



 **GROWING A HEALTHY FUTURE**

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Agricultural Research Division

Nebraska Agricultural Experiment Station

5<sup>th</sup> Annual ARD Faculty Meeting

Thursday, August 16, 2018

**5th Annual ARD Faculty Meeting**  
**AGENDA**  
**Nebraska Innovation Campus Conference Center – Banquet Hall**  
**Thursday, August 16, 2018**

<b>9:30 AM</b>	<b>to</b>	<b>10:00 AM</b>	<b>Coffee/Registration</b>
<b>10:00 AM</b>	<b>to</b>	<b>10:45 AM</b>	<b>ARD Updates</b> <i>Some brief updates from the ARD Leadership Team (e.g., Outcomes of 5-yr. Review and ARD Strategic Planning; ARD Investments Summary; Graduate Education Initiative).</i>
<b>10:45 AM</b>	<b>to</b>	<b>11:00 AM</b>	<b>New Faculty Introductions</b> <i>Welcome our new ARD faculty members, and ask them to share a bit about their background and programs.</i>
<b>11:00 AM</b>	<b>to</b>	<b>11:45 AM</b>	<b>Poster Sharing Session*</b> <i>In this session we encourage you to bring posters that you have presented at other meetings during the past year, as a way to share current work ongoing in your program. Directors of Centers/Institutes/Initiatives are also invited to bring posters describing their organization. We will provide board space in the NIC banquet area to accommodate the number of posters indicated in your pre-registration*.</i>
<b>11:45 AM</b>	<b>to</b>	<b>Noon</b>	<b>Report Out – New Knowledge and Connections Gained from Poster Session</b>
<b>Noon</b>	<b>to</b>	<b>1:00 PM</b>	<b>Lunch</b>
<b>1:00 PM</b>	<b>to</b>	<b>1:30 PM</b>	<b>Communicating IANR Research Success</b> <i>Haley Apel, IANR Media Specialist, will share the process for communicating research success from IANR and UNL, as well as examples of recent announcements, and will lead Q/A discussion.</i>
<b>1:30 PM</b>	<b>to</b>	<b>2:30 PM</b>	<b>Innovation in ARD Team Science</b> <i>ARD Faculty Members have been engaged the ongoing IANR strategic visioning discussions, and continue to carry out team science aimed at complex research questions. This session will include short roundtable breakouts to discuss – What are examples of emerging teams? – What important topics/opportunities are we missing? – What can ARD do to effectively support team science?</i>
<b>2:30 PM</b>	<b>to</b>	<b>2:45 PM</b>	<b>Break</b>
<b>2:45 PM</b>	<b>to</b>	<b>3:15 PM</b>	<b>The Role of Centers/Institutes/Initiatives in ARD Team Science</b> <i>A new IANR Directors Leadership Council was convened for the first time in June 2018 to provide a forum for the Directors of key Centers/Institutes/Initiatives with primary IANR-affiliation to share best practices and enhance communication and collaboration across their organizations. In the first part of this session, a brief overview of the Leadership Council will be provided, and the two newest Directors to join IANR will briefly describe the mission and programs of their Center.</i>
<b>3:15 PM</b>	<b>to</b>	<b>4:15 PM</b>	<i>This part of the session will include a roundtable breakout to discuss your perspectives on the value, or potential value, of Centers/Institutes/Initiatives in your research programs and careers. What is missing from the current portfolio of IANR Centers/Institutes/Initiatives? How could IANR Centers/Institutes/Initiatives better serve ARD faculty?</i>
<b>4:15 PM</b>	<b>to</b>	<b>4:30 PM</b>	<b>Report Out – Suggestions for Next Events</b>
<b>4:30 PM</b>	<b>to</b>	<b>5:30 PM</b>	<b>Social at The Mill (NIC location)</b>

- Connections

- Collaboration

- Community

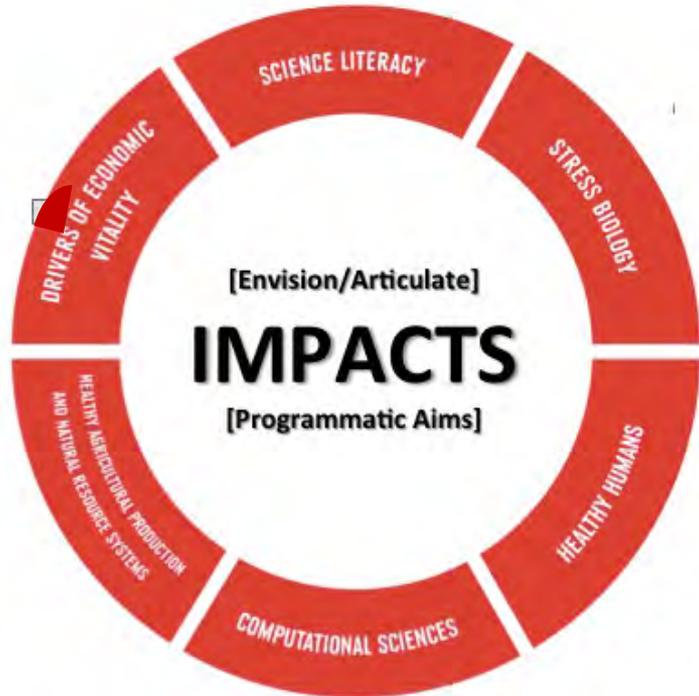
- Introductions

- Engagement

- Feedback

## ***ARD Strategic Framework -***

‘Supporting the Science to Ensure Resilient Food Systems and a Healthy Global Future’



## ***Strategic Operational Priorities -***

1. Support transition of ARD-affiliated Teams and Centers to sustained funding streams as recognized National/International leaders in Innovation and Impact.
1. Achieve new Innovation in Strategic Engagement with Private-Sector Partners.
1. Achieve New Innovation in an Integrated Graduate Education Initiative.
1. Communicate Clearly our Mission and our Successes.

