

CornsTalk

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SPRING 2013

Win **FREE** Groceries
for One Year

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**Corn Chips
of a Different
Flavor**

Robertson Family
Elsie, Nebraska

Nebraska's
Family Corn
Farmers

A
Publication
of the
Nebraska
CornBoard
NebraskaCorn.org



Corn farming in Nebraska results directly and indirectly in 63,900 jobs across the state, plus 10,900 jobs in the ethanol sector.

Nebraska corn farmers will invest an estimated **\$2.8 billion** this spring just to get the corn crop planted – and that doesn't even include the expense of equipment, land costs and labor. What becomes of that investment come harvest?

What does a \$2.8 billion investment become?

As Tim Scheer navigates his combine through cornfields near St. Paul, Neb., every fall, the millions of corn kernels piling into waiting semis are really little economic powerhouses upon which Nebraska thrives.

"Those kernels are pretty small on their own, but together they snowball into quite an economic driver," Scheer said.

Once corn leaves the field, everywhere it's used adds value. For example, an ethanol plant takes that corn and makes ethanol and distillers grains, a livestock feed. Fuel blenders add that ethanol to gasoline, while livestock producers feed distillers grains and turn it into beef, pork, poultry and dairy products.

"Corn is not only a predominant crop but a predominant enterprise. It ripples through the economy a long way. The carry through of corn to processing and feed is just phenomenal," said Dr. Bruce Johnson, an economist with the University of Nebraska–Lincoln.

In an analysis, Johnson and his colleagues estimated that corn production and its ripple just through the ethanol industry has a value-added impact of \$6.6 billion on Nebraska's gross state product (GSP is comparable to the gross domestic product on a national level). That figure is just the portion attributable to corn and ethanol – livestock and poultry each have their own sizable impact, as well, and rely heavily on corn and distillers grains as an input.

That figure also doesn't include all the products changing hands just to grow a crop. For example, the \$2.8 billion, roughly \$270 per acre, Nebraska farmers invest to get the crop planted includes only seed, fertilizer and other inputs necessary to get the crop off to a good start. Those dollars go to cooperatives, seed dealers and others who sell those inputs and employ thousands of Nebraskans, converting that \$2.8 billion investment into a \$7.0 billion ripple through the state's economy.

Shannon Landauer, executive director of the Boone County Development Agency, has seen that impact first hand.

"Between late 2006 and the third quarter of 2011 we saw 170 new jobs and more than \$400 million invested in Boone County," she said. "Having such a strong ag economy allowed us to weather the economic downturn pretty well. In fact, our unemployment rate is below 3 percent locally. Corn, livestock and ethanol all come together well for us."

The analysis by Johnson and his colleagues pegged direct and indirect jobs for corn production at 63,900 across the state, plus an additional 10,900 jobs for ethanol. The labor and proprietor income generated from these jobs comes to nearly \$5.3 billion – and that's not even counting the role of corn working through the livestock sector.

"Those are big numbers, important numbers for Nebraska," said Scheer. "The investment corn farmers make every spring is the foundation for the state's economy, thousands of jobs and a lot more. It's pretty incredible when you think about it."

Nebraska's
ranking in
cattle on feed

2

Nebraska's
ranking in
annual corn
production

3

Nebraska's
ranking in
ethanol
production
capacity

2

Millions of
tons of livestock
feed produced by
Nebraska's
ethanol
plants
annually

6



Nebraska corn farmers are using innovative technology to better manage irrigation water.

Evapotranspiration (ET) gauges, like the one shown here, let farmers know how much water corn plants have taken up from the soil and evaporated into the air. Additional sensors keep track of how much water is available in the soil. Combined, these two technologies give an accurate picture of water use, when farmers need to irrigate and how much.

Research using these tools has shown farmers how to reduce water use by up to 25% while still achieving good yields—and saving energy costs. “When it’s hot and sunny, you want to believe it’s drier than it really is and that the crop is using more water,” says farmer Mark Jagels of Davenport. “We’ve learned that isn’t always the case—and we can wait a few more days before irrigating.”



