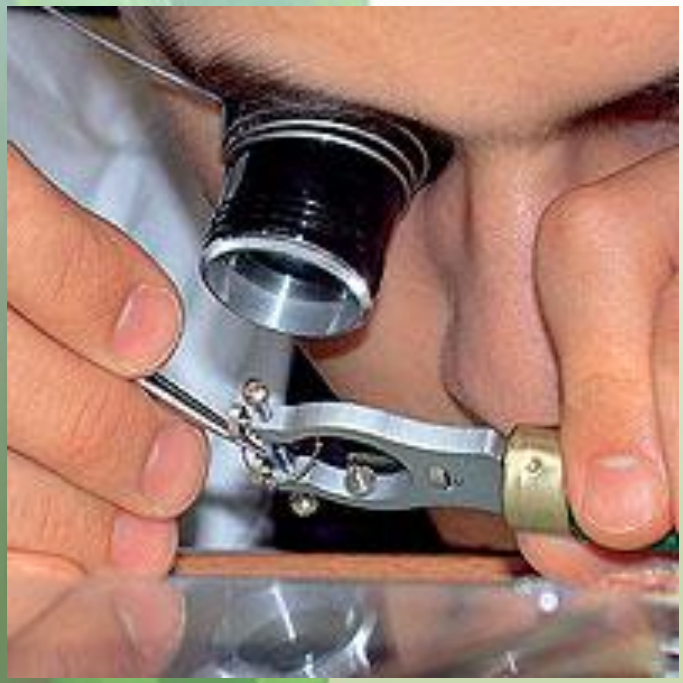
Summary

- Demand for ethanol will continue to surge through 08/09
- Corn demand for other uses likely to remain flat
- Corn yield per acre will continue accelerated growth
- Corn acres will increase incrementally
- A 14-15 billion bushel crop by 2015 seems feasible
- Distillers grains will displace more corn in feed rations
- New trait releases must not disrupt grain trade
- The “Food vs. Fuel” argument is misguided
- The corn industry has the know-how, technology and ingenuity to satisfy demand for food, feed AND fuel in an environmentally friendly way.

Horology…



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