# ARD Team-Building

## DOMINANCE

Priorities: getting immediate results, taking action, challenging self and others

Motivated by: power and authority, competition, winning, success

Fears: loss of control, being taken advantage of, vulnerability

You will notice: self-confidence, directness, forcefulness, risk-taking

Limitations: lack of concern for others, impatience, insensitivity

Questioning  
Logic-focused  
Objective  
Skeptical  
Challenging

Priorities: ensuring accuracy, maintaining stability, challenging assumptions

Motivated by: opportunities to use expertise or gain knowledge, attention to quality

Fears: criticism, slipshod methods, being wrong

You will notice: precision, analysis, skepticism, reserve, quiet

Limitations: overly critical, tendency to overanalyze, isolates self

## CONSCIENTIOUSNESS

## INFLUENCE

Priorities: expressing enthusiasm, taking action, encouraging collaboration

Motivated by: social recognition, group activities, friendly relationships

Fears: social rejection, disapproval, loss of influence, being ignored

You will notice: charm, enthusiasm, sociability, optimism, talkativeness

Limitations: impulsiveness, disorganization, lack of follow-through

Accepting  
People-focused  
Empathizing  
Receptive  
Agreeable

Priorities: giving support, maintaining stability, enjoying collaboration

Motivated by: stable environments, sincere appreciation, cooperation, opportunities to help

Fears: loss of stability, change, loss of harmony, offending others

You will notice: patience, team player, calm approach, good listener, humility

Limitations: overly accommodating, tendency to avoid change, indecisiveness

## STEADINESS

Active  
Fast-paced  
Assertive  
Dynamic  
Bold

D

i

C

S

Thoughtful  
Moderate-paced  
Calm  
Methodical  
Careful



# ARD Investment Summaries -

## ARD Program Investments

\*As of August 1

Funding Category	FY17	FY18	FY19	
Bridge/Revision	\$ 278,097	\$ 10,000		
Foundation Programs	\$ 593,305	\$ 632,007	\$ 696,468	
NIFA Capacity Funding	\$ 2,661,627	\$ 2,451,631	\$ 2,465,589	<-Hatch Multistate/Animal Health/McIntire-Stennis
Research Collaborations	\$ 250,000	\$ 493,427	\$ 461,469	<-USMARC & Global Engagement SPRINT
Seed Grants	\$ 213,399			<-Phenotyping
Startup	\$ 2,623,494	\$ 2,766,044	\$ 1,629,657	
Strategic/Misc Funding	\$ 2,118,999	\$ 3,913,138	\$ 660,685	
Travel Awards	\$ 24,200	\$ 39,985	\$ 11,000	
<b>Totals</b>	<b>\$ 8,763,121</b>	<b>\$ 10,306,231</b>	<b>\$ 5,924,867</b>	

### ROI Example –

#### ARD Bridge/Revision Funding in Calendar Years 2014/15

10 applications received in 2014

4 applications received in 2015

Overall success rate: 8 awards/14 applications = 57% success

Total amount requested: \$891,192

Total amount awarded: \$488,947

Average award size: \$61,118

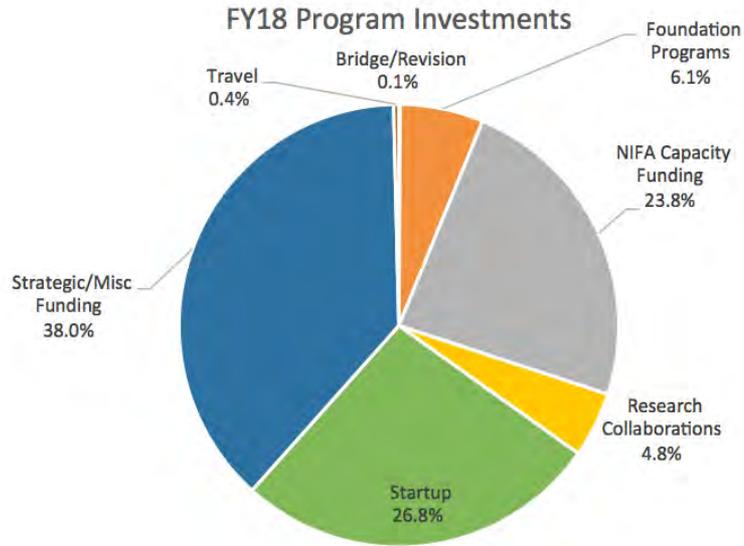
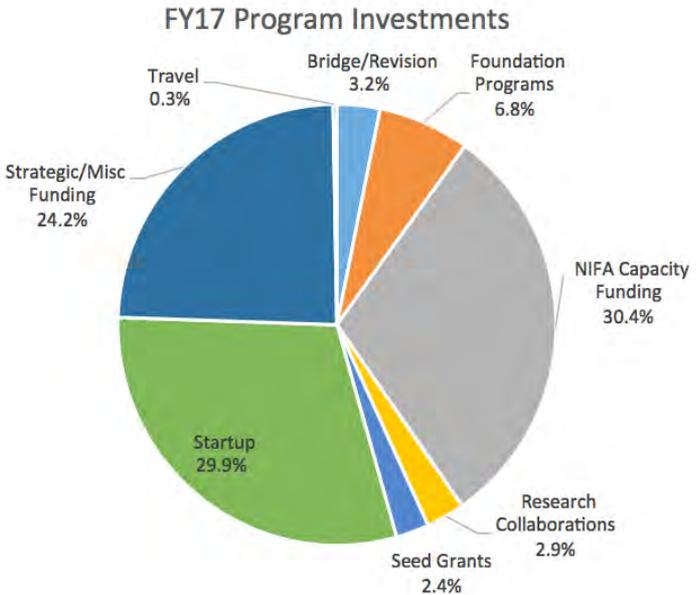
Number of PD/PI with external funding from Bridge/Revision Grant: 5

