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Fall 2014

## Growing a Healthy Future, Fall 2014

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# Growing

## A HEALTHY FUTURE

Climate  
Change

5

MARC 50th

8

Legacies

13



FOOD • FUEL • WATER • LANDSCAPES • PEOPLE

# A University on the Move



Ronnie D. Green

## Fall is an exciting time of the year.

This is now my fifth “start of the school year” with IANR – and I can honestly say the collective series of things coming together all at once has me convinced this will be yet another record-setting one for the University of Nebraska history book.

The College of Agricultural Sciences and Natural Resources (CASNR) experienced the 10th consecutive year of enrollment growth, and broke the all-time NU enrollment record for students studying in the agricultural sciences and natural resources areas for the fourth year in a row. The Nebraska College of Technical Agriculture (NCTA) also experienced a huge increase in the first-year student class over last year. Thanks to each of you for the part you play in making our campuses grow!

We also welcomed 40 new faculty members to campus this fall, as a part of our IANR faculty growth initiative. We are looking at growing by another 34 positions in this academic year. This growth leads to new research, collaborations, and opportunities to grow our graduate programs, while creating unique undergraduate research opportunities. This past year set a new record for IANR’s total research expenditures, and by all indications this coming year should be well above that record.

IANR isn’t just growing in personnel – the campus itself is changing and expanding. In September, we dedicated statues of J. Sterling Morton, Clifford Hardin, Clayton Yeutter, and Mike Johanns on East Campus. All four Nebraskans are former USDA Secretaries of Agriculture. We hope you can stop by and see the statues the next time you are on campus. You may also want to check on the progress of the renovation to the East Campus Recreation Center and the new campus pedestrian entrance off Holdrege Street.

Nebraska Innovation Campus (NIC) is now coming on line in a major way with the new conference center open for business this fall and our new Food Innovation Center taking shape. We are relocating our Department of Food Science and Technology to the center next summer to further enhance our collaboration with ConAgra Foods and a number of other major food companies. The Greenhouse Phenomics Center, which is set for the installation of the LemnaTec system, is on track for a March 2015 move-in. [youtu.be/wdJStsPvx4g](http://youtu.be/wdJStsPvx4g)

We have much to be thankful for, and as the legislative session kicks into gear in January, we would appreciate your continued support and guidance on our budget priorities. We are fortunate that Nebraska policymakers and stakeholders have shown strong support for affordable, quality higher education that serves the people of our state. It is because of Nebraskans’ support for their university and our commitment to use those resources effectively that the University of Nebraska is in such a strong position today. We believe we are well-positioned to continue working with the state on our shared goals for education, innovation and talent, and workforce development.

We are proud to be serving Nebraska and the greater world as your land-grant university growing a healthy future through food, fuel, water, landscapes and people. Thanks for your continued support.

Ronnie D. Green, Ph.D.  
Vice President Agriculture and Natural Resources  
University of Nebraska  
Harlan Vice Chancellor, Institute of Agriculture  
and Natural Resources  
University of Nebraska–Lincoln

Cover: Craig Chandler

Clifford Hardin’s great grandchildren, Abigail Milligan (left), and Liberty Hardin Milligan, explore his statue on UNL’s East Campus.

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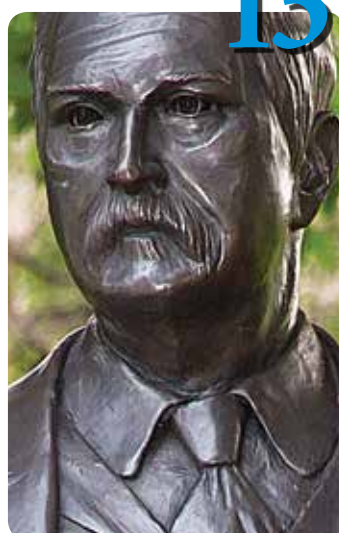


# Growing A Healthy Future

Fall 2014

Volume 3, Number 2

Climate Change	5
MARC 50th	8
Larson tractor test	10
Patch work	12
Legacies	13
Tornadoes	14
Nebraska LEAD program	16
Business's roots run deep	20
Click2Science	22
Quarter scale team	23
International perspective	24



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There is no charge for this magazine. Each issue describes IANR programs that benefit Nebraska and beyond. If you happen to receive more than one copy, please share with a friend.

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## App provides tool to teach biotech

**A** new app will give high school agri-science teachers a tool for teaching biotechnology to their students.

“The Journey of a Gene” is the product of a partnership between Iowa State University and the University of Nebraska-Lincoln. The project uses the example of soybean and the disease, sudden death



syndrome, to illustrate the process of genetic engineering.

The project began with a U.S. Department of Agriculture grant for more than \$5 million titled

“Transgenic Approaches to Sudden Death Syndrome in Soybean.” ISU scientists envisioned an extension component that would target agri-science teachers who also lead FFA chapters across the country.

They were familiar with UNL agronomy professor Don Lee’s teaching in genetics and biotechnology, and they partnered with him and UNL’s Plant and Soil Science eLibrary to develop and evaluate the app.

Grace Troupe, one of Lee’s graduate students, took the app development on as her master’s project.

The app, at [passel.unl.edu/ge](http://passel.unl.edu/ge), breaks down the genetic engineering process into four sections in showing how soybeans can be engineered to be resistant to sudden death syndrome.



## Website captures climate impact on livestock

The \$346 billion U.S. animal agriculture industry is already paying the price for an unstable climate with more frequent and extreme weather events that are devastating to individual producers and influence costs throughout the entire industry, a University of Nebraska–Lincoln animal environmental engineer says.

The U.S. Department of Agriculture’s Animal Agriculture in a Changing Climate project has launched a website at [www.animalagricultureclimatechange.org](http://www.animalagricultureclimatechange.org) to help.

“Climate change costs this industry money; we need to understand and plan to reduce those costs,” said Rick Stowell, a UNL Extension animal environmental engineer and the lead project investigator for the project.

The website offers free, science-based educational resources and online training. Materials target all those working in animal agriculture that need to have a better understanding of the issues and consequences of climate change on the animal agriculture industry. It will be available through July 2016.

## A new way to teach science

Learning the life sciences in the 21st century and beyond is about much more than memorizing information for a test and then moving on to the next subject. Students must learn in a more dynamic environment that ties the threads of science together into a whole from the start of their undergraduate experience, say University of Nebraska-Lincoln professors who are leading an effort to develop new teaching methods that meet these demands.

The University of Nebraska-Lincoln received a four-year, \$2,321,012 grant from the National Science Foundation.

Currently, life sciences teaching works like this, said Joe Dauer, assistant professor in the School of Natural Resources: “You start cramming as much knowledge as you can into a student’s head their freshman year, in pieces, and you hope students over time figure out how to connect things.”

The UNL initiative brings together life sciences educators and computational biologists to develop innovative methods to meet the challenges posed by this new approach within the life sciences.

“The U.S. is realizing that as life sciences have evolved as a research field, education also needs to change the way we teach,” added Tomas Helikar, assistant professor in the Department of Biochemistry and principal investigator for the grant.





# CLIMATE CHANGE

Fan of summer 2012?