RU Cool 2 FlexFuel?

One in ten Nebraskans is driving a Flex Fuel Vehicle (FFV). Are you one of them?

A Flex Fuel Vehicle (FFV) provides the ultimate in consumer fuel choice, allowing you to choose any blend from ordinary unleaded gasoline up to 85% ethanol (E85)—and everything in between including E10, E15, E30, etc. You can fill up with one fuel blend one time and with another the next—at any time and in any amount. You can choose your fuel blend based on availability, cost, preference and performance.

How to tell if you're driving an FFV.

FFVs look like any other vehicle of the same make and model. To know if you're driving an FFV, look for:

- A Flex Fuel badge or insignia on your vehicle
- A sticker inside your fuel door
- A message on your gas cap (some FFVs have bright yellow gas caps)
- Information in your owner's manual

Or make note of your Vehicle Identification Number (VIN), make, model and year of your vehicle and visit one of these websites:

- e85prices.com
- afdc.energy.gov/afdc/vehicles/light?fuel_type_code=E85_GSL

There are also apps available for your smartphone.

Omaha and Lincoln leaders connect Nebraska's urban

The Nebraska Corn Board recently invited business and educational leaders from Omaha and Lincoln to participate in a “virtual roundtable” discussion of the opportunities and challenges facing Nebraska agriculture. Additionally, they were asked to discuss the connection between the success and mission of their “urban based” organizations and the success of Nebraska agriculture as a whole. Responses have been edited for this publication. To read the full responses from all participants, visit NebraskaCorn.org.

A sincere thanks to these Nebraska leaders for sharing their thoughts and insights.



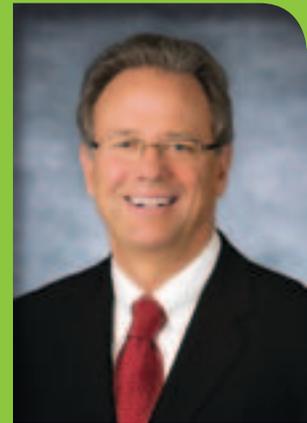
Todd Becker
President, CEO & Director
Green Plains Renewable Energy, Inc.
Omaha



David Bracht
Partner
Stinson Morrison Hecker, LLP & Chairman, Agriculture Council of Greater Omaha Chamber of Commerce
Omaha



Bob Campbell
Senior Vice President
Farm Credit Services of America
Lincoln



John Campbell
Senior Vice President
AGP
Omaha

How does Nebraska's strength in corn, livestock and ethanol influence your business or organization? How does your location in Nebraska provide a competitive advantage or growth opportunities for you?

HAMMES: Transportation is a key part of the food supply chain and rail is the safest, most fuel efficient mode. It all starts on the farm, but Union Pacific is part of delivering it to the table.

BECKER: Nebraska's leadership in corn and cattle production is a good fit for Green Plains. The location of our Nebraska plants in the western corn belt makes us competitive in ethanol markets in the southwest and western U.S.

GREEN: Few other states “have it all” when it comes to agriculture. Nebraska is truly a natural living laboratory with more than 45 million acres of farmland, the world's largest aquifer and over six million cattle. Being located in Nebraska, the global epicenter of food production, allows us the unique opportunity to play a leading role in feeding the world's people sustainably.

BRACHT: As a lawyer focusing on agriculture—and an ag lender before that—Nebraska is a near ideal place for me to develop my practice. Nebraska's diversification in livestock, grain and renewable energy provides greater balance and stability as markets change and weather events occur.

DUNCAN: There is no other state better positioned to take advantage of the conversion of global demand for food, fuel and water. Nebraska Innovation Campus is launching in the right place at the right time, no doubt in my mind.

KALKOWSKI: Our bank's footprint closely mirrors that of our nation's food production. The fact that Nebraska is at the heart of both agricultural production and our bank network puts us in a great place to support opportunities in agriculture far into the future.