5/8 = 63% of awardees received external funding after the IANR Bridge/Revision grant

Amount of External Funding Leveraged: \$3,720,580

**>7.6 fold return on investment.**

# ARD Investment Summaries -





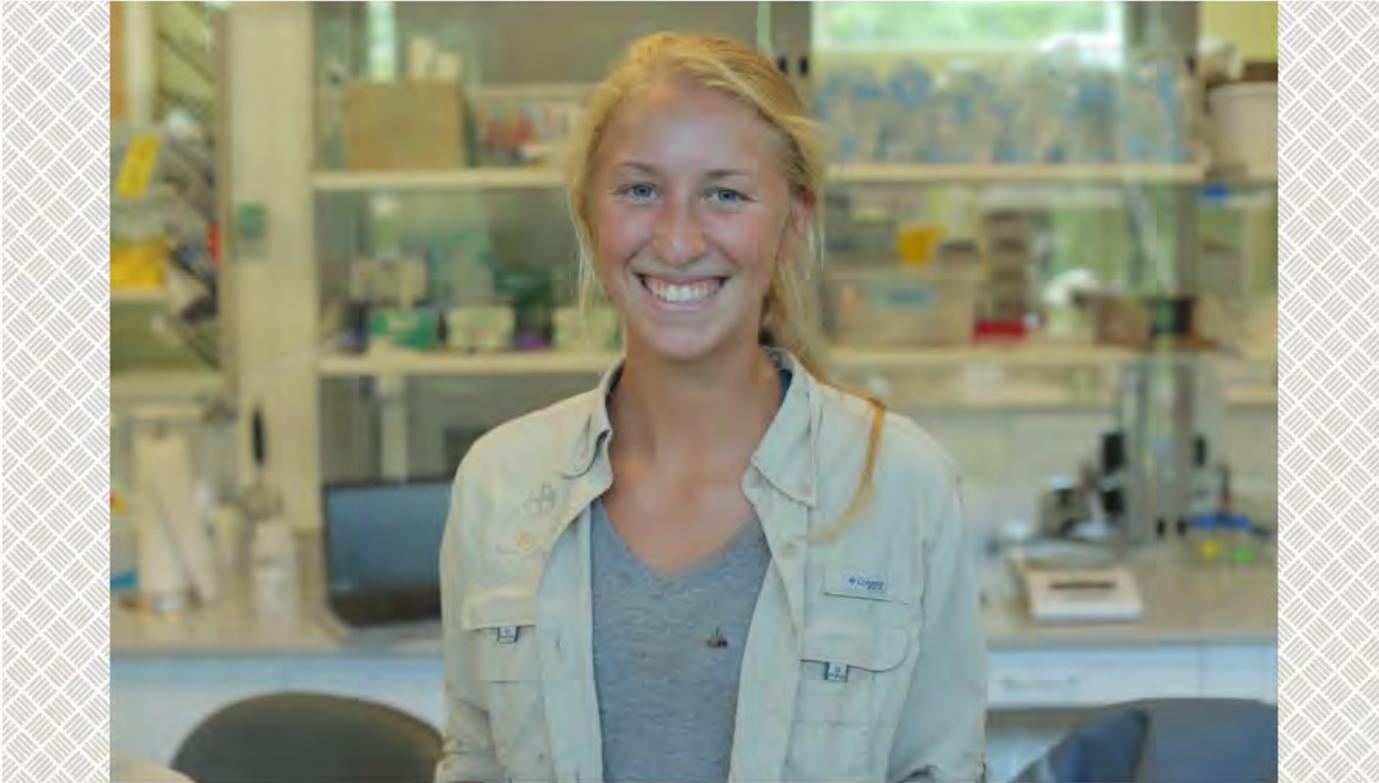
# Innovation in Graduation Education

## *Enhancing Potential Career Paths Outside Academia*

- Build on existing and potential company partnerships in trans-disciplinary science
- Leverage Partnerships at Nebraska Innovation Campus
  - Provide participation in collaborative projects with companies
  - Provide opportunities for professional development training
    - Research Leaders
    - High Performance Teams
    - Project Management
    - Research Entrepreneurship

**Developing Multi-Institutional proposal to the  
Foundation for Food and Agriculture Research (FFAR)**

# Husker entomology student receives FFAR fellow award



Annie Krueger

**CONGRATULATIONS!!**

August 8, 2018



## The 2018 FFAR Fellows

The Foundation for Food and Agriculture Research is pleased to announce the 2018 FFAR Fellows!

