

2010 WORLD OF CORNY



### NATIONAL CORN GROWERS ASSOCIATION

## MEETING THE CHALLENGE OF PRODUCTION

C orn is ancient; its cultivation goes back thousands of years. Yet corn today is as new as the rising sun, driven by innovation. New genetics, new technology, new ideas in nutrition, new uses and new markets have all shaped the crop we grow now.

Today, we face new challenges and new horizons. Our market is the world, and now our competition is global as well. We have the technology to produce more than ever before. However, acreage is shrinking, and regulation is increasing.

Nobody understands these facts better than U.S. corn growers. Innovation has us poised on the brink of exciting new opportunities. And we're ready for action.



Left: Darrin Ihnen President Right: Rick Tolman CEO Farmers today produce 70 percent more corn per pound of fertilizer than in the 1970s.

### CORNFORMATION

One bushel of corn weighs about 56 pounds. That means U.S. farmers produce an average of more than 9,000 pounds of corn per acre. Corn fuels the growth of nations around the world, as a food ingredient, a feedstock, a fuel, a fiber, an ingredient in building materials and pharmaceuticals, and much more.

Demand for corn is at an all-time high. We're fortunate to have enough corn for all demands food, feed, fuel and fiber. U.S.

growers have produced six of the largest crops of the past six years. The 2008/09 crop yielded an impressive 13.2 billion bushels, despite challenging harvest

conditions across the country.

Farmers don't need to keep increasing acreage to meet growing demands for corn. The advanced production power of U.S. agriculture ensures a growing supply of corn that will continue to satisfy demand for domestic use and exports. It's estimated we can grow more than 17 billion bushels on 83 million acres by 2020 – nearly 4 billion more bushels than in 2009—on acreage that is slightly higher than in 2009. There are more than 4,200 different uses for corn products and more are being found each day. These range from aspirin to shaving cream, from latex paint to disposable diapers.

Acetic and amino acids Alcoholic beverages and brewing Antibiotics Aspirin Baby food Bacon Baked goods Bakery products Baking powder Batteries Blankets and bedding Bookbinding Breadings, coatings and batters Cake, cookie, dessert mixes Candies Canned fruits, fruit fillings Caramel color Carbonated and fruit beverages Cardboard Carpet tile Cereals Chalk Charcoal briquettes Cheese spreads Chewing gum Citric acid Cleaners, detergents Coatings on paper, wood and metal Coffee whitener Condiments Confections, chocolate Corn bread Corn chips Corn flakes Color carrier for printing Cornmeal mixes Cosmetics Crayons Disposable cold drink cups, plates and cutlery Disposable diapers Dried soups Doughnuts Dusting for pizzas Dyes and inks Electroplating and galvanizing English muffins Enzymes Fireworks Fermentation processes Food acids Food coloring Food packaging Fritters Frosting and icing Frozen and dried eggs Frozen pudding Glues and adhesives

Gravy mixes Hams Hot dogs, bologna Hush puppies Ice cream and sherbets Industrial chemicals Industrial filters and water Industrial sweetener Insecticides Instant breakfast foods Instant pudding mix Instant tea Jams, jellies, preserves Laminated building materials Leather tanning Lubricants Mannitol Marshmallows Matches Meat products Metal plating Muffins Organic solvents Ore and oil refining Paints Pancake mixes Paper, recycled paper Peanut butter Pet food Pharmaceuticals Pickles and relishes Plastics Potato chips Powdered mixes Powdered sugar Precooked frozen foods Ravon Rubber tires Salad dressings Salt Sausage Seasoning mixes Shampoo Shaving cream Shoe polish Snack foods Soaps and cleaners Spoon bread Spray cooking oil Sports and active wear Spices Soups Surgical dressings Textiles Theatrical makeup Tomato sauces Vinegar Wallboard and wallpaper Wine Worcestershire sauce Yeast

## AMERICA'S GRAIN, THE WORLD'S BOUNTY

Today, there are billions of hungry mouths in the world, and the numbers are increasing.



Food consumption is rising in developing countries. The Food and Agriculture Organization of the United Nations reports that it will continue to rise over the next 30 years.

New production technologies offer great promise for increasing productivity to meet the growing demands of world consumers.

For decades, corn growers have worked for continuous improvement and greater efficiency. Growers have invested in significant advances in corn production technology that have led to major increases in bushels produced, and – at the same time – reduced corn acres under cultivation.



In 2009, corn growers produced 461 percent more corn than in 1939 on 2 percent less acreage.

#### AMERICA LEADS THE WORLD

American farmers have continued to be the world's top exporter of corn—satisfying the demands of customers around the world. Corn exports have stayed steady or expanded and – through exports of distiller's grains – the ethanol industry is helping satisfy foreign demand for high-protein, high-energy livestock feed. The United States exported about 4.6 million metric tons of distiller's grains in the 2008-2000 marketing upper

2009 marketing year.

There is more food per capita today on a global scale than ever before, according to the Food and Agriculture Organization of the United Nations. And corn growers are investing in international marketing efforts. Too often, the problem is getting the food where it needs to be due to lack of infrastructure, access to capital, political unrest and other factors that result in global hunger.

## CORNFORMATION

The U.S. produces about 40 percent of the world's corn – using only 20 percent of the total area harvested in the world. According to USDA, just 19 cents of every consumer food dollar is attributed to the actual cost of food inputs. Americans still spend a smaller percentage of their income on food than almost any other developed nation.