You'll love climate change

**T**he scientific debate over whether human activities are the principal cause of climate change is over, a report from the University of Nebraska–Lincoln says. The only debate to be had now is “precisely how these changes will play out and what actions we will need to take to adapt to and mitigate the effects of these changes.”



The report, titled Understanding and Assessing Climate Change: Implications for Nebraska, was released this fall and was the subject of the first Heuermann Lecture this academic year.

Don Wilhite, founder of the National Drought Mitigation Center, said the report was prepared by reviewing the scientific literature on the subject and interpreting scientists' current understanding of the science of climate change and its implications for Nebraska.

For all of the ongoing political debate over climate change, the science is clear, and is the subject of "overwhelming consensus" among scientists, the report says in its executive summary.

"The body of scientific evidence confirms with a high

degree of certainty that human activities in the form of increased concentrations of greenhouse gases (GHGs) since the beginning of the Industrial Revolution, changes in land use, and other factors are the primary cause for the warming that the planet has experienced, especially in recent decades," the report says.

So, what might this mean in Nebraska? The state has experienced an overall warming of about 1°F since 1895, the report says. Since 1895, the length of the frost-free season has increased by 5 to 25 days across Nebraska, and on average statewide by more than one week. The length of the frost-free season will continue to increase in future decades, the report says.

Projected temperature changes for Nebraska range from an increase of 4-5 degrees F (low emission scenarios) to 8-9 degrees F (high emission scenarios) by the last quarter of the 21st century (2071-2099).

*The number of 100-degree-plus days is projected to increase significantly.*





The reason for the projected range in temperature increases is largely due to the uncertainty associated with future emissions of GHGs. If climate change continues on its current path, the changes will likely be in the 8-9 degrees F range.

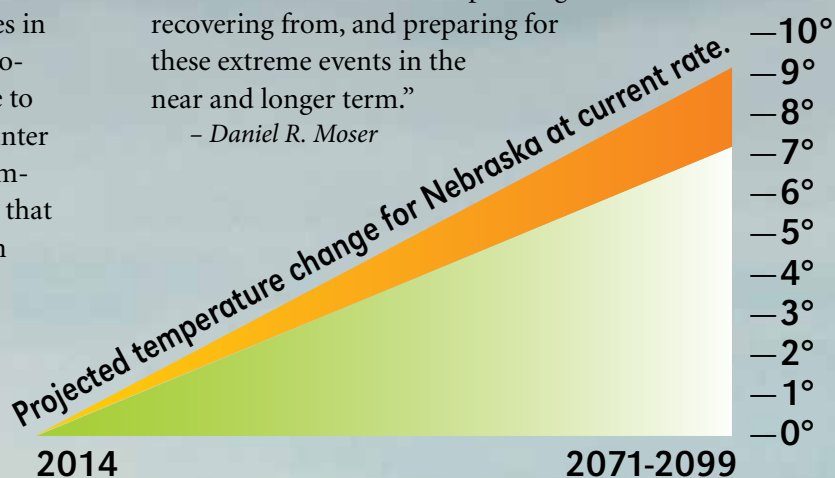
Whichever scenario plays out, the number of 100-degree-plus days is projected to increase significantly in Nebraska and the Great Plains. By mid-century, the increase in Nebraska would equate to a summer similar to the 2012 summer, a year of record-breaking drought and heat. The number of warm nights – those with the temperature remaining above 80 in the southern Plains and above 60 in the northern Plains – will rise dramatically, by 20-40.

As for precipitation, current trends for increases in the northern Plains are likely to become more pronounced, while the southern Plains will continue to become drier. Little change in precipitation in winter and spring is expected in Nebraska, while any summer and fall increases will be minimal. It is likely that drought frequency and severity would increase in Nebraska, the report says.

Current and continued projected reduction in snow-pack in the central and northern Rocky Mountains will continue to affect Nebraska in reduced flows in the Platte and Missouri rivers.

Changes in temperatures in Nebraska as elsewhere will benefit some and harm others, the report says. “However, the changes in climate currently being observed extend well beyond temperature and include changes in precipitation amounts, seasonal distribution, intensity, and form (snow versus rain). Changes in the observed frequency and intensity of extreme events are of serious concern today and for the future because of the economic, social and environmental costs associated with responding to, recovering from, and preparing for these extreme events in the near and longer term.”

– Daniel R. Moser





# MARC marks 50 years

## For half-century, partnership makes progress

**T**he U.S. Meat Animal Research Center at Clay Center celebrated 50 years in 2014.

In that time scientists at the center and USDA Agricultural Research Service scientists at the University of Nebraska–Lincoln have grown its flagship genetics program and its germ plasm evaluation project, which has evolved to be the largest breed comparison study over the last 35 to 40 years, said John Pollak, the center’s director. The project also has information on how various breed crosses worked as composites.

“It laid the foundation for commercial ranches around the country,” Pollak said.

USMARC houses both UNL and federal employees and also is the home to the Great Plains Veterinary Educational Center.

Another valuable element of partnership between USMARC and UNL is its graduate student work.

“Sharing expertise at two locations enhances the quality of research that is done at both places,” Pollak said. “It also helps in leveraging research dollars and support for both organizations, while providing a platform for graduate students to have access to data.”

Annually, scientists from UNL and the center apply for funding on a project, which is used to support a graduate or post-doc student. It is encouraged that the projects promote collaboration between any group within the Institute of Agriculture and Natural Resources at UNL and the center.

During the last 15 years, the center also has capitalized on its wealth of genetic diversity information. Scientists began working in genomics and have been developing and refining genomic tools for use in selection by the industry, Pollak said.

“During that time period, the genomics group worked on the first case of BSE, using genomics to identify the origin of the animal,” Pollak said. “It identified that particular cow was a Canadian animal, not a U.S. animal.”

The program also produced marker tests such as those for tenderness and for the genetic defect osteoporosis in Red Angus cattle.

In addition, USMARC was one of the collaborators, along with the University of Missouri, ARS Beltsville and the University of Alberta research teams, to work on the development of the original 50K SNP chip.

In the late 1990s, USMARC scientists began a focus on food safety and developed mitigation strategies for management of *E. coli* through the production cycle from the feedlot to harvest.

Scientists are now sequencing the genomes of *E. coli* and *Salmonella* to better understand the genetics behind antibiotic resistance, as well as to provide genomic DNA diagnostic tools to screen meat products for those pathogens.

– Sandi Karstens



# USMARC Interns Work Alongside Scientists



Left: Levi McPhillips collects respiration rates on finishing steers at the USMARC feedlot.  
Below: Interns Ashley Butler and Maci Lienemann assist with setup for the USMARC 50th anniversary celebration June 4, 2014, at Clay Center, Neb.



USMARC has provided student internships since 2011. This opportunity allows students to work directly with scientists, said John Pollak, the center's director.

"Students are engaged in learning techniques and addressing questions given to them by scientists," Pollak said.

Students also access a data collection activities calendar in which they can sign up to work with other scientists to see a broader scope of work going on at the center. The internship ends with a symposium in which interns present information on their project.

Levi McPhillips' 2014 summer internship focused on feedlot cattle research. The senior animal science major from Columbus worked under a ruminant nutritionist and was involved with a large feeding project.