*Scroll down to find out more about this year's awardees.*

The FFAR Fellows Program was established to provide professional development and career guidance to the next generation of food and agriculture scientists across FFAR's seven [Challenge Areas](#) and strategic initiatives. By providing early career support to graduate students, the objective of this program is to cultivate supportive relationships between graduate students and industry peers to equip students with the skills needed to facilitate their transition to the workforce.

In addition to a \$2.7 million commitment from FFAR, funding for the program will be matched by a consortium of industry leaders to fund 48 graduate students over three years in both research and professional development areas. By equipping students with the skills needed to excel in today's challenging and fast-paced work environment, the FFAR Fellows Program intends to plant the seeds for the next generation of leaders in the food and agriculture industry.

Introducing the 2018 FFAR Fellows

# Graduate Education Strategic Framework

Develop the vision for the IANR graduate education and align a framework that positions the Institute to:

- Push the boundaries of a traditional academic education to prepare graduates for diverse career pathways
- Provide students with an educational experience that prepares graduates whose leadership, discovery and innovation shape society

**ARD INITIAL COMMITMENT - \$400K**

**#ThisIsCASNR**

# Introductions





RESEARCH  
FAIR 2018

## Submit your successes

Recognizing faculty successes is an important part of the UNL Research Fair. We would like your help in gathering information for the Major Sponsored Programs & Faculty Awards booklet that is printed for the annual fall Research Fair. We seek information from the last fiscal year (July 1, 2017 – June 30, 2018). We are able to publish the recognitions only once because of space limitations. Please submit your successes by **September 13, 2018** for inclusion in the awards booklet.

## Doug Zalesky named ENREC director



# U of Nebraska/USDA Collaborative Initiative



## US Meat Animal Research Center

- 34,000 acres
- 50+ Scientists
- Beef, Swine, Sheep populations
- Farming Operations
- Long history of UNL collaborations



## IANR/USMARC Collaborative Research Commitment (began in FY2014):

- Matching Investments - \$250K each (\$500K total) for each of 5 years
- Current Investment ~\$2.5M

# U of Nebraska/USDA Collaborative Initiative



## Example Projects:

- Role of genotype x microbiome in feed efficiency of cattle
- Integration of genomic information in genetic selection of livestock
- Genetic susceptibility of cattle to bovine viral diarrhea
- Mitigating Salmonella risk in ground beef
- Strategies to improve heifer reproductive longevity
- Development and evaluation of tracking system for animal management
- Understanding porcine embryo elongation using an In Vitro culture system
  
- Sustainable Integrated Beef/Cropping Production Systems
- Mitigate Antibiotic Resistance in Beef Cattle Manure through Composting
- Understanding Attitudes towards Antimicrobial Risk-reducing Practices

# The National Antimicrobial Resistance (AMR) Research & Education Institute



Nebraska Today

@NebToday

Following

"A big deal": [#Nebraska](#) U. is partnering with [@IowaStateU](#), [@unmc](#) and [@uiowa](#) on a new national institute addressing antimicrobial resistance. [bit.ly/2JYfYWq](https://bit.ly/2JYfYWq) [#UNL](#)



## Nebraska partners to fight antimicrobial resistance

The university will help lead a new national institute addressing antimicrobial resistance, an increasingly urgent global public health concern, the Association of P...

[news.unl.edu](https://news.unl.edu)