For example, a standard box of corn flakes contains approximately 10 ounces of corn, or about 1/90th of a bushel. Even when corn is priced at \$5 per bushel, that's only about a nickel's worth of corn.

Corn is a more significant ingredient for meat, dairy and egg production. Still, corn represents

- An ear of corn averages 800 kernels in 16 rows.
- A pound of corn consists of approximately 1,300 kernels.
- 100 bushels of corn produces approximately 7,280,000 kernels.

marketing costs (the difference between the farm value and consumer spending for food at grocery stores and restaurants) have risen from 67 percent in the 1980s to 80 percent today. By contrast, agricultural productivity has increased 200 percent from 1948 to 1994, with no increase in overall inputs.

The U.S. Department of Agriculture reported that corn farmers produced an average of 165.2 bushels per acre last year. Just 20 years ago, the average was 84.6 bushels per acre; productivity has nearly doubled. Only a

# CORN DELIVERS VALUE

a relatively small share of these products in terms of retail price. It takes about 3.6 pounds of corn to produce one pound of pork (live weight), about 32.1 cents worth of corn when corn is \$5 per bushel.

Labor costs account for about 38 cents of every dollar a consumer spends on food. Packaging, transportation, energy, advertising and profits account for 24 cents of the food dollar with energy costs having an even greater impact as oil prices rise. According to the Federal Reserve Bank of Kansas City,



small portion of that is sweet corn for human consumption. More than 99 percent is field corn which is ground dry and used for livestock feed, ethanol production and other products.

#### CORNFORMATION

From one bushel of corn you can make . . . 32 pounds of starch, OR 33 pounds of sweetener, OR 2.8 gallons of ethanol fuel AND 11.4 pounds of gluten feed AND 3 pounds of gluten meal AND 1.6 pounds of corn oil. Now, as always, corn growers understand that meeting the demands of a growing world market cannot come at the expense of ecological health, human safety or economic viability. True sustainability encompasses environmental, economic and social factors.

Corn farmers have reduced total fertilizer use by 10 percent since 1980.

Corn growers are mindful of the need to balance environmental stewardship with the need for a long-term, dependable food and energy supply and the necessity for long-term profitability in farming. Every year, farmers are adopting new management practices to improve the environmental sustainability of their land.

Water quality is a critical issue across the country. Corn isn't as water-intensive as many other crops; only about 11 percent of corn acreage was irrigated in 2008. Soil management also has a direct impact on corn yield levels, food quality and safety, and the environment.

#### CORNFORMATION

Through a process called evapotranspiration, farmland planted in corn gives off more water than is used in corn crop irrigation.

According to USDA, a producer saves at least 3.5 gallons of fuel per acre by reducing tillage. On a farm with 1,000 acres of cropland, these savings add up to 3,500 gallons of diesel fuel per year.

## CREATING AN ENVIRONMENT FOR GROWTH

#### CONSERVATION MEETS INNOVATION

By leaving crop residue for field cover and eliminating tillage trips, farmers protect the soil from water and wind erosion, conserve moisture, reduce nutrient runoff, improve wildlife habitat and limit output of labor, fuel and machinery.



### CORNFORMATION

According to the USDA, one acre of corn removes about 8 tons of carbon dioxide from the air in a growing season, and – at 180 bushels per acre – produces enough oxygen to supply a year's needs for 131 people.

This is called conservation tillage. Better soil quality, increased soil organic matter and greater moisture holding capacity highlight the value of modern tillage practices. Conservation tillage also reduces pesticide and fertilizer runoff.

No-till planting is the most costeffective practice to reduce tillage trips to protect and enhance the environment. Long-term or continuous no-till significantly reduces soil erosion by retaining a cover of crop residue on the soil surface.

- No-till acres have increased 35 percent to 55 million acres since biotech crops were introduced
- Reduces soil erosion one billion tons per year
- Saves \$3.5 billion in water treatment and waterway maintenance
- Saves farmers 309 million gallons of fuel per year
- Improves wildlife habitat

Source: Council for Biotechnology Information



As a practice, true farm sustainability in the United States is demonstrated by family farms dating back for generations, and promising to extend to future generations. Individuals or families own 95 percent of U.S. corn farms.

## NEW IDEAS IN GENETICS AND NUTRITION

B iotechnology in corn will help to feed the world of the future. Today our planet is home to 6 billion people; the United Nations estimates world population will surpass 8 billion by the year 2030.



Biotechnology helps increase yields while decreasing the need for inputs such as water and fertilizer. It provides improved pest control methods that are environmentally friendly, including drastic reductions in the need for pesticides. In fact, biotechnology provides farmers a wider variety of crop production options that are safer for humans, animals and the environment than conventional methods.



In 1940, one American farmer produced enough to feed 19 people, according to the National Agricultural Statistics Service. Today, one farmer feeds over 155 people worldwide. New technology, and old-fashioned elbow grease promise to push that figure to 200 in the near future. The introduction of herbicide tolerant corn hybrids in the late 1990s has resulted in better weed control, higher yields, and the introduction of minimum and no-till practices. Also, farmers use significantly fewer pesticides and make fewer trips across the field. It adds up to big savings in equipment, fuel and labor-related costs: \$8-\$13 per acre for a corn grower.