"It was fantastic program, and I have learned so much during my time here. Everyday I learned something new," he said. "I really enjoyed contributing to the research here that is dedicated to solving some of agriculture's biggest issues."

Maci Lienemann, a junior animal science major from Princeton, was a summer intern in the breeding, genetics and animal health unit at USMARC. Lienemann assisted with a project focused on developing metagenomic strategies for reduced incidence of Bovine Respiratory Disease Complex. .

"I learned a variety of laboratory methods, including microbiology techniques for working with bacteria, DNA and RNA extraction, polymerase chain reaction (PCR), basic sequencing protocols, and I also became familiar with sequence analysis software," she said.

– Sandi Karstens





# Larsen Tractor Test & Power

**W**hen Lance Todd came on board in 2012 as the manager of exhibits and collections at the Larsen Tractor Test & Power Museum, he saw a brand new slate with enormous opportunity.

In the last two years, Todd has completed several new projects and state-of-the-art exhibits at the museum, including “In the Weeds,” which features a Case SC-4 and Oliver “60” tractor in their “work environment.”

Todd said his first year at the museum was simply spent taking inventory and organizing everything the museum had.

So far, Todd has installed new interior design elements, such as siding and lighting in the museum; rearranged tractors, selling 12 that were duplicates or similar and has incorporated new signage throughout the museum with a new logo.

Another huge task was completing the Bill Splinter Memorial Gallery, which features photography and art. The late Splinter was the past museum director.

Todd has coordinated the archiving of the museum’s extensive photo collection, scanning over 2,000 photos. In addition, the student restoration club, a club where students restore tractors, was resurrected.

The museum still houses the original test car used at the tractor test facility and also has tractors available for hayrack rides or for special campus events.

Future construction plans this fall include a new museum entrance, gift shop and a meeting room. It also is in need of new windows and HVAC.

The 1920 building is a work in progress, Todd said.

Todd joined the Tractor Museum from Museum of American Speed in Lincoln. He is a graduate of Doane College with a degree in art education.



Photos by Patrick Wright



# Museum Continues to Transform

The museum continues to enter the Lincoln tourism scene and gains exposure from its twice-yearly open houses in the spring and during homecoming week.

Established in 1998, the Larsen Tractor Test & Power Museum occupies the former Nebraska Tractor Test Laboratory building on UNL's East Campus.

[tractormuseum.unl.edu](http://tractormuseum.unl.edu)

– Sandi Karstens



When Lance Todd, above, came on board in 2012 he saw enormous opportunity. In the last two years, Todd has completed several new projects, including "In the Weeds," left, and the Ford exhibit, above.

## Trading spaces

Commodities marketing and grain merchandising students for the first time this fall are bullish in trading experience, thanks to the newly opened Department of Agricultural Economics Commodities Trading Room.

Students in four ag economics classes are in the money for real-time, realistic commodities trading experience using risk management techniques and market analysis.

"It's been rather exciting seeing what marketing experience and advanced training in markets, merchandising, futures and options will do for our students," said Larry Van Tassell, department head.

Various foundations, corporate partners and commodity organizations have donated nearly \$1 million to create the trading room, currently in the basement of Filley Hall. The room's 20-plus stations will double when it moves upstairs within a couple of years, Van Tassell said.

Individual computer workstations are loaded with the latest analytical and simulation software and connected to a market exchange. The room also has smart boards for instruction on key topics related to commodities trading.

Other equipment in the trading room includes interactive presentation screens, interactive control systems, and additional audio and video equipment. Updates in software are in the room's future as well.

"The more realistic the educational environment, the more relevant the education," Van Tassell said.

Supervised by Institute of Agriculture and Natural Resources agricultural economics faculty, the trading room leverages students' ability to develop and test trading strategies, merchandise commodities, and develop risk management plans in a dynamic, real-time learning environment. Students and faculty also may conduct research in these areas.

Students previously used marketing simulation games to experience commodities trading. The new facilities put a premium on UNL as one of only a few agricultural economics programs to offer a commodities trading room for students, Van Tassell said.

The trading room also will be used for outreach marketing and risk management programs for producers, merchandisers and commodity traders.

– Cheryl Alberts



# Patch work

## Quilt House Expands

**T**he largest public collection of quilts in the world is growing, and that is creating growing pains for Quilt House.

The remedy is the expansion of Quilt House, which has almost 5,000 quilts and related objects spanning four centuries in the collection. Located on the University of Nebraska–Lincoln East Campus at 33<sup>rd</sup> and Holdrege streets, Quilt House provides a world-class resource for the quilt studies emphasis in textile history, an academic program of the UNL Department of Textiles, Merchandising & Fashion Design in the College of Education and Human Sciences.

“People who come to Quilt House often leave wanting more. With this expansion, we are pleased that their wish will come true,” said Marjorie Kostelnik, dean of the college.

Quilt House, which opened in 2008, currently has three exhibition galleries and state-of-the-art textiles storage. The 37,000-square-foot building is an international focal point for the study, conservation and exhibition of quilts.

The expansion, which will include new gallery space for exhibitions and additional room for quilt storage, is funded by a \$7 million gift from the Robert and Ardis James Foundation. The Institute of Agriculture and

Natural Resources provides support for historical and material culture research rooted in the collection and for related outreach.

The expansion comes at a critical time for Quilt House, said Michael James, professor and chair of the Department of Textiles, Merchandising & Fashion Design.

“We’ve passed the developmental stage and we’re now poised to bring a much fuller picture of the truly international nature of patchwork design and quilt-making practice to our diverse audiences,” he said.

The expansion will help to demonstrate the variety of the collection in dynamic and visually compelling ways, James added. “It will also help us to redefine how quilts are exhibited and how their stories are told.”

The 13,000-square-foot addition to the west side of Quilt House was designed by Robert A.M. Stern Architects of New York and Alley Poyner Macchietto Architecture of Omaha, the same architects that designed Quilt House.

In addition to funding the expansion, the Robert and Ardis James Foundation donated \$1 million to establish a permanent endowment that will provide a stipend to the Quilt House executive director for salary, research and program support. Leslie C. Levy is the first Ardis and Robert James executive director of Quilt House.

—Linda Ulrich

Peter Aaron of Esto Photographics Inc.





Craig Chandler

# Legacies cast in bronze

**O**n a late-summer day when four former U.S. secretaries of agriculture from Nebraska were honored in bronze on the University of Nebraska-Lincoln's East Campus, Ronnie Green already was looking ahead to the need to make room for a fifth and sixth – who knows how many? – statues.

Green, Harlan vice chancellor of the University of Nebraska's Institute of Agriculture and Natural Resources, led the dedication Sept. 20 of statues of J. Sterling Morton, Clifford Hardin, Clayton Yeutter and Mike Johanns.

Only Iowa claims more secretaries of agriculture, with five, but Green assured the crowd Nebraska isn't done.

"When the next secretary of agriculture from Nebraska is appointed, we'll start working on that next statue," he said.

Yeutter's statue is in the Jeanne Yeutter garden, while the other three are placed in an area bound by the East Union, Thompson Library and Filley Hall. With planned renovations to the library and the union, Green said, this Legacy Plaza will become a major focal point on East Campus, where the statues will serve to educate future generations of

students about "these four distinguished Nebraskans who have served our country greatly."

