



# What's next for agriculture?

*By Joel Schettler*

## THE BIG IDEAS THAT WILL SHAPE THE INDUSTRY'S FUTURE

**L**ike most Midwest crop producers, Darin Moen worries about the effect falling commodity prices will have on his sugar beet, wheat, barley and soybean farm near Alvarado, Minn. "We've dropped 40 percent on commodity prices the past two or three years, with input costs that are virtually the same. That's something

I definitely lose sleep over." Commodity price isn't the only issue producers face. Other trends, from growing world populations to changing farm demographics, are beginning to cohere as they impact American agriculture. Developments in technology may lead to issues involving regulation. Innovations in seed technology could trigger

an international trade dispute. Cooperative executives, producers and other thought leaders have highlighted a few of today's trends that will shape tomorrow's agriculture. With change comes opportunity, but such unsettling times can be both frightening and invigorating. >

## > Changing Farm Demographics

Call it a changing of the guard. In the coming years, many farming operations in rural America will undergo a significant shift in leadership as they are handed over to the next generation.

The average age of the principal American farm operator has surpassed 58 years, according to the 2012 USDA Census of Agriculture. Only 8 percent of the 3.2 million U.S. farms are operated by millennial generation farmers (age 34 or younger), but that could change rapidly as the older generation begins to retire.

**The U.S. lost 95,000 farmers from 2007 to 2012**

“Which generation is going to farm the land?” asks Sean Slowinski, CEO, North Central Grain Cooperative, Bisbee, N.D. “As farming gets to be a riskier venture with costs continuing to skyrocket, it is harder for a younger person to decide to farm, unless he or she has a family member who owns land or has an opportunity to partner with somebody to share equipment costs.”

There were 95,000 fewer farmers in 2012 than in 2007, according to the USDA census. While the annualized rate of change is still less than 1 percent, and the number of family farms has remained stable, fewer Americans are growing up with a direct connection to farms and food production.

“There’s a [rural and urban] disconnect as we move further away from each other,” says Bruce Weber, North American

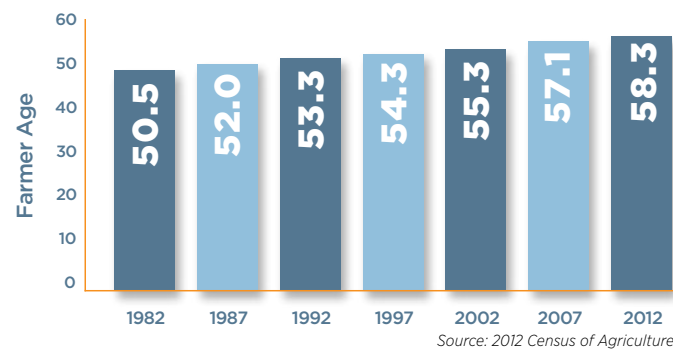


*Like many multigenerational farm operators, Minnesota producer Steven Moen and his son Darin prepare to weather changing conditions as they adapt to new technologies and global market shifts.*

soybean product line manager, CHS Grain Marketing, who grew up on a farm, but now lives in the Minneapolis-St. Paul metro area.

“I think people in urban areas have the mindset that they want to touch their food. They want it safe, but they really don’t know how to do that anymore. And I think that rural areas forget the wants of the city and don’t communicate very well.”

### Average Age of Principal Operator



## A New Economic Era

Farm sector profitability is forecast to continue to decline for a second year in a row, according to USDA analysis. Some might call it a new normal, but others feel it’s more of a return to normal after experiencing high median profits during what has been dubbed the “super-six-pack years” from 2007 to 2012.

“I think we are back on the long-term trend,” says Michael Boland, professor at the University of Minnesota and director of The Food Industry Center. Recently added worldwide commodity production is one reason supply has caught up to demand.

“We are seeing that right now with wheat,” says Boland. “And we are seeing corn acres in the Ukraine and other parts of Eastern Europe and southern Africa that are now in production, and in Argentina, which never had corn. That little bit extra is enough in world markets to bring commodity prices back to their long-term trend line.”