The genes that control a number of specific corn traits have been identified. A gene on chromosome #1 causes the ears of corn to be big and to grow on a few short branches. A gene on the second chromosome causes more rows of kernels to grow, yielding more food per corn plant. A gene on the fourth chromosome causes corn kernels to have small, soft casings.

#### CROP NUTRITION IS NEW, TOO

Advanced fertilizers are part of the biotech movement as well. A new generation of crop fertilizers provides more nutrition to each plant, with less waste and less runoff.

## CORNFORMATION

Corn is produced on every continent of the world, except Antarctica. Corn is a member of the plant family of grasses. Each kernel of corn has a highly nutritious outer layer, called the pericarp. This is fused with the seed coat, typical of grasses. Although most corn has yellow kernels, they may also be black, bluish-gray, purple, green, red or white.



ing them by grinding and centrifuge. In addition, refiners produce starches, sweeteners and ethanol — all made from the starch portion of the corn.

Cornstarch, which is derived from the endosperm of the corn kernel, is a mainstay of the corn refining industry. It has a wide

# THE KERNEL OF INNOVATION

A corn kernel is made up of four major components: starch, fiber, protein and oil. Corn can be processed in different ways to tap into these components and use them in all kinds of products. There are two basic methods employed in processing corn kernels. They are known as "dry milling" and "wet milling."

In dry milling, corn is separated into flour, corn meal, grits and other products by soaking corn kernels in water, then removing the germ for processing into oil. The remaining parts of the kernel are ground and sieved into various fractions. When ground, corn yields more flour with much less bran than wheat does.

Wet milling is the process by which corn is separated into starch (syrup, ethanol, cornstarch), germ (oil), and fiber and gluten (animal feed) by soaking corn kernels in water before separatCorn is an ingredient in many food items like cereal, peanut butter, snack foods and soft drinks. range of industrial and food applications. Over 90 percent of the starch Americans use is produced from corn. Corn sweeteners supply more than 56 percent of the U.S. nutritive sweetener market.

All in all, one little kernel of corn does an awful lot of work. No wonder corn leads all other crops in value and volume of production.









## WHO CARES FOR THE LAND?

The people who live on the land...America's farmers. They grow more food now compared with a few decades ago, yet use barely half the energy and fewer resources for every bushel produced. Because for farmers, the land is more than their livelihood. It's their legacy.

AmericasFarmers.com

# **CORN PRODUCTION**

ONE BUSHEL (56 lb.) OF CORN **PROVIDES:** 

**31.5** lbs. of starch

or **33** lbs. of sweetener

or

2.8 gal. of fuel ethanol

or

22.4 lbs. of PLA fiber/polymer

#### plus

17.5 lbs. of distillers dried grains with solubles\*

13.5 lbs. of gluten feed\*\*

**2.6** lbs. of gluten meal\*\*

and

1.5 lbs. of corn oil\*\*

\*In dry grind ethanol process. \*\*In wet mill ethanol process. Gluten feed is 20 percent protein and gluten meal is 60 percent protein.

U.S. CORN AT A **GLANCE**, 2009

86.5 million acres planted

79.6 million acres harvested

13.1 billion bushels produced

165.2 bushels yield per acre

\$48.66 billion corn crop value

\$3.70

average price per bushel

TOTAL DIGESTABLE NUTRIENTS Cracked corn: 90%

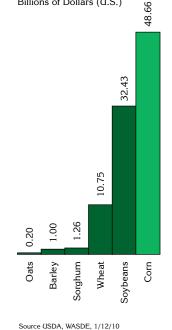
Shelled corn: 88%

Ear corn: 90%

COMPONENTS OF YELLOW DENT CORN Wet Weight 3.8% Corn Oil ----; Water 19.2% Protein & Fiber

#### **U.S. SELECT CROP** VALUE, 2009

Billions of Dollars (U.S.)