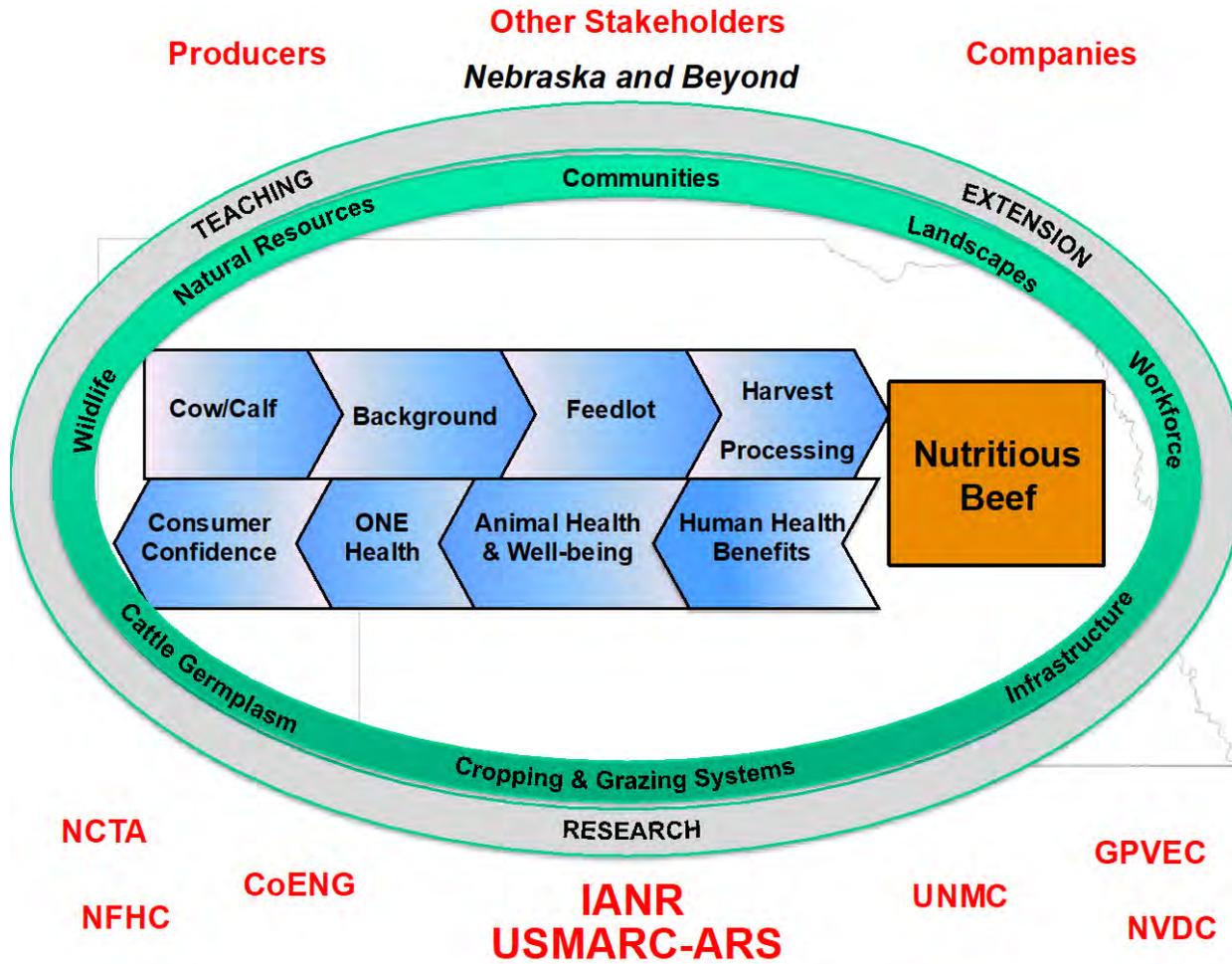
6:45 AM - 26 Jul 2018

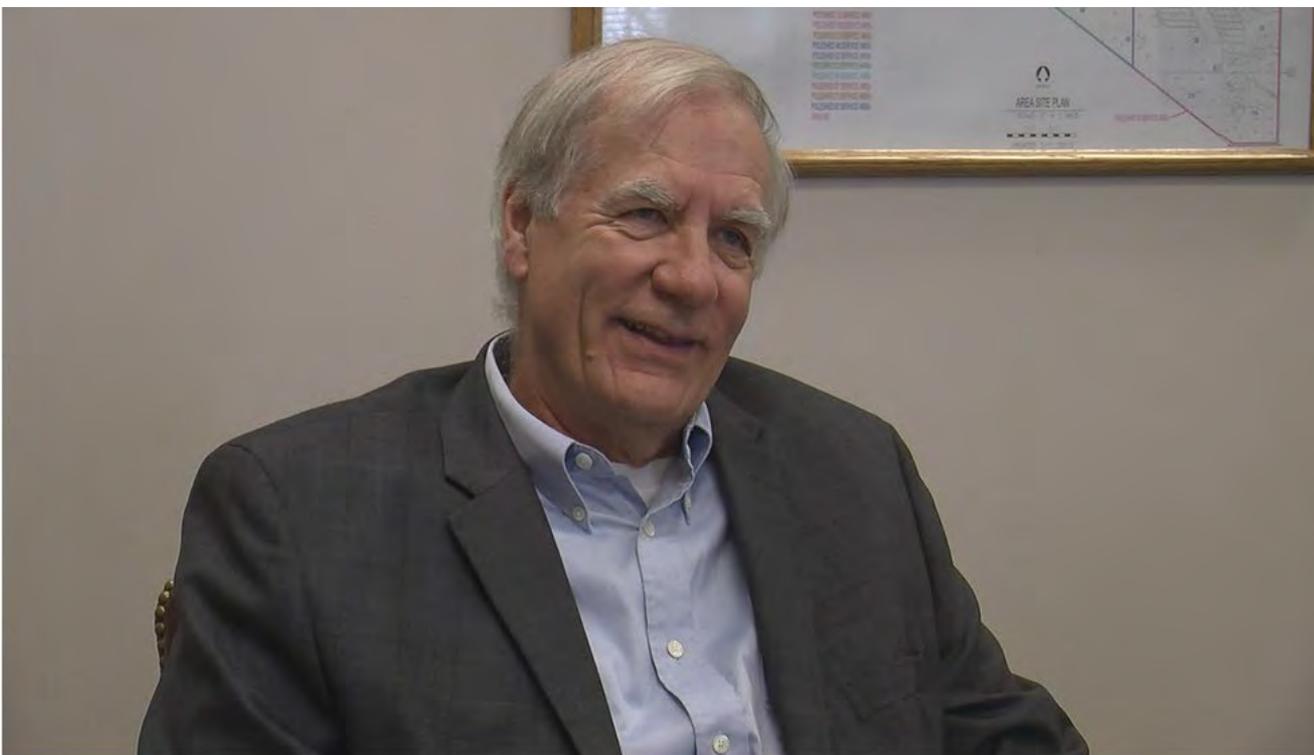
# FFAR Awards \$1 Million Grant to University of Nebraska to Develop Integrated Livestock and Crop Production Systems

📅 POSTED ON OCTOBER 3, 2017    📁 CATEGORIES: [NEWS](#)    💬 NO COMMENTS YET

*Adding Cattle to Crop Fields Shows Potential to Increase Profits and Conserve Resources*







**Dr. John Pollak**

*Research Professor*

*Coordination Lead*

*Nebraska Integrated Beef Systems Initiative*

**WELCOME!!**

# UNIVERSITY OF Nebraska®



**Friday, November 9**  
**Nebraska Innovation Campus**



## **OVERVIEW**

The Collaboration Initiative is designed to help University of Nebraska researchers become more competitive for extramural funding. It helps foster meaningful collaborations that leverage the full intellectual capacity of faculty across the campuses.