While commodity prices have fallen, other costs associated with crop production have not, creating difficult economic conditions for most farm families. Median farm household income peaked in 2014 at an estimated \$80,620, according to USDA Economic Research Service data. Income is expected to drop slightly to \$79,287 in 2015.

Given a broad USDA definition of a farm, many are not profitable even in the best of years.

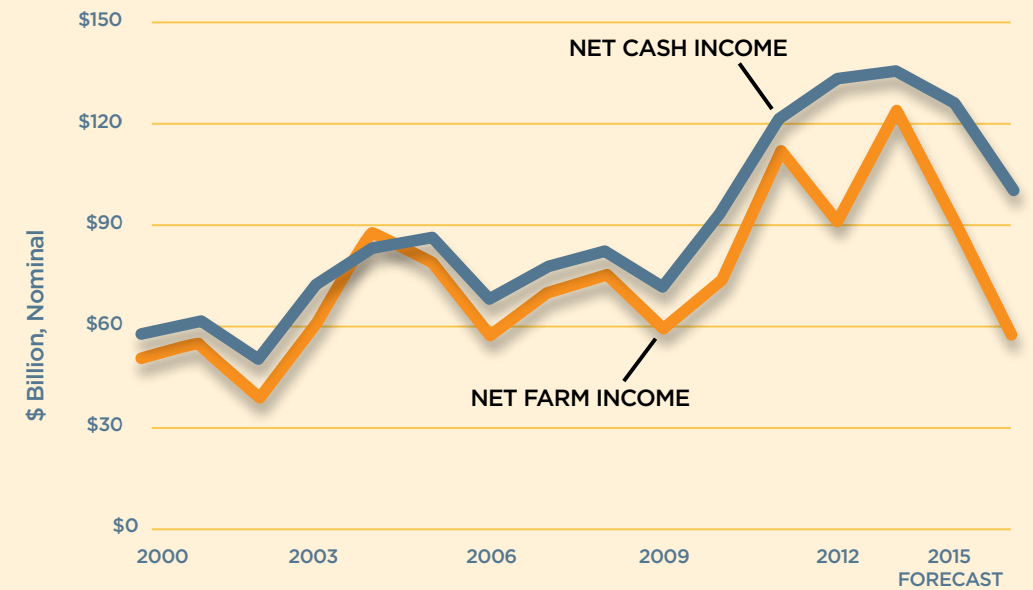
“It’s hard for a producer to make a profit right now,” says Todd Ludwig, CEO, WFS Cooperative in Truman, Minn. “The fortunate thing is a lot of them went through the past several good years and their balance sheets are fairly strong. They are going to weather a short downturn, but I’m not sure I see relief coming. I’m concerned.”

Crop nutrient prices, particularly nitrogen, have not come down as fast as crop prices, says Boland. Neither have land rents. “As a percentage, land rental prices have not adjusted as quickly.

They are even more ‘sticky’ than crop nutrients are right now. That’s going to differ by geography and by what I call ‘localness.’ If a farmer has been renting something for a long time and it fits his farming

operation in terms of how far he has to drive machinery, etc., he’s more likely to stick with trying to get that land, which may mean a high cash rent price if someone is bidding against him.” >