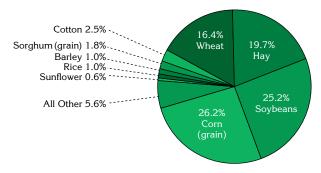


#### **U.S. CORN PRODUCTION, 2009**

|                |                  | ,                    |                    |                     |
|----------------|------------------|----------------------|--------------------|---------------------|
|                |                  | Acres                | Average            | Total               |
|                | Acres<br>Planted | Harvested            | Yield              | Production<br>(1000 |
|                | (1000s)          | for Grain<br>(1000s) | (bushels/<br>acre) | bushels)            |
| Alabama        | 280              | 250                  | 108                | 27,000              |
| Arizona        | 50               | 20                   | 175                | 3,500               |
| Arkansas       | 430              | 410                  | 148                | 60,680              |
| California     | 550              | 160                  | 180                | 28,800              |
| Colorado       | 1,100            | 990                  | 153                | 151,470             |
| Connecticut    | 26               |                      |                    |                     |
| Delaware       | 170              | 163                  | 145                | 23,635              |
| Florida        | 70               | 37                   | 100                | 3,700               |
| Georgia        | 420              | 370                  | 140                | 51,800              |
| Idaho          | 300              | 80                   | 180                | 14,400              |
| Illinois       | 12,000           | 11,800               | 175                | 2,065,000           |
| Indiana        | 5,600            | 5,460                | 171                | 933,660             |
| lowa           | 13,700           | 13,400               | 182                | 2,438,800           |
| Kansas         | 4,100            | 3,860                | 155                | 598,300             |
| Kentucky       | 1,220            | 1,150                | 165                | 189,750             |
| Louisiana      | 630              | 610                  | 132                | 80,520              |
| Maine          | 28               |                      |                    |                     |
| Maryland       | 470              | 425                  | 145                | 61,625              |
| Massachusetts  | 17               |                      |                    | ,                   |
| Michigan       | 2,350            | 2,100                | 148                | 310,800             |
| Minnesota      | 7,600            | 7,150                | 175                | 1,251,250           |
| Mississippi    | 730              | 695                  | 126                | 87,570              |
| Missouri       | 3,000            | 2,920                | 153                | 446,760             |
| Montana        | 72               | 26                   | 152                | 3,952               |
| Nebraska       | 9,150            | 8,850                | 178                | 1,575,300           |
| Nevada         | 4                |                      |                    |                     |
| New Hampshire  | 15               |                      |                    |                     |
| New Jersey     | 80               | 70                   | 143                | 10,010              |
| New Mexico     | 130              | 50                   | 185                | 9,250               |
| New York       | 1,070            | 595                  | 134                | 79,730              |
| North Carolina | 870              | 800                  | 117                | 93,600              |
| North Dakota   | 1,950            | 1,750                | 119                | 208,250             |
| Ohio           | 3,350            | 3,140                | 174                | 546,360             |
| Oklahoma       | 390              | 320                  | 105                | 33,600              |
| Oregon         | 60               | 32                   | 215                | 6,880               |
| Pennsylvania   | 1,350            | 920                  | 143                | 131,560             |
| Rhode Island   | 2                |                      |                    |                     |
| South Carolina | 335              | 320                  | 111                | 35,520              |
| South Dakota   | 5,000            | 4,700                | 153                | 719,100             |
| Tennessee      | 670              | 590                  | 148                | 87,320              |
| Texas          | 2,350            | 1,960                | 130                | 254,800             |
| Utah           | 65               | 17                   | 155                | 2,635               |
| Vermont        | 91               |                      |                    |                     |
| Virginia       | 480              | 330                  | 131                | 43,230              |
| Washington     | 170              | 105                  | 215                | 22,575              |
| West Virginia  | 47               | 30                   | 126                | 3,780               |
| Wisconsin      | 3,850            | 2,930                | 153                | 448,290             |
|                |                  |                      |                    |                     |
| Wyoming        | 90               | 45                   | 140                | 6,300               |

Source USDA, NASS, Crop Production 2009 Summary, 1/12/10

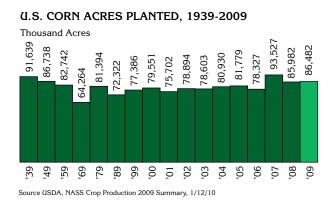
#### **U.S. ALL CROP ACRES HARVESTED, 2009**



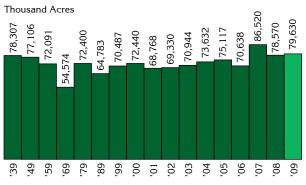
Thousand Acres

| Corn (grain)        | 79,630 | Sunflower           | 1,954 | Tobacco           | 354   |
|---------------------|--------|---------------------|-------|-------------------|-------|
| Corn (silage)       | 5,605  | Oats                | 1,379 | Flaxseed          | 314   |
| Soybeans            | 76,407 | Dry Edible<br>Beans | 1,463 | Lentils           | 407   |
| Hay                 | 59,755 | Sugar Beets         | 1,145 | Rye               | 252   |
| Wheat               | 49,868 | Peanuts             | 1,081 | Safflower         | 166   |
| Cotton              | 7,691  | Canola              | 814   | Sweet<br>Potatoes | 98    |
| Sorghum (grain)     | 5,520  | Potatoes            | 1,045 | Peppermint        | 70    |
| Sorghum<br>(silage) | 254    | Sugar Cane          | 878   | Mustard<br>Seed   | 50    |
| Barley              | 3,113  | Dry Edible Peas     | 838   | Hops              | 40    |
| Rice                | 3,103  | Proso Millet        | 293   | Other             | 42    |
| Total               |        |                     |       | 303               | 3,626 |

Source USDA, NASS Crop Production 2009 Summary, 1/12/10



#### U.S. CORN ACRES HARVESTED, 1939-2009

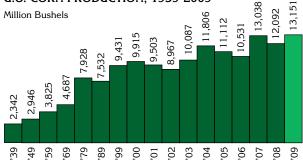


Source USDA, NASS Crop Production 2009 Summary, 1/12/10

U.S. AVERAGE CORN YIELDS, 1939-2009 165.2 Bushels per Acre 153.9 150.7 147.9 49.1 160. 136.9 138.2 42 29.3 33. 116.3 ß .60 85.9 53. 38.2 29. 49 59
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Source USDA, NASS Crop Production 2009 Summary, 1/12/10

#### U.S. CORN PRODUCTION, 1939-2009



Source USDA, NASS Crop Production 2009 Summary, 1/12/10



\*\* Projected for crop year 9/09 - 8/10 Source (JSDA, WAOB, World Agriculture Supply & Demand Estimate 1/12/10