Green said the idea for the statues was born during the celebration two years ago of the 150th anniversary of the Morrill Act, which created the land-grant university system. Yeutter and Johanns were among four former ag secretaries who participated in a panel-discussion Heuermann Lecture that fall.

The statues, privately funded, were sculpted by Matthew Placzek of Omaha, who expressed his joy in getting to know the four men's families over the last couple of years. "To me, to be a part of this wonderful campus is truly an honor," Placzek said.

Yeutter and Johanns expressed appreciation. "I've been a Cornhusker all my life," said Yeutter, a Dawson County native.

Johanns, a former governor now finishing his service in the U.S. Senate, said he too was honored.

"You can't be a senator or governor and not have a very deep, passionate appreciation of what the University of Nebraska means to this state," he said.

– Daniel R. Moser



# Tornadoes

Extension helps Nebraskans weather storms

**U**nusually bad weather — freezes May 14-17; tornadoes May 11 and June 16-17; monstrous hailstorms June 3; heavy rains Aug. 25-26 — pummeled eastern Nebraska's rural and urban areas in 2014.

As agencies geared for emergencies rushed in with water, food and clean-up efforts, University of Nebraska–Lincoln Extension provided research-based information to help people make decisions related to their lives and livelihoods.

June 3 was Nathan Mueller's second day on the job as Dodge County extension educator. Foreboding skies warned him to cut short a field tour; then hail shredded a fourth of the county's crops, ripped siding from structures, shattered windshields.

"People 80 years old had never seen hail like this," Mueller said.

In York, a majority of the city's residential roofs had to be replaced, said Gary Zoubek, York County extension educator. Approximately 80 percent of the county's crops was damaged or totaled.

As the cutoff date for replanting corn was June 14, about 300 producers flocked to extension's three emergency meetings at Bradshaw, Marquette and Uehling.

"Producers are very good at making good decisions from a lot of resources," Mueller said, adding these were the first extension meetings for a few people.

"June was pretty tough," agreed Larry Howard, Cuming County extension educator.

June 16-17 tornadoes whipped through a wide swath of eastern and central Nebraska, and that month northeast Nebraska got doused with 10-plus inches of rain.

Pilger in neighboring Stanton County made national news with two deaths and twin tornadoes. Besides crop and center pivot devastation, a thousand head of cattle, hogs, sheep and horses perished, most in Wayne County. Two area rendering plants worked overtime. The cattle operation most severely hit plans to rebuild a state-of-the-art showcase facility, said Howard, who assisted USDA personnel with assessing damage on about 30 Cuming County farmsteads.

Even though scores of volunteers scoured fields picking up metal, wood and vehicle parts, crops grew so fast that objects still lying in the fields were soon covered up. Fall harvest took longer to complete, as combines carefully avoided objects left in the field.

## 2014 Nebraska weather

**May 15-17 – Freezes northeast, south-central**

**May 11 – Beaver Crossing, Cordova, Sutton (from Clay Center to Elkhorn)**

**June 3 – Three hailstorm tracks encompassing central and eastern Nebraska**

**June 16 – Pilger twin tornadoes including damage in northern Cuming and eastern Wayne counties**

**June 17 – Dixon, Wayne, Cedar counties hit by tornadoes**

**August 26 – Torrential rains of 6-10 inches in York County**

**Sept. 13 – Frost/freeze throughout a broad area of the state; crop damage was none to moderate depending on factors such as maturity and cropping practices**

## Events (as of Sept. 15):

### Nebraska

### on tornadoes

### passing cen-

### ding dam- and south-

### ounty

### plus

After June 16-17, Kim Bearnes, Stanton County extension educator, said five power companies restored power and replaced major lines in the Stanton-Pilger area. They, local fire departments, emergency crews and EMTs were recognized for their rescue efforts at the mid-August Stanton County Fair, alongside root beer floats celebrating extension's statewide centennial.

The Nebraska 4-H Foundation started an emergency youth fund, and proceeds from the Stanton County 4-H Council auction went to Stanton County relief efforts.

Extension's research-based information continued helping, too. By early September, extension was involved with standing-room only meetings, helping Pilger residents envision their future, meeting with FEMA, being involved with tree inventory and replanting, tire recycling and other rebuilding efforts.

"We can help people realize what their future wants can look like," Bearnes said.

—Cheryl Alberts

## Ag journalism by another name? Just as vital

**W**hat's in a degree program's name? Tradition, history, pride, identity, familiarity. But sometimes a program's reach, impact and future outlive its name.

So it was with the agricultural journalism program. Several years ago, faculty realized it was time to rethink the program's name and its focus, to more accurately reflect new challenges and opportunities.

The program's new name is Agricultural and Environmental Sciences Communication program (AESC). It's housed in the Department of Agricultural Leadership, Education and Communication and collaborates with the College of Journalism and Mass Communication.

Students will get plenty of grounding in journalistic principles – don't worry, traditionalists: AP Style, the 5 W's and the inverted pyramid have not been tossed overboard – but with a decided agricultural science bent.

"People want to know 'where does my food come from, how was it processed, how has it been treated and handled,'" said Mark Balschweid, ALEC department head.

Graduates with AESC degrees will be well-prepared for these discussions, Balschweid added.

"The program emphasizes communication strategies about current issues facing natural resources and associated industries," said Professor Roger Terry, who's coordinating the AESC degree program. In addition to communications skills classes, AESC includes courses in strategic communication, issues and crisis management, digital imaging and storytelling, ethical dilemmas in agriculture and natural resources, as well as courses exploring the interaction among people and food production systems.

It's worth noting, Terry said, that some of the most critical public discussions globally this century are focused on those issues. How to feed a population expected to increase from 7 billion to 9 billion by mid-century? What is biotechnology's role in this effort? How do we protect natural resources? Where will tomorrow's fuels come from?

AESC graduates will be well-informed for those conversations, whatever fields they choose, Terry said.

"This is about how do you communicate about these complicated issues that are often very controversial," said Assistant Professor Karen Cannon.

The AESC degree is attractive and beneficial to students expecting to find a career in communications due to its grounding in science.

— Daniel R. Moser

### HEUERMANN LECTURES

#### Genetically Modified Animals: the Facts the Fear Mongering, and the Future



Speaker: ALISON VAN EENENNAAM

JANUARY 13, 2015 | 7:00 P.M.

NEBRASKA INNOVATION CAMPUS  
CONFERENCE CENTER



Livestreaming at:  
[heuermannlectures.unl.edu](http://heuermannlectures.unl.edu)





# Nebraska LEAD Program

## Preparing Agriculture's

**S**ince the Nebraska LEAD Program's beginning 33 years ago, its mission has remained "to prepare and motivate men and women in agriculture for more effective leadership."

The Nebraska LEAD Program is a two-year leadership development program for Nebraskans involved in agriculture. Each year up to 30 men and women are selected and partake in seminars, college and university visits and national and international study/travel seminars. Over the last 30 years, LEAD fellows have visited around 90 countries.

The Nebraska Agricultural Leadership Council founded the Nebraska LEAD (Leadership Education/Action Development) Program in 1981 in cooperation with Agricultural Builders of Nebraska Inc. and the Institute of Agriculture and Natural Resources at the University of Nebraska-Lincoln. Its first director was Jim Horner, who served for three years, followed by Allen Blezek, who served for 23 years.

