

**Agriculture: Celebrating Its Horsepower**

From a team of horses in the early 1900s to tractors with the power of 40 to 300 horses today, American farmers provide consumers with more and better quality food than ever before. In fact, one farmer now supplies food for about 129 people in the United States and abroad compared with just 25.8 people in 1960.

The efficiency of American farmers pays off in the price American consumers pay for food as well. U.S. consumers spend roughly 9 percent of their income on food compared with 11 percent in the United Kingdom, 17 percent in Japan, 27 percent in South Africa and 53 percent in India. This great value is due in large part to improved equipment efficiency, enhanced crop and livestock genetics through biotechnology and conventional breeding, and advances in information management.

All Americans are asked to enjoy and admire the wonders of American agriculture as National Agriculture Day is celebrated on March 20.

**Equipment Changes Boost Farm Output**

Today's farmers work nearly three-and-one-half times more land than their predecessors from 1900. Their needs are different, the crops are different and the rules governing production practices are different.

"There is an on-going consolidation in agriculture that results in fewer farmers farming more acres," says Doug DeVries, Sr. Vice President Agricultural Marketing for North America, Australia and Asia at John Deere in Moline, Ill. "Their needs for equipment are changing. Their expectations for what the equipment will do for their farming operation are also changing."

DeVries adds that John Deere has had three of its largest product introductions ever in the last four years – despite tough economic times. "We've almost revamped our entire product line to provide more efficient production solutions for farmers," he says. "When we sell a planter, we're really selling the ability to plant a crop. Farmers want solutions in the form of bigger, faster equipment that provides them with better information about their farming operations."

**Information Management Aids in Food Safety, Production Efficiency**

John Deere also provides technology services to farmers that include wireless information transfer and satellite guidance systems for driving equipment. With JD Link™ farmers can have information about their equipment and production operations transferred directly from the equipment in the field to a Web site for easy access later. This can greatly improve their efficiency and increase the life of their equipment by ensuring more timely maintenance.

GreenStar™ AutoTrac is a satellite guidance system introduced to farmers by John Deere in 2002 and expanded in 2003. This assisted steering system is extremely accurate (within 4-inches pass to pass accuracy) and guides the tractor in a straight line down the row. The operator still turns the tractor at the end of each pass, and must also steer around obstacles such as trees, ditches, and waterways. This technology helps farmers by reducing fatigue and benefits consumers by reducing input costs so the end product costs less when it reaches the retail shelf.

Overall, new technology, such as Field Doc, an agronomic data collection system that uses KeyCard software and three common GreenStar components, provides farmers with better, more timely information to ensure quality, efficient crop production. The information infrastructure also allows growers to track their crops and the production processes used to produce those crops better. A key factor as biotechnology and traceability of specific crop varieties become even more important in food production.

**Biotechnology Increases Capacity, Product Quality**

Biotechnology is another factor in the efficiency of American farmers and their ability to provide more, higher quality food and livestock. Biotechnology provides benefits similar to traditional plant and livestock breeding, but does so in a more controlled environment and with faster results.

Advancements made in plant biotechnology provide consumers with better quality products in many areas. And those benefits are just beginning. There are many products in the biotechnology research pipeline that will provide better livestock feed resulting in leaner meat for consumers. Many of these same products will lessen the environmental impact of livestock production, by reducing waste and/or the chemicals found in animal waste.

Pharmaceutical companies are actively working with farmers to develop crops that can go directly from the field to pharmaceutical production – eliminating some of the processing steps that occur in today's operations. This research will significantly reduce the costs required to produce many life-saving drugs.

**New Uses Benefit Consumers, Farmers Alike**

Research and technology advancements have also resulted in new uses for crops like corn, soybeans and various grains. Use of products like ethanol and soy-diesel will reduce American dependence on fossil fuels and improve air quality throughout the United States and the world. Ethanol is the largest industrial use of these commodity crops, but soy-diesel and other uses are emerging every year. According to DeVries, resins from corn and soybeans are used in some of the panels that go into John Deere equipment. "We've really just seen the tip of the iceberg in the use of renewable resources," says DeVries. "The more we can use commodity crops in industrial applications, the better off we'll all be."

**Programs, Technology Preserve Environment, Advance Productivity**

American agriculture can also be celebrated for its efforts in environmental conservation. Farmers and ranchers provide food and habitat for approximately 75 percent of this nation's wildlife. The current farm bill has provisions for farmers to create environmental habitats that will ensure protection of the land and water resources of this country.

Farmers use computer and satellite technology to map their fields for production inputs. This increases yields and reduces crop inputs like fertilizer and crop protection chemicals. "Most farmers use some form of mapping process in their operations," says DeVries. "What we at John Deere have done is provide them with advanced technology through Field Doc and JD Office™ to efficiently use those maps and track their production information to help make wise, data-driven decisions about their farming operation."

With today's technology, farmers are better able to match seed characteristics and production practices to soil type and climate conditions. The result is higher yields with lower input costs from more efficient use of chemicals, fertilizers and tillage. Ultimately, that results in more food at a lower cost for consumers.

**Learn More With These Resources**

More information on advances in agriculture can be found in a variety of locations on the Internet. Some key sights include:

- www.johndeere.com
- www.whylbiotech.com
- www.ncga.com
- www.agday.org
- www.reeusa.gov

These are a few of the sites available and contain links to other sites with information on various aspects of agriculture, biotechnology and food safety.

Today's farmers understand the importance of improving the quality and quantity of food available to the world. According to the US Census Bureau, it is estimated that there will be 7.5 billion people in the world by the year 2020 (we're currently at 6.2 billion). It's agriculture's job to find a way to feed those people. Advancements in crop technology, equipment technology and information management will make that possible. American farmers and others involved in the agriculture industry have met and will continue to meet this challenge again and again.



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**Oakley Implement**  
 3670 US 40  
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The Colby Free Press would like to thank all the area Farmers and the Farming Supply stores for their hard work and dedication. We truly appreciate everything that you do for us and the rest of the world. This week is dedicated you everyone that works so hard to keep the food on our plates. Thank you all!

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