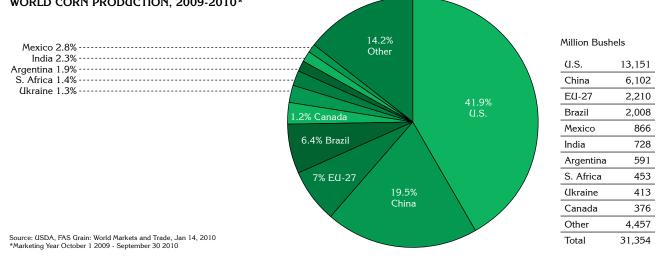
#### U.S. CORN CROP VALUE, 1939-2009



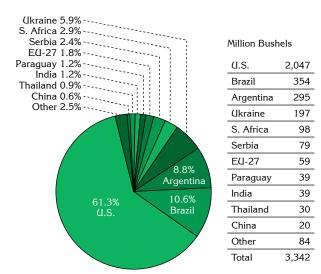
CORN PRODUCTION

9

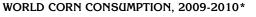
#### WORLD CORN PRODUCTION, 2009-2010\*



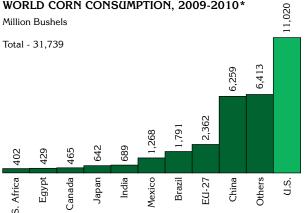
#### WORLD CORN EXPORTS, 2009-2010\*



Source: USDA, FAS Grain: World Markets and Trade, Jan 14, 2010 \*Marketing Year October 1 2009- September 30 2010

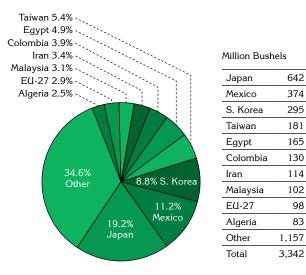


Million Bushels



Source: USDA, FAS Grain: World Markets and Trade, Jan 14, 2010 \*Marketing Year October 1 2009- September 30 2010

#### WORLD CORN IMPORTS, 2009-2010\*



642

374

295

181

165

130

114

102

98

83

Source: USDA, FAS Grain: World Markets and Trade, Jan 14, 2010 \*Marketing Year October 1 2009- September 30 2010

## LEADING U.S. CORN EXPORT MARKETS

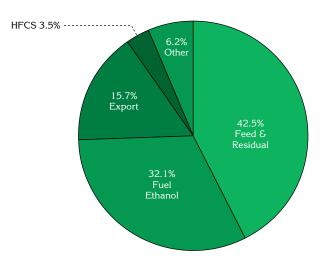
Million Bushels

|               | 2006-07 | 2007-08 | 2008-09 |
|---------------|---------|---------|---------|
| Japan         | 595     | 578     | 618     |
| Mexico        | 345     | 387     | 309     |
| S Korea       | 159     | 337     | 205     |
| Taiwan        | 170     | 151     | 142     |
| Egypt         | 133     | 123     | 92      |
| Canada        | 81      | 124     | 72      |
| Colombia      | 128     | 116     | 56      |
| Venezuela     | 20      | 38      | 47      |
| Dominican Rep | 47      | 43      | 39      |
| Cuba          | 21      | 32      | 28      |
| Other         | 494     | 584     | 249     |
| Total         | 2,125   | 2,437   | 1,858   |

Source USDA, ERS Feed Outlook, 1/14/10

# **CORN CONSUMPTION**

#### U.S. CORN USAGE BY SEGMENT, 2009

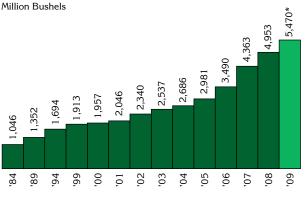


#### Million Bushels

| Feed & Residual |                          | 5,550  |
|-----------------|--------------------------|--------|
| Exp             | port                     | 2,050  |
|                 | Fuel Ethanol             | 4,200  |
|                 | High-Fructose Corn Syrup | 460    |
|                 | Starch                   | 230    |
| FSI             | Sweeteners               | 230    |
|                 | Cereal/Other             | 193    |
|                 | Beverage Alcohol         | 134    |
|                 | Seed                     | 23     |
| Total FSI       |                          | 5,470  |
| Tota            | al Uses                  | 13,070 |
|                 |                          |        |

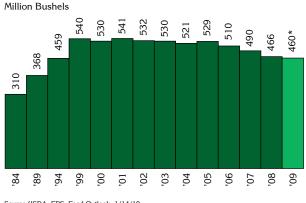
Source USDA, ERS, Feed Outlook, 1/10 \*Crop year ending 8/31/10

#### FOOD, SEED & INDUSTRIAL (FSI) USAGE, 1984-2009



Source USDA, ERS, Feed Outlook, 1/14/10 \*Crop year ending 8/31/10

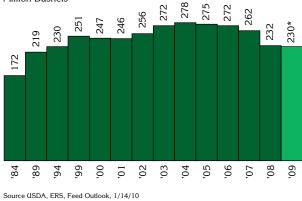
### HIGH-FRUCTOSE CORN SYRUP USAGE, 1984-2009



Source USDA, ERS, Feed Outlook, 1/14/10 \*Crop year ending 8/31/10

#### STARCH USAGE, 1984-2009

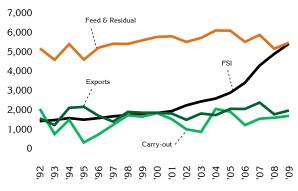
Million Bushels



<sup>\*</sup>Crop year ending 8/31/10

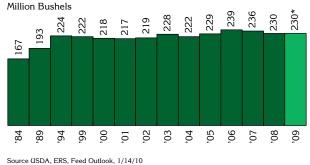
#### U.S. CORN USAGE BY SEGMENT, 1992-2009