Since its start, the program has grown in graduates and support, but its roots remain the same: developing future leaders.

"We put out a good product, and when you put out a good product, people invest in that. We continue to be cutting edge and up-to-date on what issues are out there," said LEAD Program director Terry Hejny.

Water, energy, food and food safety have long been LEAD issues and will continue to be.

"This program has been very blessed by support of the university, commodity boards, organizations and foundations," Hejny said. "We are lucky to have this program, and I am lucky to be a small part of it."

Hejny has served as LEAD director since September 2007.

Hejny, a LEAD 20 graduate himself, said it's been a learning experience.

"It's been challenging, exciting and a pleasure to work with the people I get to come in contact with," he said.

LEAD Fellows become better communicators and better listeners. They take away more self-confidence, understanding how they can make a difference and discover their passion.



Photos courtesy LEAD

Members of LEAD 33 tour the U.S. Capitol in Washington, D.C. LEAD fellows partake in national and international study/travel seminars as part of the program.

## LEAD Offers its Alum Network

**I**n 1988, Karen Ross was a graduate of LEAD 6. Today Ross serves as Secretary of the California Department of Food and Agriculture.

Secretary Ross, a native of Banner County, said she was very fortunate to have the opportunity to be a graduate of the two-year leadership development program for Nebraskans involved in agriculture.

"It was something I always knew I wanted to do because of the people I met who had gone

through the program," Ross said. "A lot of how I operate now comes from that two years of experience and exposures."

When Ross applied, she was working for the late Sen. Edward Zorinsky, who was on the ag and foreign relations committee.

"I met a lot of people who had been graduates of the first class. I was so impressed with the caliber of these people," she said.

Ross said she learned a lot, including communication skills,

# Future Leaders



LEAD 32 members visit the Panhandle Research and Extension Center at Scottsbluff. The Nebraska LEAD Program is a two-year leadership development program for Nebraskans involved in agriculture.

The LEAD network of 900-plus alum and experts across the U.S. and world is invaluable.

Applications for LEAD 35 are due June 15. For more information, visit [lead.unl.edu](http://lead.unl.edu).

– Sandi Karstens

## Like No Other

listening and understanding, articulating, being open to all different perspectives and the LEAD network, which has been invaluable.

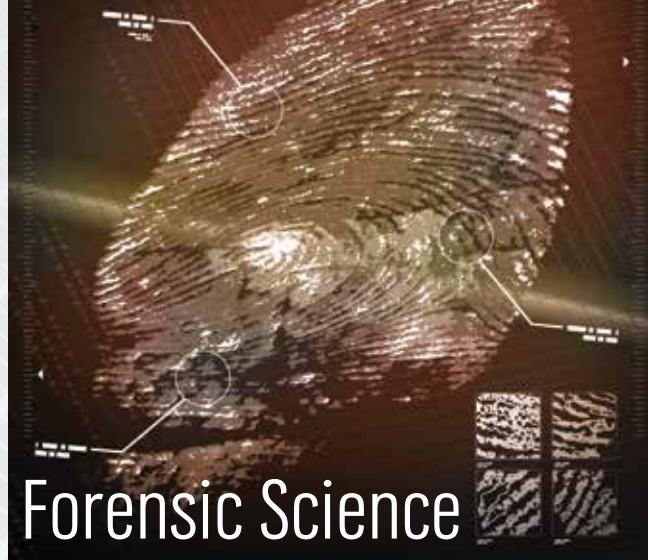
Ross remembers visiting rice paddies in West Africa with three guys from Western Nebraska on her International Study tour.

She said her LEAD travels were her first overseas and “opened a world of possibilities.”

– Sandi Karstens



Members of LEAD 31 stand outside the Hanoi University of Agriculture in Hanoi, Vietnam. Over the last 33 years, LEAD fellows have visited almost 90 countries.



UNL’s forensic science degree program is about teaching tomorrow’s professionals in a variety of fields a whole new set of problem solving skills, says Larry Barksdale.

Barksdale, a former police detective, coordinates the crime scene investigation option for the program, which is housed in UNL’s CASNR Dean’s Office, while Ashley Hall coordinates the program’s other option, forensic biochemistry.

Since the program’s inception more than seven years ago, Barksdale said, some students have been attracted to the crime scene investigation option by the popularity of TV shows. Many are surprised by the science content of the program.

He pointed to a variety of fields, including firefighters, emergency medical services, crime-scene investigators, military police and agricultural investigators – all of which demand greater scientific and technical skills than ever before. “It’s a whole different set of problem-solving skills,” he said.

Hall added that today’s emergency medical technicians, for example, are performing procedures in the field that used to be the purview of doctors in hospitals.

Students who take the CSI option will find themselves taking more than 20 hours of chemistry and biology courses, for example.

Hall notes that the biochemistry option could lead to a career as a DNA analyst or on to graduate school in a number of fields. A degree in either option prepares a student well to teach science too.

In the capstone course, CSI option students work a crime scene, collecting evidence and sending it to the biochemistry students, who study it in the laboratory.

– Daniel R. Moser





## Togetherness

Programming at the West Central Research and Extension Center at North Platte has become more efficient as cross-disciplinary team members now have offices closer to each other. With the 2,400-square-foot expansion to the northwest corner of the Snyder administrative building, the building now provides technologically advanced work space for 60 people. These include 12 faculty, four extension educators, and up to 16 graduate students and post-docs; as well as technicians, a district forester and others. Before the addition was completed earlier in 2014, faculty and students were housed in up to four different buildings, each with varying technology and temperature capabilities. Being in the same building means a freer flow of information exchange for students and their advisers. Other space on campus now is freed up for housing development for up to a dozen grad students conducting crop, range or livestock research within the district for up to three months at a time.

## Sustaining Production

With the escalating cost of farmland and operating a farm, farmers and those interested in beginning to farm may look at value-added and sustainable enterprises. Since 2005, UNL Extension has hosted an annual southeast Nebraska diversified agriculture tour, with support from the federal Sustainable

Agriculture Research and Education program. Enterprises that continue to develop and contribute to the local economy include pasture and free-range poultry and eggs, production, woody florals, aronia berries, natural grass fed beef, direct marketed pork and goat milk products. The tour has helped facilitate development

of a network of sustainable farms and local food producers, some of whom become mentors to new farmers. An eastern Nebraska magnet school showing youth how to grow vegetables, and fish through a water-saving aquaponics system, also was a tour stop this year.



## Community Vitality

Fostering Nebraska's future is the underlying mission of the new Community Vitality Initiative (CVI) launched in March 2014 by UNL Extension. The initiative focuses on expanding partnerships to build communities and businesses that thrive, where entrepreneurs have access to the resources they need, and young people want to live and work. Its goals include having community and infrastructure support for entrepreneurship and business development; to

grow businesses and jobs; and expand Nebraska's food and agro-tourism industries. CVI's multidisciplinary teams include faculty and staff from agricultural economics; child, youth and family studies; textiles, merchandising and fashion design; the Engler Agribusiness Entrepreneur Program; the Rural Futures Institute; all of the University of Nebraska campuses; and external partners.