## 2018 IANR Director Leadership Council

Center/Institute/Initiative	Director
Redox Biology Center	Don Becker
Nebraska Virology Center	Charles Wood
Nebraska Food for Health Center	Andy Benson
Quantitative Life Sciences Initiative	Jennifer Clarke
National Drought Mitigation Center	Mark Svoboda
High Plains Regional Climate Center	Rezaul Mahmood
Center for Advanced Land Management Information Technologies	Brian Wardlow
Center for Grassland Studies	Steve Waller
Center for Biotechnology	Daneil Schachtman
Center for Plant Science Innovation	Ed Cahoon
Daugherty Water for Food Global Institute	Peter McCornick
Nebraska Center for the Prevention of Obesity Diseases	Janos Zempleni
Industrial Agricultural Products Center	Mark Wilkins
Nebraska Cooperative Fish & Wildlife Research Unit	Craig Allen
The Food Processing Center	Terry Howell

# 2018 IANR Director Leadership Council

## Some of the goals of the IANR Director LC -

- Facilitate new interactions of Center Directors, and exploration of new Center Connections/New Initiatives
- Facilitate interactions with Academic Unit Heads (IANR LC Chaired by Ron Yoder)
- Share 'Best Practices'
  - Strategic Frameworks/Plans
  - Sustainable Business Plans
  - Team-Building
  - Shared Faculty Evaluation
- Strengthen Mentoring and Support for Director Development
  - Annual Evaluation
  - Support for Director Professional Development Plans

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# Communicating IANR Research

Haley Apel – IANR Media Specialist





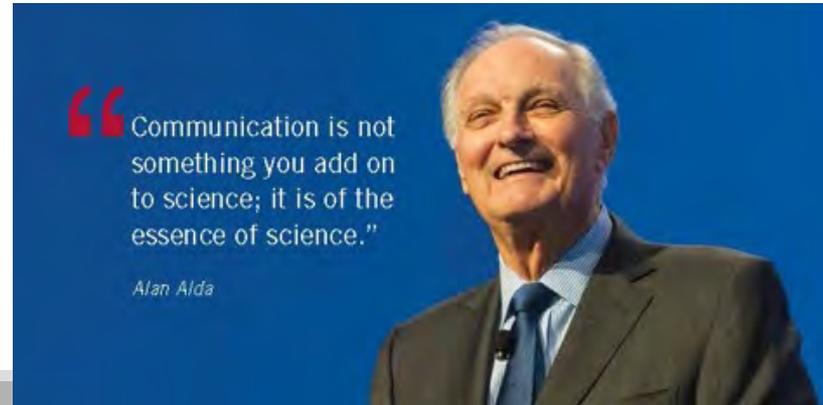
# Communicating IANR Research

1. Why is it important to communicate my research?
  2. What's the process for communicating my research?
- 
3. How have IANR research projects successfully been shared historically?

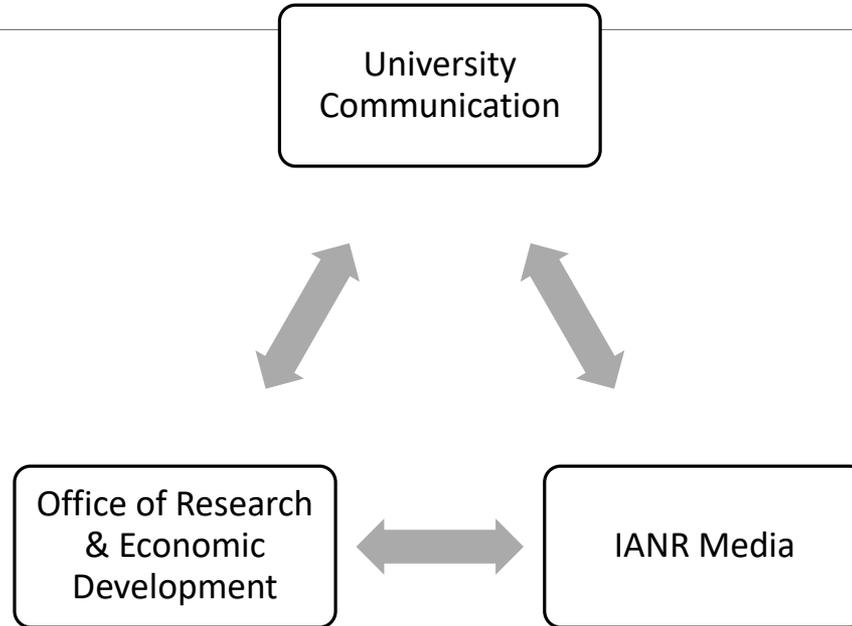
# Why is it important to communicate my research?

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- Reinforce land-grant mission
- Translate research into sound public policy, grant funding and opportunities for collaboration
- Helps the public make science-informed decisions



# What is the process for communicating my research?



## What is the process for communicating my research?

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1. Confirm sharing permissions, embargo date
2. Identify public value of potential story
3. Contact communicator to discuss story and timeline options
4. Schedule interview with communicator

(cont.)