Million Bushels



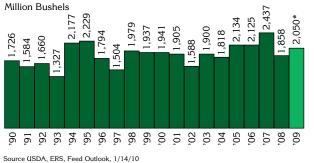
Source USDA, ERS Feed Outlooks

#### SWEETENER USAGE, 1984-2009

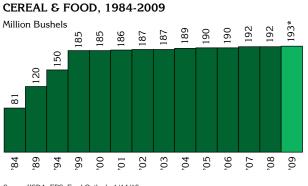


\*Crop year ending 8/31/10

### U.S. CORN EXPORTS, 1990-2009

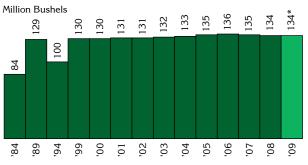


\* Projections



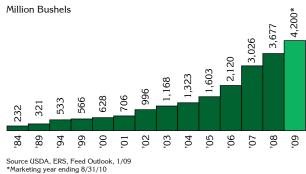
Source USDA, ERS, Feed Outlook, 1/14/10 \*Crop year ending 8/31/10





Source USDA, ERS, Feed Outlook, 1/14/10 \*Crop year ending 8/31/10





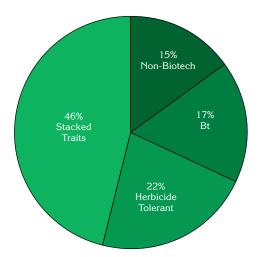
#### **U.S. ETHANOL PRODUCTION FACILITIES, 2009**

Million Gallons

|              | # of Plants | Installed Capacity |
|--------------|-------------|--------------------|
| Arizona      | 1           | 55                 |
| California   | 7           | 194.5              |
| Colorado     | 4           | 125                |
| Georgia      | 3           | 100.4              |
| lowa         | 40          | 3293               |
| Idaho        | 2           | 54                 |
| Illinois     | 15          | 1350               |
| Indiana      | 12          | 908                |
| Kansas       | 13          | 491.5              |
| Kentucky     | 2           | 35.4               |
| Louisiana    | 1           | 1.5                |
| Michigan     | 5           | 265                |
| Minnesota    | 22          | 1136.6             |
| Missouri     | 6           | 261                |
| Mississippi  | 1           | 54                 |
| North Dakota | 6           | 353                |
| Nebraska     | 25          | 1523               |
| New Mexico   | 1           | 30                 |
| New York     | 2           | 164                |
| Ohio         | 7           | 538                |
| Oregon       | 2           | 148                |
| South Dakota | 15          | 1016               |
| Tennessee    | 2           | 177                |
| Texas        | 4           | 250                |
| Wisconsin    | 10          | 498                |
| Wyoming      | 2           | 6.5                |
| Total        |             | 13,028.4           |

Source Renewable Fuels Association

#### BIOTECH SHARE OF U.S. CORN ACRES PLANTED, 2009



#### Thousand Acres

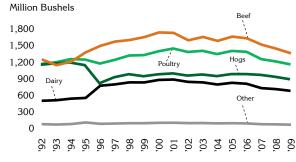
| Non-Biotech        | 12,972 |
|--------------------|--------|
| Bt                 | 14,702 |
| Herbicide Tolerant | 19,026 |
| Stacked Traits     | 39,782 |
| Total              | 86,482 |

Source USDA, NASS, Acreage Report, 6/09

#### PERCENTAGE OF BIOTECH ACREAGE, 2007-2009

|       | Bt |    |    | Herbicide<br>Tolerant |    | Stacked<br>Traits |    | All Biotech<br>Hybrids |    |    |    |    |
|-------|----|----|----|-----------------------|----|-------------------|----|------------------------|----|----|----|----|
|       | 07 | 08 | 09 | 07                    | 08 | 09                | 07 | 08                     | 09 | 07 | 08 | 09 |
| IL    | 19 | 13 | 10 | 15                    | 15 | 15                | 40 | 52                     | 59 | 74 | 80 | 84 |
| IN    | 12 | 7  | 7  | 17                    | 16 | 17                | 30 | 55                     | 55 | 59 | 78 | 79 |
| IA    | 22 | 16 | 14 | 19                    | 15 | 15                | 37 | 53                     | 57 | 78 | 84 | 86 |
| KS    | 25 | 25 | 24 | 36                    | 30 | 29                | 21 | 35                     | 38 | 82 | 90 | 91 |
| MI    | 19 | 15 | 13 | 22                    | 24 | 20                | 19 | 33                     | 42 | 60 | 72 | 75 |
| MN    | 26 | 19 | 23 | 32                    | 29 | 24                | 28 | 40                     | 41 | 86 | 88 | 88 |
| MO    | 30 | 27 | 23 | 19                    | 21 | 17                | 13 | 22                     | 37 | 62 | 70 | 77 |
| NE    | 31 | 27 | 26 | 23                    | 24 | 23                | 25 | 35                     | 42 | 79 | 86 | 91 |
| ND    | 29 | 24 | 22 | 37                    | 34 | 30                | 22 | 31                     | 41 | 88 | 89 | 93 |
| ОН    | 9  | 12 | 16 | 12                    | 17 | 17                | 20 | 37                     | 35 | 41 | 66 | 67 |
| SD    | 16 | 7  | 6  | 34                    | 30 | 25                | 43 | 58                     | 65 | 93 | 95 | 96 |
| ТХ    | 22 | 20 | 21 | 37                    | 31 | 30                | 20 | 27                     | 33 | 79 | 78 | 84 |
| WI    | 19 | 14 | 13 | 23                    | 26 | 27                | 22 | 35                     | 37 | 64 | 75 | 77 |
| Other | 20 | 20 | 20 | 33                    | 32 | 30                | 14 | 22                     | 28 | 67 | 74 | 78 |
| Total | 21 | 17 | 17 | 24                    | 23 | 22                | 28 | 40                     | 46 | 73 | 80 | 85 |