# GOING<sup>2</sup> FOR<sup>4</sup>

[youtu.be/kmNWmqwP5fo](http://youtu.be/kmNWmqwP5fo)

Starting fall 2014, students at the Nebraska College of Technical Agriculture may enroll in UNL's new Bachelor of Applied Science degree while remaining on the Curtis campus. As they work on their bachelor's degrees at the traditional two-year college, NCTA students will have full access to their standard support services. These include living in residence halls while having access to their familiar advisers, as well as financial aid assistance, and local library and computer services. During their junior and senior years of the program, students at NCTA will take online courses from the College of Agricultural Sciences and Natural Resources at UNL, in addition to some NCTA courses. This fall at least 10 NCTA freshmen were interested in participating. Officials say interest will grow as students hear more about the opportunity.

## Form follows function

Exploring the elements of design – color, texture, line, shape, form – can be a fun introduction to an exciting career. UNL Extension 4-H's new Design My Place offers activities for youth ages 8 to 12, while introducing them to home environment and home interiors. Design My Place allows youth to create items for their own space or home while learning about using materials such as fabric, metals, wood and yarns. Youth can enhance the project's many

activities with their own ideas; they also learn to identify and solve health and safety problems by caring for their space. The project may go for a year or more, and the project's companion poster helps participants track progress and home environment knowledge.



A pest-free environment – and an environment free from pesticides – is the goal of UNL Extension's Integrated Pest Management (IPM) program. Particularly with schools and child care operations, IPM is important because children's small size and fast metabolism make them more susceptible to long-term ill effects of pesticides. Working with Nebraska metropolitan and tribal schools, extension promotes IPM's preventative measures to keep insects and rodents out of buildings. This is a change from a decade ago when schools routinely applied pesticides, regardless of pest presence. IPM includes increased sanitation, such as cleaning drains and surfaces, sealing holes, using sticky traps to catch pests, and transferring pasta and cereals into plastic containers – roaches feed on the glue in cardboard boxes.

An IPM coalition of extension, government and state agencies, tribal representatives, industry professionals, and environmental and health officials meets quarterly.

[pested.unl.edu/schoolipm](http://pested.unl.edu/schoolipm)

## Raising Nebraska

[raisingnebraska.net](http://raisingnebraska.net)

Connecting consumers with the farmers who grow food is the goal of an ambitious 25,000-square-foot exhibit that debuted at the 2014 Nebraska State Fair. Titled "Raising Nebraska: Your food and the families who grow it," the interactive, year-round exhibit ties into IANR's agricultural and science literacy initiatives. For example, visitors have the opportunity to learn about Nebraska's eco-zones on a walkable map that explains climate, soil, growing seasons, crops and livestock. A center pivot span helps learners understand Nebraska's water resources and how modern farmers conserve water. A virtual combine cab demonstrates the high-tech world of modern farming and a grain bin theater showcases short films about Nebraska agriculture. The exhibit, jointly sponsored by the Nebraska Department of Agriculture, Nebraska State Fair and IANR, also highlights agricultural and natural resources career opportunities.





# Rerucha: Business's roots run deep

**A**aron Rerucha was nervous. He hadn't done much public speaking, maybe just one speech class. Yet there he was, standing before the crowd and the judges and the other competitors at UNL this past December in the first-ever Engler Agribusiness Entrepreneurship Program Business Plan Competition.

It helped that he loved his plan so much – for a business inspired by the love of his family and the Nebraska dirt, and his deep roots in it.

"I just got up there and presented what I love," says Rerucha, who grew up in David City, Neb. "And I felt the Lord speak through me and out to the people."

His plan was for a business he named Oxbow Natural Landscaping, which would focus on bringing back the historical significance of the Nebraska prairie by creating natural landscapes for clients. All the materials used would be native to Nebraska and the Midwest.

Aaron spoke of his Nebraska ancestors, who were farmers and craftsmen and who inspired the business plan (in the winters, he says, he'll make furniture from Nebraska wood). He spoke of a 24-acre plot of land a few miles south of Columbus, where his business would be located. It's a plot of land that's been in the family for generations. Aaron used to walk it with his grandpa and listen to stories about the land, and about how the ancestors survived the Dirty '30s and the Dust Bowl days.

He spoke of how his grandpa had researched the plot and discovered that both the Mormon and the Oxbow trails had traveled through the property. He'd found the ruts and pointed them out to Aaron. His grandpa developed that plot into a little park, a sanctuary for Nebraska history.

Aaron says that when his grandpa passed away, he thought this would be a perfect opportunity to build his business on that little plot of dirt, and to merge his dream with his grandpa's.

"I think he would be super excited."

After presenting his plan, Aaron sat back down, just happy to have it over.

Then the judges announced the winner: Oxbow Natural Landscaping.

"I was sitting there, on my computer typing, and I didn't think I was going to win, to be honest," he says.

"It took awhile for it to register. I was sitting there and they were waiting for me to accept my award and I thought, 'Praise the Lord, I just won this competition!'"

He also won the \$4,000 grand prize.

He wants to thank Nebraska native Paul Engler, the Hall of Fame Texas cattleman whose gifts to UNL created the Engler Agribusiness Entrepreneurship Program, located in IANR. Aaron, who will graduate in the spring, is majoring in Horticulture/Landscape Design and minoring in Entrepreneurship. He's proud to be an Engler Scholar.

He's proud to be a Cabela's scholarship recipient, too.

"Scholarships are vital," Aaron says. "The ones I have gotten have really helped me get through school with minimal to zero debt, and so a huge thank you goes out to all of the donors."

One time, he heard Engler speak at UNL about how entrepreneurs must have a fire in their belly. Aaron knows he has it.

And half a year after that business-plan competition, his business is on fire.

"Things are going very well," he says this hot July day, taking a break from working on a project in David City. "The way it's looking, I have business for pretty much all of next year lined up already."

–Colleen Kenny Fleischer

His plan was for a business he named Oxbow Natural Landscaping, which would focus on bringing back the historical significance of the Nebraska prairie by creating natural landscapes for clients.

Craig Chandler

# in Nebraska soil



## Integrated Science

A new University of Nebraska–Lincoln College of Agricultural Sciences and Natural Resources degree will give students an individualized program of study in the university's Institute of Agriculture and Natural Resources.

The program, which centers on food, fuel and water, allows students to create their own unique interdisciplinary program of study, said Tiffany Heng-Moss, CASNR associate dean and entomology professor.

"This is for motivated students who have a clear sense of what their career goals are and what their interests are," Heng-Moss said.

Students must obtain approval to enter the degree program. Its goal is to produce highly skilled professionals with career-ready skills, including problem solving, critical thinking, effective oral and written communication, entrepreneurship and more.

Students will have a foundational knowledge in agricultural sciences and natural resources and will be qualified for advancement in several fields of study or work in the food, energy, water and environmental sectors.

Heng-Moss said all students will take an introductory freshman course, do a capstone course and meet all ACE requirements. In addition, students will have several concentrations, international studies and one minor.