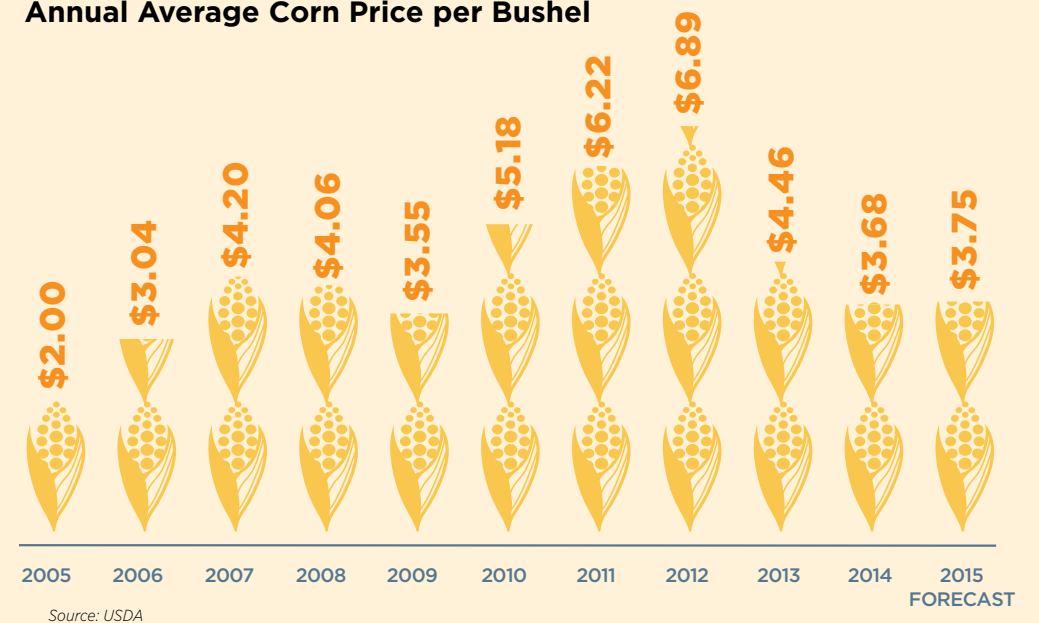
### Net Farm Income and Net Cash Income



Farm sector profitability is expected to fall for the second straight year in 2015. Lower crop and livestock receipts are the main drivers in the 21 percent decline in net cash income from 2014 levels. Net farm income is forecast to be \$58.3 billion in 2015, down 36 percent from 2014 and the largest drop since 1983.

Source: USDA Economic Research Service

### Annual Average Corn Price per Bushel



## > Global Stage

Global trends will continue to have a greater effect on American agriculture.

“The Chinese stock market and China’s economic growth are drivers we are going to watch,” says Weber. “It’s the second largest economy in the world and the largest commodity consumer.”

**10%**  
of U.S. farmland will change ownership by 2020

With soybeans in particular, China buys two-thirds of the world’s exports, says Weber. Even though its economy is slowing, China’s demand for soy remains strong.

Commodity markets also will be shaped by consumer demand outside the U.S., including growing demand for oils, oil products and soy protein meat replacements. Whether it is for political, environmental or perceived health benefit reasons, says Weber, consumers could soon prefer soy.

“I could see a huge societal shift,” says Boland, “and it’s going to come sooner than people think.”

On campus, Boland sees a whole new generation of young people who aren’t shaped by conventional tastes. “We never thought we would make hot dogs from chicken, turkey or vegetable protein. Today, it’s rare to have a beef hot dog. We made that switch.”

As consumers become more aware of what’s in their food, some marketers are using it as an opportunity to differentiate their products for niche

audiences, says Boland. “This past summer, Hardee’s rolled out the first fast-food hamburger that doesn’t have beef hormones in it: raised natural beef. If you looked over the past couple of years, there’s been a steady increase in grass-fed beef from Central America and Latin America in general. That tells me someone is trying to build a supply chain around grass-fed beef, which is what characterizes most production in their beef industry.”

“So we are going to see more and more supply chains built around what I call chain captains — whether it be a McDonald’s, a multinational-like food service, a Unilever or General Mills,” says Boland. “These supply chains will give consumers many choices, and they already have more choices on the food shelves than ever in history.”