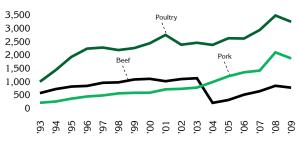
#### CORN FED BY LIVESTOCK GROUP, 1992-2009



\* Crop year 9/01/09 to 8/31/10. Source PRX

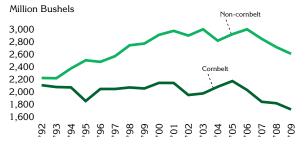
#### U.S MEAT EXPORTS BY ANIMAL GROUP, 1993-2009\*

Thousand Metric Tons



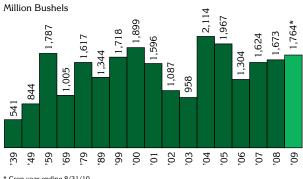
\* Estimates. Source PRX, USDA, FAS Livestock and Poultry: World Markets and Trade, 10/09

#### U.S. CORN FED BY REGION, 1992-2009



\* ProExporter Network estimates the equivalent of 189, 253, 329, 342, 569, 914, 934, and 1,068 million bushels of corn fed to livestock was displaced by DDQ, in the 02-03, 03-04, 04-05, 05-06, 06-07, 07-08, 08-09, and 09-10 crop years, respectively. Source PRX

#### U.S. CORN ENDING STOCKS, 1939-2009



\* Crop year ending 8/31/10 Source USDA, ERS, Feed Outlook, 1/14/10

#### NCGA

#### National Corn Growers Association

632 Cepi Drive, Chesterfield, MO 63005 P: 636-733-9004 • F: 636-733-9005 Ken Colombini, Director of Communications www.ncga.com

#### NCGA Washington, DC Office

122 C St. NW, #510 Washington, DC 20001-2109 P: 202-628-7001 • F: 202-628-1933 Janice Tolley, Communications Manager

Commodity Classic P: 636-677-4157 • srsi@swbell.net Peggy Findley, Commodity Classic Show Director www.commodityclassic.com

#### CORN PROCESSING

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North American Millers Association

600 Maryland Ave. SW, #825 W Washington, DC 20024 P: 202-484-2200 • F: 202-488-7416 generalinfo@namamillers.org Terri Long, Director of Communications & Meetings • tlong@namamillers.org

#### CORN INPUT

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#### CropLife America

1156 15th St. NW #400 Washington, DC 20005 P: 202-296-1585 • F: 202-463-0474 Rex Runyon, Vice President of Communications rrunyon@croplifeamerica.org www.croplifeamerica.org

#### The Fertilizer Institute

Union Center Plaza 820 First St. NE #430, Washington, DC 20002 P: 202-515-2721 • F: 202-962-0572 Estelle Grasset, Director of Communications egrasset@tfi.org • www.tfi.org

#### **CORN EXPORTS**

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#### FOOD AND SNACK CORN

#### Popcorn Board

401 N Michigan Ave, Chicago, IL 60611-4267 P: 312-644-6610 • F: 312-321-5150 Genny Bertalmio, Marketing Manager gbertalmio@smithbucklin.com

#### Snack Food Association

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#### **CORN FUTURES**

#### CME Group

Communications Department 141 W. Jackson Blvd., Chicago, IL 60604 P: 312-466-4613 • F: 312-341-3306 Allan Schoenberg, Director, Corporate Communications Allan.schoenberg@cmegroup.com

#### **RENEWABLE FUELS**

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#### Growth Energy

777 N. Capitol St. NE, Suite 805 Washington, DC 20002 P: 202-545-4000 • F: 202-545-4001 Christopher Thorne, Director of Public Affairs cthorne@growthenergy.org www.growthenergy.org

#### **Renewable Fuels Association**

One Massachusetts Ave, NW #820 Washington, DC 20001 P: 202-289-3835 • F: 202-289-7519 Matt Hartwig, Dir. of Communications mhartwig@ethanolrfa.org • www.ethanolrfa.org

#### LIVESTOCK AND FEED

American Feed Industry Association 2101 Wilson Blvd., #916 Arlington, VA 22201 P: 703-558-3579 • F: 703-524-1921 Anne Keller, Director of Communications akeller@afia.org • www.afia.org

National Cattlemen's Beef Association 9110 E. Nichols Ave., Centennial, CO 80112 P: 303-694-0305 • F: 303-694-2851 www.beef.org

National Grain & Feed Association 1250 Eye St. NW, #1003 Washington, DC 20005 P: 202-289-0873 • F: 202-289-5388 Randy Gordon, VP of Communications & Government Relations • www.ngfa.org

#### National Pork Board

1776 NW 114th St., Clive, Iowa 50325 P: 515-223-2600 • F: 515-223-2646 Mike Wegner, VP of Communications mwegner@pork.org • www.pork.org