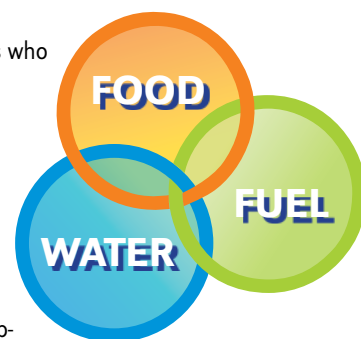
The minor can be completed in or outside CASNR. There also are opportunities for experiential learning, internships, research, and education abroad and domestic experience.

"Students coming into this program should have a goal and a thorough background of degree programs they might want to consider," Heng-Moss said. "Current CASNR students who realize they want to put something together in a science-based area, but more transdisciplinary in nature, may also find this degree fits them. In addition, students who definitely know they want a career track in industry also can develop that relationship and build that framework with industry with this degree."

Drew Ratterman, workforce leader at Dow AgroSciences, said the integrated science degree will be highly effective for UNL students to prepare academically and professionally for the challenges they will face upon graduation.

"The skills and competencies necessary to succeed in a career or to advance agricultural systems continue to increase in complexity," he said. "This will help develop a unique curriculum that will meet industry needs for skilled employees that can be successful in today's agricultural environment."

– Sandi Karstens





# Click2Science Helps Volunteers

## Get Better at Teaching STEM

**A** new online program will help those that work in out-of-school programs serving young people gain the science skills they need to connect youth to science, technology, engineering and math, or STEM.

Click2Science, developed by University of Nebraska–Lincoln Extension in partnership with the NOYCE Foundation, is an interactive, professional development site for trainers, coaches, site directors or any other frontline staff/volunteers working in out-of-school programs serving children and youth, said Kathleen Lodl, UNL Extension associate dean.

“The whole concept is to help the people who are developing out-of-school programs engage youth in STEM,” she said.

A lot of times, those frontline staff aren’t comfortable with teaching STEM, Lodl said. This professional development resource, available at [www.click2sciencepd.org](http://www.click2sciencepd.org), will help empower those coaches, trainers and others to connect kids to STEM careers.

The program is based on 20 critical skills through coaching, formal training and meeting scenarios. These skills are focused in three areas: planning STEM experiences, interacting with youth during STEM, and building STEM skills. Each of the skills is taught through video-based modules where front-line staff can see these skills being modeled in a variety of out-of-school settings.

In addition, the site provides resources that trainers can use to teach front-line staff and opportunities to engage with other professionals, blogs and a community forum.

– Sandi Karstens



“The whole concept is to help the people who are developing out-of-school programs engage youth in STEM.”

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# Quarter Scale Team–3D Printer

**Y**ou wouldn't know it to look at it, but the latest tractor created by the University of Nebraska–Lincoln's Quarter scale Tractor Team was partly created with a 3D printer.

Specifically, its corn cob throttle and fenders were produced by the nearly refrigerator-sized printer in Chase Hall on East Campus.

The process gives members of the quarter scale tractor team an opportunity to experiment with complex technology that's becoming increasingly common in the workplaces they'll be entering over the next few years, said Roger Hoy, professor in biological systems engineering and one of the team's advisers along with Joe Luck.

Aaron Vancura, a senior agricultural engineering student and member of the team, said the process is surprisingly easy. It involves drawing up the part using a program called SolidWorks.

Hoy said the program and printer also can be used to create molds for metal parts.

The 3D printer technology is making its way into many fields. For example, the international space center has one to produce replacement parts if it needs them. Someday, Joe Luck predicted, they will be commonly used in agriculture – for example, to produce replacement parts for farm equipment at a fraction of the cost and time it now takes.

The printer located at Chase is about two years old and cost around \$35,000.

About 25 UNL students are involved in the quarter-scale tractor team. Teams are given a 31 hp Briggs & Stratton engine and a set of Titan tires. The design of their tractor is up to them. They gain practical experience in the design of drive train systems, tractor performance, manufacturing processes, and analysis of tractive forces, weight transfer, and strength of materials. In addition, they develop skills in communication, leadership, teamwork, fundraising, and test and development. Industry experts judge each design for innovation, manufacturability, serviceability, maneuverability, safety, sound level, and ergonomics.

Teams submit a written design report in advance and on-site they must sell their design in a formal presentation. Machines are put to the performance test in four tractor pulls and a maneuverability course.

– Daniel R. Moser



Dan Moser

UNL's 3D printer was used to create this corn-cob throttle and the front fenders on this quarter-scale tractor.



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# An international perspective

**C**handler Mazour always looks to be on the cutting edge, to live in a world with more questions than answers.

So when he was offered the role of Technology Development Lead for Ukraine and Russia it would have been very hard to say no. Mazour leads a team of technology development representatives and field trial specialists for Monsanto in Ukraine and Russia.

“When I met the people in Russia and Ukraine, they were wonderful. Then, when my wife first visited Kiev, then Budapest, that really signed the deal. We felt comfortable and safe and wanted our kids to have an international experience to broaden their perspective. I can assure they are getting that,” he said.

Mazour started his new position with Monsanto in January 2014. He was previously the manager of the Monsanto Water Utilization Learning Center at Gothenburg.

While Mazour works in Ukraine and Russia, he and his family live in Budapest, Hungary, and he commutes to both countries as well as many other European countries.

Mazour and his team focus on bringing and supporting new products in the market, commercial support (training, farmer visits, etc.) and transferring knowledge to Monsanto’s sales and key account teams.

He said the best thing about his new job is the opportunity for his team to make a big difference in crop production very quickly.



As far as safety, Mazour said Monsanto has a very strong security team to ensure the safety of its employees and safety is their No. 1 priority.

Mazour grew up on a farm near Lawrence. He has an MBA from the online Capella University. He is a 1993 College of Agricultural Sciences and Natural Resources agronomy graduate, and in 1996 earned his master’s degree from UNL in plant and breeding genetics.

Mazour said while his aspirations to work overseas developed later in life, his time in CASNR

Chandler Mazour is Monsanto’s Technology Development Lead for Ukraine and Russia. He and his team focus on bringing and supporting new products in the market.

taught him how to think and evaluate challenges.

“I think one of the most important things CASNR can do for students is to teach them to be present, think and challenge, and then develop a deep perspective of agriculture and the world,” he said.

He added that UNL faculty George Graef, James Specht and Don Lee were instrumental in challenging him to think differently.

— Sandi Karstens

**Let's work together to grow IANR.**

If you would like to give us a hand and help IANR grow, contact Ann Bruntz, [abruntz@nufoundation.org](mailto:abruntz@nufoundation.org), 402-458-1176; or Josh Egley, [jegley@nufoundation.org](mailto:jegley@nufoundation.org), 402-458-1201

**CAMPAIGN for NEBRASKA**  
UNIVERSITY of NEBRASKA FOUNDATION

## Support set in stone

**S**upporters of the College of Agricultural Sciences and Natural Resources now have a way to declare it in stone.

For \$250, donors can purchase a 6 x 12 brick; or for \$750, a 12 x 12 brick. The first round of brick donors saw their bricks installed in the courtyard on East Campus, north of Agricultural Hall.

Your brick can be engraved with your name or that of a friend, favorite professor, family member—anyone who you would like honored at CASNR. Funds raised from donations to the CASNR Alumni Brick Program will be used to create an endowment for scholarships that will be awarded by the CASNR Alumni Association to incoming CASNR freshmen.