# What is the process for communicating my research?

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5. Review story from your neighbor's perspective

*“Communication is headed for success when we pay more attention to what the other person is understanding rather than focusing solely on what we want to say.”*

6. Share across all available platforms

# How have IANR research projects successfully been shared historically?

UNIVERSITY OF NEBRASKA-LINCOLN Haley Search

**N** Institute of Agriculture and Natural Resources  
**IANR NEWS**

Nebraska IANR **LATEST NEWS** Husker research to advance tractor testing techniques

**LIVESTOCK** **CROPS** **YOUTH & FAMILY** **FOOD & NUTRITION** **WATER & ENVIR**

## Husker research to advance tractor testing techniques



Devon VanCura, a senior agricultural engineering major, checks a connection for a testing monitor in the Nebraska Tractor Test Laboratory. The facility is the designated tractor testing station for the entire United States. (Craig Chandler - University Communication)

March 21, 2018

Lincoln, Neb. — New research at the University of Nebraska–Lincoln is bringing tractor testing into the modern era.

**N** Institute of Agriculture and Natural...  
IANR @UNL\_IANR

"It's about matching the right tractor to the right implement." - Learn about new research at @UNLincoln looking at the fuel and energy efficiency of tractors. [ow.ly/mP2N30j7IIa](https://ow.ly/mP2N30j7IIa) #UNL @SantoshPitla



12:10 PM - 23 Mar 2018

**N** IANR NEWS NOW

March 22, 2018 Institute of Agriculture and Natural Resources



## Husker research to advance tractor testing techniques

New research at the University of Nebraska–Lincoln is bringing tractor testing into the modern era.

Institute-wide examples

# How have IANR research projects successfully been shared historically?



## Husker research to advance tractor testing techniques



Devon VanCura, a senior agricultural engineering major, checks a connection for a testing monitor in the Nebraska Tractor Test Laboratory. The facility is the designated tractor testing station for the entire United States. (Craig Chandler - University Communication)

March 31, 2018

Lincoln, Neb. — New research at the University of Nebraska-Lincoln is bringing tractor testing into the modern era.



March 21, 2018

## Husker research to advance tractor testing techniques

by Haley Appel | IANR Media



SHARE



New research at the University of Nebraska-Lincoln is bringing tractor testing into the modern era.



## HUSKER RESEARCH TO ADVANCE TRACTOR TESTING TECHNIQUES

AGRICULTURAL SYSTEMS ENGINEERING



Posted APR 16, 2018 | User original publication

New research at the University of Nebraska-Lincoln is bringing tractor testing into the modern era.

University-wide examples



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**NEBRASKA'S CENTER FOR PLANT SCIENCE INNOVATION IS TRANSFORMING AGRICULTURE**

BY UNL CropWatch | July 22, 2018

Home > News > Agricultural News

**BULL SPORTS**

There are no upcoming events.

**VIEW CALENDAR**

**BLOGS**

- Chad Moyer
- Judy Mauch
- Northeast NE Hoops
- Northeast NE Volleyball
- Northeast NE Football

**WEATHER CLOSINGS**

Alerts **Learn** **Register**

**WEST POINT**

Tom Clementer looks in on Lil' Hou, Post-Doc, Research Associate in the Center for Plant Science Innovation, Tom Clementer lab in Beadle Center, March 27, 2018. Photo by Craig Chandler / University Communication

KTIC Radio – West Point

The Grand Island **ag** 77° E-Paper Subscribe - 25¢/day!

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## UNL-led team to research irrigation's role in precipitation

By Shawna Richter-Ryerson UNL Natural Resources | Jul 14, 2018 | 0



Rezaul Mahmood (left), co-leader of the GRAINEX project, talks with a student and co-leader Eric Rappin (right) of Western Kentucky University. (UNL School of Natural Resources) Courtesy to Rezaul Mahmood

The Grand Island Independent

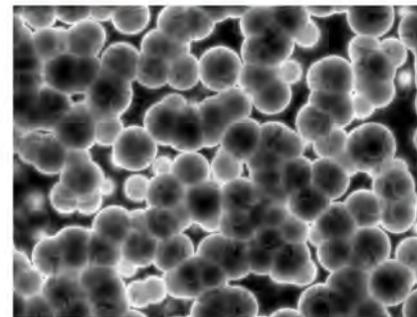
## Regional news coverage

**LIVE WELL NEBRASKA** FITNESS NUTRITION RELATIONSHIPS HEALTH INSPIRATION

**BEHIND THIS BADGE...**

## UNL, UNMC to team up with Iowa State and U of I to fight medicine-resistant bacteria, 'superbugs'

By Rick Fuggles / World-Herald staff writer | Jul 30, 2018 | 1



A field of E. coli cells - a 3D, scanning electron micrograph.

Search...

**ERNEST**

ERNEST

ERNEST

Video: Live Fearless

How do you find balance?

The Omaha World-Herald

## Nebraska's high tech greenhouse puts plants on the right track: BTN LiveBIG

By John Tolley, 1 year ago



When a winter storm whips up on the plains and pummels Lincoln with thick snow and cold winds, researcher Amy Hilske knows just the place to be: the University of Nebraska's Phenotyping Greenhouse.

