

A story of technology and innovation.





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95% of all corn farms in America are family owned.

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Source: USDA

McCauley family | White Cloud, Kansas

The seventh generation of the McCauley farm family is in this photo. So is the sixth, fifth and fourth. "I'm really proud of the fact that our farm today is better than it was four decades ago when I started farming, and it will be even better as the next generation takes what we've learned and improves it," said Ken McCauley (center back row), who farms near White Cloud, Kansas.

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The word "sustainable" is often used these days, and Ken can't think of any better definition than his family farm. "We've more than doubled yields since I've been farming, and at the same time we've improved our soil and better managed our resources," he said. "When you figure the sixth generation is taking over the farm now as the seventh grows up on it, I say we're doing a great job ensuring our land will provide for our family and help feed and fuel our country well into the future. You can't get more sustainable than that."



Introduction

Through innovation, technology and hard work, America's corn farmers are producing record crops. This allows them to satisfy all the traditional uses of corn plus help the United States build a growing portfolio of renewable products that utilize corn as a feedstock.

Farmers battle the weather – a wet spring, heat and dry weather in August and a combination in the fall during the critical harvest season. Occasionally you'll even see a farmer bucking snow drifts with his combine in an effort to get the last few acres harvested.

The results are astounding, with the highest yields and crop production numbers in history coming over the last eight years. We're talking corn being stored in every nook and cranny available and even on the ground. In 2010, America's corn farmers produced a 12.4 billion bushel crop – the fourth year in a row with production exceeding 12 billion bushels. That's enough corn to fill bushel baskets that could circle the globe 127 times. The amount of corn produced per acre, known as the yield, was 153 bushels per acre, a 24-bushel increase from eight years ago.

How can this happen? How can American family farmers continue to produce more corn per acre? How can they produce 20 percent more corn per acre than any other country in the world? There are a lot of ways to answer these questions, but a big part of it is simply good old-fashioned ingenuity, hard work and the desire to contribute to a safe, abundant food supply.

Ingenuity comes from the willingness to try new things – to learn and adapt, to get better. Family farmers – who grow 90 percent of the corn in America – have certainly done that. They use more precise equipment and take advantage of the resources that allow them to adopt conservation tillage, which keeps the soil in place and holds in moisture. They check the nutrients in the soil and replace only what is necessary. They use seed that has a tremendous yield potential and the ability to protect itself from damaging insects.

Hard work? Well, that comes naturally to any farmer who relies so much on the weather, complex equipment and dozens of unplanned situations that require attention. It's simply the nature of the business – and farmers thrive on it.

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Their success benefits many. After all, more than 300 million people living in this great country need to eat. Without corn farmers – all farmers – we wouldn't be here. Every year we ask farmers for more food, but give them less land on which to produce it. We want farmers to be more efficient and use less energy. Every year they manage to succeed – with less than 2 percent of the population committed to farming the land the best they can in order to provide the rest of the country with the safest, most abundant food supply in the history of the world. Certainly farmers should be respected for the work they do – and perhaps we should acknowledge that they may indeed know what they are doing.

Corn farmers, for example, ensure livestock and poultry producers have access to a high-quality feed ingredient. Plus they produce a crop in such bounty, skilled processors are able to convert corn into dozens of useful products that find their way into food and non-food applications. Ethanol producers, for example, convert the starch in each corn kernel into ethanol and return the rest as a concentrated protein feed for livestock. Researchers, meanwhile, are looking for even more opportunities to use corn as a replacement for dozens of petroleum-based products.

Why keep looking? Why do we keep exploring new opportunities for corn? The answer lies in the fact that corn yields continue to advance. We're talking average yields that in a decade may be 40 percent larger than today and 80 percent larger by 2030. This gives us many opportunities to take advantage of a crop adapted to grow incredibly well across the country and to make the most of the innovation and technology on America's family farms.