Bricks ordered by Aug. 1, 2015, will be included in the installation scheduled in the fall of 2015. Bricks ordered after Aug. 1 will be included in the fall 2016 installation ceremony.

Inscribed bricks will be installed once a year, in conjunction with the CASNR Alumni Football Reunion.

[nufoundation.org/casnrbuyabrick](http://nufoundation.org/casnrbuyabrick)

## No place like CASNR

**W**e are at an exciting point in CASNR's history. East Campus is thriving with new buildings, increasing enrollment, and a strong alumni network.

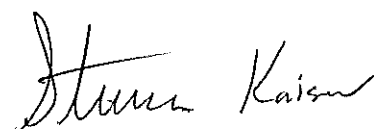
Recently, that CASNR Alumni Association hosted the annual Alumni Tailgate and Silent Auction. It was a great turnout and fun was had by all. The silent auction brought in over \$3,500 that will go toward scholarships for incoming CASNR students. Thank you to everyone who attended, donated, and helped drive up bids! Dean Waller really appreciates it, especially the donated cockroaches!

I have many fond memories of CASNR, as I am sure is the case for all of you. Most recently I think back to the first annual Brick Installation Ceremony. It is surreal to think our bricks will forever be a part of the strong CASNR foundation. Engraved bricks are placed north of Agricultural Hall, where they will be enjoyed by all who walk through campus for generations

to come. To those that have already bought bricks, thank you. To those that have not, there is still time to participate.

To request an order form or for more information about the CASNR Alumni Brick Program, please go to [nufoundation.org/casnrbuyabrick](http://nufoundation.org/casnrbuyabrick) or contact Jill Brown at 402-472-3224, [jbrown14@unl.edu](mailto:jbrown14@unl.edu); Meg Kester at 402-472-7909, [mkester2@unl.edu](mailto:mkester2@unl.edu); or Ann Bruntz at 402-458-1176, [abruntz@nufoundation.org](mailto:abruntz@nufoundation.org).

Thank you for your continued support of CASNR. We are succeeding in our mission of cultivating and enhancing alumni, current, and prospective student networks thanks to you.



Steve Kaiser  
CASNR Alumni Association  
President



## BUY A BRICK

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Steve and Sammi Kaiser



During the last couple of summers, UNL students got a taste of rural America – for some, their first – as part of the Rural Futures Institute’s intern program. They came back to campus with stories to tell, lessons learned, excitement about the future – theirs and rural Nebraska’s.

## Some of the interns’ stories:

*The internships are funded by an RFI grant program, now in its second year, that provides funding for community-based projects and initiatives. It is a key part of RFI’s goal of working with community and business leaders across Nebraska to build a better future.*



**Alyssa Dye**, senior majoring in agricultural education leadership.

**Hometown:** Alliance

Dye arrived in Neligh for her eight-week internship with project partner Jessica Remaly right after an international trip, where she explored her potential goal of doing community and economic development in foreign countries.

In Neligh, she took on a public works grant project that took her door-to-door for surveys in the town’s low and moderate-income neighborhoods. The rest: A community grant program that provides funding for individuals and businesses that want to beautify their properties.

She also helped with a “This is My Neligh” marketing campaign, including development of 90-second to 3-minute videos that so far have been viewed in about 25 countries. Filming around town with GoPro cameras, Dye said, “we were able to see how this community operates from a behind-the-scenes perspective and uncover treasures in Neligh to promote on a local, state, national and

international level.”

The experience changed Dye’s perspective about rural Nebraska.

“I grew up in a rural community and I valued that as part of my foundation and core beliefs,” she said. “But I didn’t really see myself going back to a rural community ... After doing this internship, I realized I could incorporate my passions and interests” into a rural setting.



**Jeff Story**, senior majoring in English and political science.

**Hometown:** Omaha

Story, a big-city guy planning to pursue a law degree, spent his summer in Red Cloud, hometown of Willa Cather, a fortuitous choice for the English major. “It was awesome to end up in the community where she lived.”

Story’s project in town was to conduct a survey of historical homes, aiming to determine which needed maintenance. They took photos of homes and logged information about their condition. He and his project partner, Jared Knobbe, also organized two community cleanup days.

“The biggest takeaway was it really helped me mature as a

person. Going into a community where I had absolutely no connection showed myself that I could do this again after graduation,” he said. “Everyone was really open to us and we made a lot of friends.”

“I really enjoyed the experience,” he add. “Out of all the summer jobs I’ve had in college I probably got the most out of the Rural Futures Institute internship.”

[youtu.be/khUizhFUyaY](http://youtu.be/khUizhFUyaY)



**Jordyn Lechtenberg**, graduate student in agricultural economics

**Hometown:** Ainsworth

Lechtenberg spent her internship in Holdrege with project partner Cindy Hanson. There, they worked on a community marketing plan that could be emulated by other communities in the region.

The two had an office at the chamber of commerce, with which they collaborated to stir up community engagement. They did a community survey, developed a community advisory team that discussed ideas such as logos and slogans.

Outcomes included a community Facebook page,

suggestions to improve the town’s website, creation of a community marketing video and completion of a community marketing plan.

Lechtenberg said she and Hanson got lots of positive feedback from residents. “They said this project really helped community members speak more positively about what the community had to offer.”

She described it as an “awesome opportunity to really take ownership of a project.”

“I was a little bit shocked at what it felt like to be a new young person in the community,” she said. “It took a lot more work on my end to get engaged and involved, and that’s not on anyone else. That’s on me.”

Lechtenberg hopes to work in rural economic development after she gets her advanced degree. “I feel much more prepared to do that now as a career,” she said.



**Amanda Burau**, graduate student in management and organizations

**Hometown:** Chicago

Amanda and her project partner, Amanda Clymer, took on economic development for this Valley County

## IANR's impact

reaches across the state and around the world. Here is just a sample of IANR's impact by the numbers.

**2,254** Fall enrollment at CASNR



community. Burau's piece was youth engagement, encouraging young people to stay in town or return after their education.

It included a "Where's My Future" program in which juniors from the surrounding area went to Ord, where they participated in a career assessment and learned from community leaders about college and the many roads available toward pursuing your passions.

By the time she left, she had worked with the community to set up a multipronged effort that includes pairing college freshmen with a mentor from the community to help them adjust to college life beyond a rural community; encouraging sophomores to come back to town to speak to high school students about their college experience; showing juniors examples of community members who came back to rural Nebraska after college and became happy, successful career people; and presenting seniors with a graduation gift from the community.

The message throughout is "Valley County wants to see our youth succeed," Burau says. "Get away from that stigma that there are no opportunities in small towns."

The community also came up with a slogan, "Valley County - Where Your Heart Finds a Home." Its release debuted a community recruitment survey Burau put together to bring new faces to Valley County.

"It was quite a culture shock at first," the Chicagoan said of moving to Ord for the summer. "But people were very welcoming. I learned a lot about what it means to come from a rural community."

**28** Husker student athletes enrolled in CASNR



**4** CASNR students who qualified for Collegiate National Finals Rodeo in June



Track 9  
Wrestling 8  
Football 8  
Volleyball 1  
Basketball 1  
Tennis 1

**125** CASNR alumni association bricks sold the first year







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*College of Agricultural Sciences and Natural Resources*



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