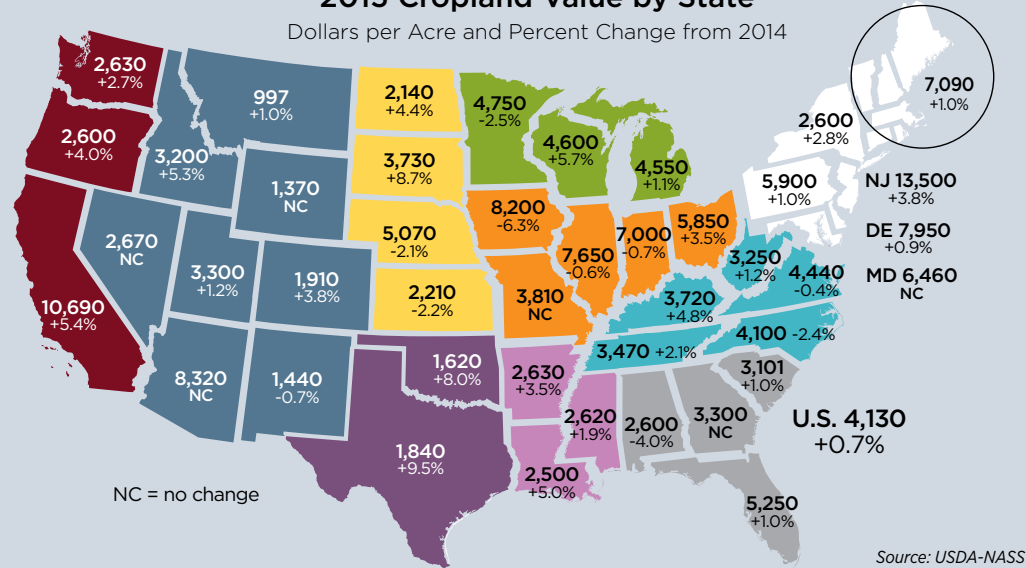
Some products have even begun to single themselves out in the marketplace by making non-GMO claims, says Boland. Whole Foods, for example, has announced it will create a non-GMO supply chain and has pushed for food labeling initiatives across the country.

“There are some spots where people are using non-GMO for

advertising,” says Weber. “The other day I noticed the Grape Nuts package said ‘non-GMO.’ Well, there’s never been GMO wheat or barley, so it’s a great advertising campaign for the same thing they had in the box 10 days ago.”

## 2015 Cropland Value by State

Dollars per Acre and Percent Change from 2014



Source: USDA-NASS

## Cooperative Speed and Space

Cooperatives will continue to play an increasingly important role in rural American life as they meet greater demands from their customers.

In recent decades, farm operations and equipment have grown considerably in their capacity to apply farm inputs and harvest. Co-ops have had to adjust as well, adding “speed and space,” says Slowinski of North Central Grain Cooperative. “Twenty years ago, farms ran one combine and two tandem trucks. Now they run two combines with 40-foot grain headers and they have three semis. The crop comes out much faster than it did 10 to 20 years ago.”

Over the past seven years, WFS Cooperative in Truman, Minn., has invested nearly \$100

million in upgraded facilities. “Cooperatives have increased their capacities,” says Ludwig. “And even if they made similar upgrades at half the level of WFS, investments totaled across the country would equate to a large investment on farmers’ behalf. The old infrastructure just couldn’t handle it.”

When commodity prices are good, farmers inherently want to do business locally, says Slowinski. “When prices are in a down cycle and somebody has a better grain price, it tends to make them look around.”

If you take price out of the equation, he says, advantage and opportunity for a cooperative is found in relationships with farmers and in customer service, not only for

marketing grain, but also on the crop input side of the equation.

“Generally, farmers don’t learn about the value of the co-op until later in life,” says the University of Minnesota’s Boland. “So they see other competitors come and go. They see emotional behavior, if you will, when it comes to pricing by multinationals.

“It comes back to a question: Do farmers view the cooperative as an extension of their farming operation? Is it truly a vertical integration? Or is the co-op just another choice that’s supposed to earn money and the farmer gets whatever is left over?” asks Boland. “At some point in their farming career, they realize the co-op has been a steady business and they come to appreciate it more over time.”