At the same time, farmers aren't resting on their laurels. They're getting better at what they do. Every year. They use fewer chemicals and fertilizers, practice conservation tillage and purchase high-tech equipment to ensure they are leaving their land in better condition than when they started farming. Certainly someone who works with the soil for a living wants to care for it in the best way possible – especially since corn farming is so often a multi-generational undertaking.

To family corn farmers, success isn't measured by a single growing season, but in the ability to produce a crop in the right way and leave that legacy for our future.

In this edition of *The Corn Fact Book* we highlight a few farmers and tell a bit of their story. We highlight some important facts and provide some background as to how American farmers became so successful at raising corn – and the opportunities that provides for us all.

In the mid-1950s, Henry A. Wallace, former Vice President, former Secretary of Agriculture and an early developer of hybrid seeds, noted that the Corn Belt had developed into the "most productive agricultural civilization the world has ever seen."

The Corn Farmers Coalition

To help tell the story of the American corn farmer, farmers from across the country came together through their state corn organizations to found and fund the Corn Farmers Coalition. They partnered with their national organization – the National Corn Growers Association – to help highlight how farmers care for the land and produce corn in such abundance that it is available for use in many new industries.

The largest corn yields in history all occurred in the last eight years. Consequently, eight of the largest crops in history also occurred over the last eight years.

The farmers who comprise the coalition have as diverse a set of interests and backgrounds as those who read this publication. However, the soil and the corn seeds they plant every spring tie them together. It gives them a common purpose and desire to let the world know how farming has changed – and the opportunity we have to grow a future around renewable products made from corn.



Lynch family | Humboldt, Iowa

Raising a farm family

Jay and Emily Lynch of Humboldt, Iowa, are like a lot of family farmers. They have two young children, five-year-old Allison and twoyear-old Nathan, who keep them busy, as do the part-time, off-farm jobs they enjoy. They farm with Jay's parents, who live down the road on a Century Farm, which means the farm has been in the family for more than 100 years.

"We're incredibly lucky to live on a farm and raise our children here," said Emily. "They'll grow up understanding the value of hard work, and what farming means, how our family contributes food and fuel to the community and country. We want them to have the same opportunity we have, to live on the land where their grandparents and great grandparents grew up."

Ensuring their children have that opportunity means caring for the soil and protecting other natural features around their farm. It also means striving to be more productive on every acre, while minimizing crop inputs.

"We want to produce as much corn or soybeans per acre as we can because that supports our family. With today's farming techniques, it's possible to have great yields, while improving the soil and protecting the environment," Emily said. "We love to go camping and fishing. It's an important part of our life. We protect those natural resources by farming smart and becoming better every year."

To that end, the Lynch's adopted strip tilling, a form of conservation tillage that leaves the residue from the previous year's crop on the field. They use GPS technology to ensure crop nutrients are applied only where necessary and every year they become more efficient.

"By caring for the land and environment, we'll continue producing great crops that help provide quality, safe food for our family and the country," Emily said.

Corn Farmers Coalition CORN FACT BOOK

America's corn farmers are by far the most productive in the world, growing 20% more corn per acre than any other nation.

Source: USDA



Harbage family | South Charleston, Ohio

Brian and Jennifer Harbage are the seventh generation to farm their family's land near South Charleston, Ohio. They are the third generation to live in the farmhouse, and their sons Aidan and Lane are the fourth. They raise corn, soybeans, wheat and hay, have a beef cattle operation and supply a nearby dairy farm with feed. "You can't ask for a better way of life as far as I'm concerned," Brian said. "We get to be our own boss and don't have to worry about punching a time clock." They didn't get to be the seventh generation by accident. It took generation after generation caring for the land, each learning from the next. "We've been 100 percent no-till for 19 years, as that conservation practice is a better way for us to keep soil in place and reduce fuel usage while getting better yields," Brian said. "We also use every piece of technology we can to ensure fertilizer and other crop inputs go only where they are needed and stay there. We're better this year than five years ago and I can't even imagine how productive we'll be in a decade using even fewer inputs than we do already."