BOB CAMPBELL: We are a cooperative with the sole purpose of supporting our customer-owners in all facets of agriculture. The strength of agriculture in Nebraska and across the country is economically vital to our customer-owners and our nation.

WARNER: More than half the land in Nebraska is owned by non-operating land owners, who are partners in production and very important investors in agriculture. Most have a rural heritage and now live in towns and cities within the state. Our company works with this group of landowners.

JOHN CAMPBELL: AGP has invested heavily in Nebraska due to our position in the growing western grain region, rail access to export markets and irrigated crops.

Connect the dots between transportation centers and Nebraska agriculture.



Dan Duncan

Executive Director

Nebraska Innovation Campus
Lincoln



Dr. Ronnie Green

Vice President, Agriculture
and Natural Resources
and Harlan Vice Chancellor,
Institute of Agriculture and
Natural Resources

University of Nebraska–Lincoln
Lincoln



Paul Hammes

Vice President, General
Manager Agricultural Products
Union Pacific
Omaha



Chris Kalkowski

Vice President

First National Bank of Omaha
Omaha



Jerry Warner

Executive Vice President
Chief Management Officer
Farmers National
Omaha

What do Nebraska consumers, especially those in urban areas, need to better understand about Nebraska agriculture?

BRACHT: Nebraska's agriculture industry is the basis for a significant portion of the economic activity in the greater Omaha area. Omaha has several national and international companies directly involved in food and agriculture, along with many more that support these businesses and other ag-based companies and producers statewide.

KALKOWSKI: It seems to me if one industry provides one-third of our state's jobs and is the largest economic driver, we need to make a concerted effort to provide our fellow citizens with a basic understanding of agriculture and its role in our lives.

JOHN CAMPBELL: The consumer is constantly being hit with misinformation about the food they eat. The food agenda is being formed by people

and organizations that are well meaning, but miss the important point. Our most pressing food problem is not one kind of food or the other—it's overconsumption of total calories coupled with lack of exercise.

BECKER: Nebraska produces over two billion gallons of ethanol each year, but only uses slightly better than half the ethanol it could use in its own motor fuels. Nebraska exports 97% of the ethanol produced in the state. It's a shame we're not doing more to consume this high-octane fuel produced right here.

HAMMES: Consumers all across the U.S. benefit from a large, safe, diverse and relatively inexpensive food supply because we have great agricultural resources and the ability to supply large transportation centers.

“We are not so much a nation of red versus blue as we are a nation of rural versus urban. The urban dwellers of our country need to eat; they want to know more about their food—and that it is safe and wholesome. Nebraska agriculture will play a big role in feeding the world and educating our customers.”

CHRIS KALKOWSKI
First National Bank of Omaha

“The diversity of Nebraska agriculture is one of its tremendous strengths. It is also one of its challenges.”

JERRY WARNER
Farmers National



The number of gallons of ethanol produced for each gallon of petroleum-based fuel used over the entire corn-to-ethanol production cycle

“Biofuels have propelled a rural renaissance in Nebraska and allowed the state to thrive even through a deep and lasting national recession. It is critical that Nebraskans understand their connection not only to agriculture, but agriculture’s connection to biofuels.”

JOHN CAMPBELL
AGP

BOB CAMPBELL: Consumers need to know that agricultural producers in Nebraska are committed to provide the highest quality and safest food in the country. Producers need to manage their businesses in a manner that allows them to deliver on that commitment, while providing a living for their families and employees.

DUNCAN: Agriculture is not just the iconic rural scene many people have in their minds. It’s made up of farmers, millers, processors, researchers, logistics, transportation, engineering, and more. It’s a large sector run by people with excellent skills in business and environmental stewardship.

BECKER: All Nebraskans should truly understand the impact of agriculture on the economy of this state. We are a leader and

innovator in food, feed and fuel production—and our economy has recently been stronger than in other states because of that.