#### National Pork Producers Council

122 C Street NW, Suite #875 Washington, DC 20001 P: 202-347-3600 • F: 202-347-5265 Dave Warner, Dir. of Communications warnerd@nppc.org • www.nppc.org

#### US Poultry & Egg Association

1530 Cooledge Road Tucker, GA 30084-7303 P: 770-493-9401 • F: 770-493-9257 Larry Brown, Director of Communications Ibrown@poultryegg.org www.poultryegg.org

#### STATE ORGANIZATIONS

Alabama Soybean and Corn Growers Association P.O. Box 1069 • Madison, AL 35758 P: 256-882-3369 Mark Hall, Executive Director mark@alabamasoycorn.org

Alabama Wheat and Feed Grain Producers P.O. Box 11000 Montgomery, AL 36191-0001 P: 800-392-5705 ext 4216 • F: 334-284-3957 Buddy Adamson, Director badamson@alfafarmers.org

Arkansas Corn and Grain Sorghum Board P.O. Box 31 • Little Rock, AR 72203-0031 P: 501-228-1297 • F: 501-228-1846 Matt King, Executive Director matt.king@arfb.com

Colorado Corn Growers Association Colorado Corn Administrative Committee 127 22nd Street • Greeley, CO 80631 P: 970-351-8201• F: 970-351-8203 info@coloradocorn.com Mark Sponsler, CEO msponsler@coloradocorn.com www.coloradocorn.com

#### Georgia Corn Growers Association P.O. Box 748 • Tifton, GA 31793 P: 229-386-3006 • F: 229-386-7308 Dewey Lee, State Executive Coordinator deweylee@uga.edu

**Georgia Agricultural Commodity Commission** 328 Agricultural Building Capitol Square • Atlanta, GA 30334 P: 404-656-3678 • F: 404-656-9380 Marcia Crowley, Agricultural Manager

Illinois Corn Growers Association P.O. Box 1623 • Bloomington, IL 61702-1623 P: 309-557-3257 • F: 309-827-0916 ilcorn@ilcorn.org Rodney Weinzierl, Executive Director weinzier@ilcorn.org • www.ilcorn.org

#### Illinois Corn Marketing Board

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#### Indiana Corn Growers Association

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#### Iowa Corn Growers Association

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#### Kansas Corn Growers Association Kansas Corn Commission

P.O. Box 446 • Garnett, KS 66032 P: 785-448-6922 • F: 785-448-6932 Jere White, Executive Director jwhite@ksgrains.com www.ksgrains.com/corn

#### Kentucky Corn Growers Association

Kentucky Corn Promotion Council P.O. Box 90 • Eastwood, KY 40018 P: 502-243-4150 • 800-326-0906 F: 502-243-4149 info@kycorn.org Laura Knoth, Executive Director laura@kycorn.org • www.kycorn.org

#### Louisiana Soybean and Grain Research and Promotion Board

Promotion Board P.O. Box 95004 Baton Rouge, LA 70895-9004 P: 225-922-6209 • F: 225-922-6229 Kyle McCann, Corresponding Secretary kylem@lbf.org

#### Maryland Grain Producers Association Maryland Grain Producers Utilization Board 53 Slama Road • Edgewater, MD 21037

P: 410-956-5771 • F: 410-956-0161 mgp@marylandgrain.com Lynne Hoot, Executive Director lynnehoot@aol.com www.marylandgrain.com

#### Michigan Corn Growers Association

Corn Marketing Program of Michigan 13750 S. Sedona Parkway, Suite 5 Lansing, MI 48906-8101 P: 517-668-CORN (2676) • F: 517-668-2670 corninfo@micorn.org Jody Pollok-Newsom, Executive Director jpollok@micorn.org • www.micorn.org

#### Minnesota Corn Growers Association Minnesota Corn Research and Promotion Council

738 First Avenue East • Shakopee, MN 55379 P: 952-233-0333 • F: 952-233-0420 info@mncorn.org Tim Gerlach, Executive Director gerlach@mncorn.org • www.mncorn.org

#### Mississippi Corn Growers Association Mississippi Corn Promotion Board

P.O. Box 9555 • Mississippi State, MS 39762 P: 662-325-2311 • F: 662-325-8742 Dr. Erick Larson • elarson@pss.msstate.edu

#### Missouri Corn Growers Association

Missouri Corn Merchandising Council 3118 Emerald Lane Jefferson City, MO 65109 P: 573-893-4181 • F: 573-893-4612 mcga@mocorn.org Gary Marshall, CEO gmarshall@mocorn.org • www.mocorn.org

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#### Nebraska Corn Growers Association

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#### New York Corn Growers Association

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#### Corn Growers Association of North Carolina 7520-102 Leadmine Road Raleigh, NC 27615 P: 919-844-7116 • F: 919-844-7260 Joyce Woodhouse, Executive Secretary jwoodhouse@earthlink.net

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#### Tennessee Corn Growers Association

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#### Virginia Grain Producers Association

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#### Virginia Corn, Soybean and Small Grains Board

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## NCGA PUTS INNOVATION INTO ACTION

Founded in 1957, the National Corn Growers Association represents 35,000 dues-paying corn farmers nationwide and the interests of more than 300,000 growers who contribute through corn checkoff programs in their states. NCGA and its 48 affiliated state associations and checkoff organizations work together to create and increase opportunities for corn growers.

Visit www.ncga.com for more details and updates on the corn industry.

www.worldofcorn.com

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