Todd Ludwig, CEO, WFS Cooperative, Truman, Minn.

## Educating Government

Demographics also affect Americans’ opinions of how farming should be regulated by state and federal governments.

According to the 2010 census, 81 percent of Americans live in an urban or suburban environment. Not surprisingly, those ratios are also reflected in our policy makers, says John Engelen, vice president of government affairs, CHS. Of the 435 members of the U.S. House of Representatives, just 36 represent a district that’s at least 50 percent rural.

That lack of contact with rural areas and issues can create a gap between lawmaker experiences and how they approach legislation affecting the farm, says

Engelen. A good example can be seen in recent issues surrounding the waters of the United States.

“We have a federal agency trying to implement how it sees the Clean Water Act working without a good understanding of real-life impact in rural areas,” he says. “We can’t expect them to know; it’s our responsibility to communicate that. We have to fill that gap.”

In addition to water regulations, Washington will continue to seek to take legislative and regulative action on issues such as land use and environmental policy. Other possible regulations surrounding workplace safety, OSHA rules and similar labor force regulations may affect how farmers operate, says Engelen.

Financial service regulations, especially those created after the financial crisis, will continue to be felt in rural areas. Actions

taken by the Commodity Future Trading Commission meant to protect consumers could have detrimental effects as producers attempt to market their grain.

**81%**  
of Americans live in an urban or suburban environment

“We know Congress eventually will take on tax reform,” says Engelen. “If they don’t know what a co-op is, they don’t know what CHS is. And if they don’t know CHS, they may not automatically appreciate how farmers and co-ops are taxed. So we have a responsibility to communicate

our viewpoints on tax policy.” Food marketing has entered the political arena as well, as legislators debate issues around food ingredients, GMOs and food labeling, which has already been contested in states including California, Oregon and Vermont, says Engelen.

The science of food has become a trade issue as biotechnology developments have allowed some countries to erect trade barriers. “As we respond to that as a company, we can help inform trade negotiations and work to ensure market access for our owners.

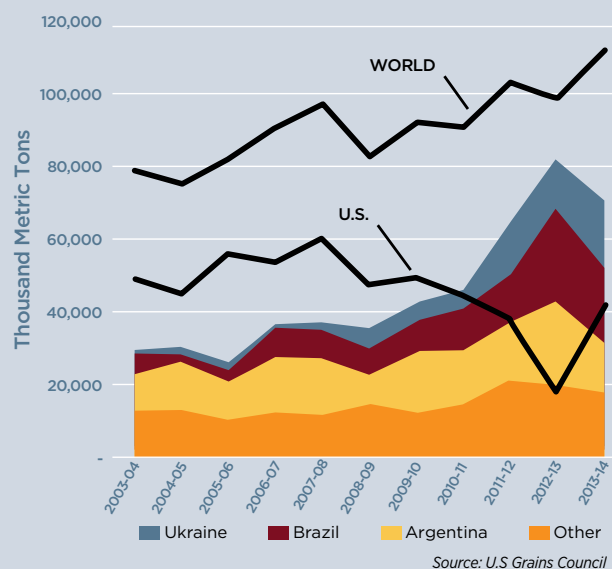
“We face the challenge of making sure that elected officials understand the impact of policies on rural areas,” he adds. “CHS has to be a leader in Washington and in state capitals, and be an educator around issues. That’s important. If we don’t do it on behalf of our owners, who will?”

## Bigger, Better Data

Technology has given farmers greater access to information than ever before. As data collection becomes more ubiquitous in rural America, experts believe future innovations will come with enhanced real-time analysis tools.

“How we manage data is as important now as providing data,” says Slowinski. “Everybody has access to data; it’s how we interpret it that will make it beneficial to the grower. The big pieces are who manages the data, who interprets the data and who owns the data. These are the trends, and lots of companies are taking big swings at opportunities to control that flow of information.”

## Corn Export Competitors



Source: U.S. Grains Council