WARNER: A vibrant ag economy contributes to strong land values, good rental rates and profits for land owners, which strengthens the overall economy of the state. The impact on the economies of Lincoln and Omaha is far greater than most people realize.

GREEN: There has never been a greater need for what we do to feed, clothe and sustain a healthy and growing world of people and our land and natural resource systems. We must continue to elevate our investments in agricultural research, education and extension to continue to make innovations come to life.

What should Nebraska do to leverage its strength in agriculture to enhance statewide economic vitality—and position the state for long-term success in meeting global demand for food, feed and fuel?

DUNCAN: Focus and invest where the greatest chance for success lie. We have to define our identity—what we can do better than anyone else—and then put plans into place to become the world leader in that area(s).

BOB CAMPBELL: Agriculture is the economic base in Nebraska. We need to make sure our tax and regulatory environment allows Nebraska producers and agribusinesses to be competitive in a global market.

GREEN: Securing a healthy policy environment for profitable and sustainable animal agriculture is of utmost importance. Livestock farms and ranches in Nebraska possess the capacity to convert a wide range of grasslands and feed sources in the delivery of nutrient-rich food for human consumption. The importance of animal agriculture has never been greater; we need to innovate the industry under a very different economic scenario.

KALKOWSKI: If we’re concerned about policy being created today, imagine what it will be like as we continue to develop young people with little understanding of agriculture.

JOHN CAMPBELL: Nebraska lost its pork production industry while neighboring states grew. The economic losses to the state were substantial. If we’re going to take full advantage of our crop production capacity, we must also add value through a vibrant and growing livestock sector that includes pork and dairy operations.

BRACHT: With its diversity and national leadership in several ag sectors, Nebraska can create some powerful synergies. We’re second in ethanol production in the U.S., due in great part to our strong cattle industry and irrigated corn production. Ethanol producers can rely on a consistent supply of corn, even in drought years. And cattle producers can

rely on the wet distillers grains from ethanol production to feed their cattle. We must take advantage of other potential synergies of this nature.

WARNER: We must continue to increase both irrigated and dryland corn production in Nebraska. We must be more efficient water users everywhere, but especially in the more limited aquifers. If rural and urban interests work together, we can bring new systems

What concerns you most about the future of agriculture in Nebraska? What will it take to address those concerns?

BECKER: As corn prices rose this past year, it was clear that the change in the price was related to the unfortunate and uncontrollable drought, not to the demand for corn from the ethanol industry. Still, several requests were submitted to the EPA to waive the Renewable Fuels Standard. While requested waivers were eventually denied, this was a wakeup call for all ag-related businesses to work together and understand that we all have a place in Nebraska agriculture. By increasing the diversity of markets, we are supporting farmers—and each other—in good times and bad.

BRACHT: The declining number of young people with direct agriculture experience poses both a challenge and an opportunity. Agriculture organizations and educational institutions that can foster a similar understanding among people with different backgrounds will provide individual opportunities and serve the greater good of the agricultural community.

JOHN CAMPBELL: Nebraska's ace-in-the-hole is our underground water resources. Nobody likes regulation, but water quantity and quality will suffer—perhaps irreversibly—if water is not responsibly managed by both local water authorities and by the State.

into use which will conserve water and make enough available for everyone.

HAMMES: While Nebraska has significant in-state markets for grain and grain products, the long-term demand growth will be aligned with exports. Nebraska needs to continue to invest in infrastructure and crop production practices to capture and access these markets. Union Pacific alone plans to spend \$1 billion in new investment in Nebraska over the next several years.

KALKOWSKI: One of every three Nebraska jobs is derived from agriculture. So, I am very concerned that only 50% of our state's high schools offer agricultural education—and that only 13% of Nebraska's high school students are enrolled in an ag education class.

GREEN: Attracting and retaining the best and brightest individuals in agriculture is of greatest concern. The competition for talent is fierce. We must find ways to make it possible and attractive for future generations to be involved in all aspects of agriculture.

BOB CAMPBELL: It's important to start talking with people who don't have agriculture backgrounds about the career possibilities. The industry needs people with training in math, science, computer technology, biology, social sciences and many other skills.

DUNCAN: Moving from a reactive to a proactive position on social, production, drought and other issues will be a key for agriculture to evolve to meet ever changing needs and expectations. Doing so takes consensus, resources and leadership.



Photo courtesy of: University of Nebraska–Lincoln

“Providing enough food to feed 9 billion-plus people in 2050 is a daunting task. We need to be aggressive in our development of new and improved technologies and management practices to increase our efficiency, sustainability, and profitability of agricultural production—and combine those efforts with enhancements in the food supply chain to improve human health and quality of life.”

DR. RONNIE GREEN

Institute of Agriculture and Natural Resources,
University of Nebraska–Lincoln

1.3

Billions of bushels of corn produced in Nebraska in 2012; the 7th largest crop in the state's history, despite the worst drought in five decades

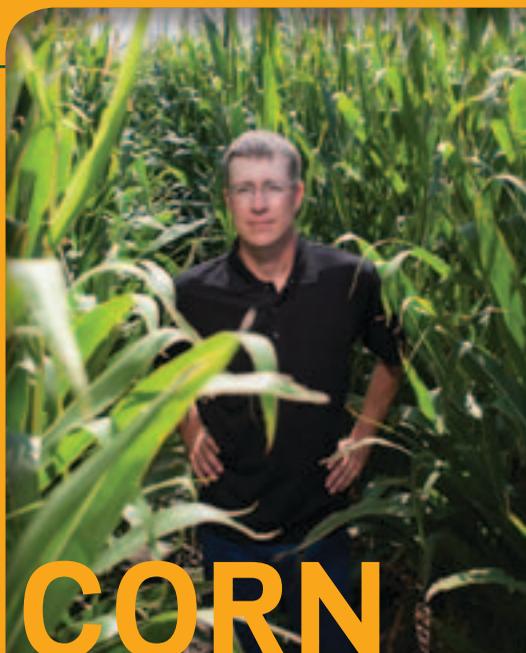
Win FREE groceries for a year!

Register at FarmersFeedUS.org

Register for a chance at one of two grand prizes of \$5,000 in "Free Groceries for a Year!" when you take a moment to learn more about food production from some Nebraska farmers, a veterinarian and a grocer.

Just visit FarmersFeedUS.org to register. In the process, you'll get the chance to "meet" a Nebraskan involved in producing safe and nutritious food. You can register daily with each of the seven Nebraskans featured through April 8, 2013.

Anselmo, Nebraska, corn farmer **Kyle Cantrell** is featured in one of the videos you can watch and then register to win a year's worth of free groceries at FarmersFeedUS.org.



CORN CHIPS?

By analyzing a sliver – chip – of a corn seed, plant researchers can discover if it has the right genetics and yield potential before it ever goes on to the next phase of research.

Automated tools remove the chip, which while tiny, is big enough for researchers to analyze for the right genetic markers. If tests on the chip show it has potential, the seed moves forward and is planted in the next phase of research.

Removing a chip does not damage the corn kernel's ability to grow but it saves considerable research time by eliminating seeds from the program without having to plant, grow and harvest the next generation.

With this sort of enhanced molecular breeding, the odds of finding the right combination of higher yield genes is one in five, compared with two in one trillion in conventional breeding!



Nebraska
CornBoard

District 1
Dave Nielsen
Lincoln, NE



District 2
Mark Jagels
Davenport, NE



District 3
Curtis Friesen
Henderson, NE



District 4
Bob Dickey
Laurel, NE



District 5
Tim Scheer
St. Paul, NE



District 6
Dennis Gengenbach
Smithfield, NE



District 7
David Merrell
St. Edward, NE



District 8
Jon Holzfaster
Paxton, NE



At-large
Alan Tiemann
Seward, NE



Nebraska Corn Board members represent the eight districts indicated on the map and are appointed by the Governor. One at-large member is elected by the other Board members.

Nebraska
CornBoard



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