SHARE:

Big Ten Network

## Fast-spreading trees a headache in Iowa, Dakotas, Nebraska

By GRANT SCHULTE, Associated Press Jul 30, 2017

LINCOLN, Neb. — Trees that suck up sunlight and groundwater at the expense of other prairie plants are creating new headaches throughout the Plains, including Nebraska, western Iowa and the Dakotas.

The eastern red cedar tree spreads so quickly that it catches many landowners off-guard, consuming huge areas of productive rangeland and threatening many of the area's original prairies. At one point in Nebraska, the trees expanded at a pace of nearly 40,000 acres a year — an area roughly half the size of Omaha — until conservationists joined forces with local ranchers to conduct more brush-clearing burns.

Conservationists call it a "green glacier" that started in Texas and Oklahoma and swept north across the Plains into Kansas, Nebraska, western Iowa and the Dakotas.

"It gets worse every day," said John Ortmann, a rangeland ecologist in Ord, Nebraska, who has worked with conservation groups to thin the eastern red cedar population. "Some people say, 'Wait until it's a problem.' That's like saying, 'I'm not going to change my oil until the engine blows up.'"

Associated Press

# National news coverage

**NATIONAL GEOGRAPHIC**

**MOST REC**

Company considering \$ investment in Duluth; employ 450

Joseph B. McNamee

Big Slutz: Dubsque will ship; new fragrance Big Dyer'sville dealership set



A great white shark swims in clear water off Guadalupe Island

PHOTOGRAPH BY SHARON HANDEL; NATIONAL GEOGRAPHIC

## What's Killing the West Coast's Young Great White Sharks?

Sharks are one of the ocean's fiercest predators, but a new study shows how often they're taken down by fishing nets.

BY SARAH GIBBENS

[f](#)
[@](#)
[v](#)

UPDATED MAY 9, 2018

**TWO OF THE** ocean's biggest predators—sharks and humans—are at odds with each other in southern California.

National Geographic

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# Questions?

Haley Apell

UMR Media Specialist

402-472-4388

halapell@unl.edu



## ***Innovation in ARD Team Science***

***1:30-2:30 PM***

*ARD faculty members continue their engagement in Team Science to address complex and wicked problems that leverage their disciplinary strengths and expertise*

*This session will have three 20-minute roundtable breakouts to address:*

- *Break-out # 1 (12 min roundtable discussion and 8 min reporting)*

### ***Examples of emerging teams at ARD/UNL***

- *Break-out # 2*

***What important topics/opportunities are we missing?***

- *Break-out # 3*

***What can ARD do to effectively support team science?***

*Please select a person from your table to take notes, and share the notes via email with Tala*

*Awada [tawada@unl.edu](mailto:tawada@unl.edu) – Thank you!!!*



NEBRASKA  
**FOOD** FOR **HEALTH**  
CENTER *at the University of Nebraska*

Our mission is to prevent diseases and improve health by crop and food production that focuses on feeding you and your microbes



Andrew K. Benson  
Allen Food for Health Presidential Chair  
Director, Nebraska Food for Health Center  
Professor, Department of Food Science and Technology  
<https://foodforhealth.unl.edu/>



NEBRASKA  
**FOOD FOR HEALTH**  
CENTER *at the University of Nebraska*



**What NFHC is:**

- A multi-disciplinary center that unites agricultural and biomedical research across the NU system for the purpose of developing crops and foods that promote wellness

**What NFHC does:**

- NFHC provides the structure to engage facilities, infrastructure, and expertise across the NU system to discover molecules/components of crop plants that affect the human gut microbiome and have the capacity to promote health.
- The NFHC pipeline includes:
  1. *in vitro* phenotyping of grains from plant populations (genotypes) for a health-oriented—the ability to affect the human gut microbiome
  2. validation of candidate plant genotypes (grains/components) in animal model systems
  3. validation of candidate plant genotypes (grains/components) in human clinical trials



## NFHC Programs

### **Discovery** (Dr. Andrew Benson, Dr. James Schnable)

- High-throughput phenotyping of “Microbiome Active Components (MACs)” traits in plants
- Genetic and biochemical identification of MACs

### **Animal Models** (Dr. Amanda Ramer-Tait, Dr. Jeff French)

- Gnotobiotic Mouse Model (opportunities for collaboration on projects of shared interest)
- Common Marmoset (UNO, opportunities for collaboration on projects of shared interest)

### **Human Clinical** (Dr. Jacques Izard)

- NFHC Clinical Facility (NIC, limited opportunities for collaboration with approved IRB)

### **Supercomputing** (Dr. David Swanson)

- Holland Computing Center (HCC)

### **Graduate Fellowship Program**

- Complex Biosystems Graduate Program

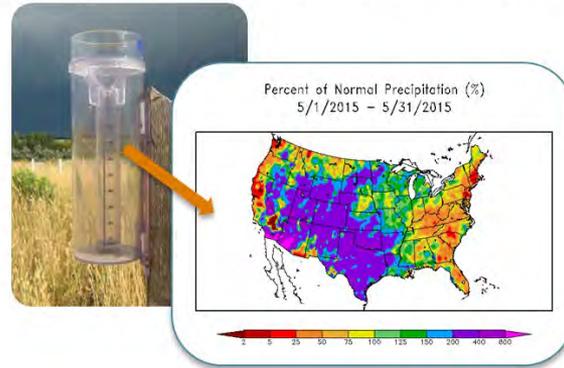
# High Plains Regional Climate Center

**MISSION:** Increase use and availability of climate data and information

We accomplish this mission by:

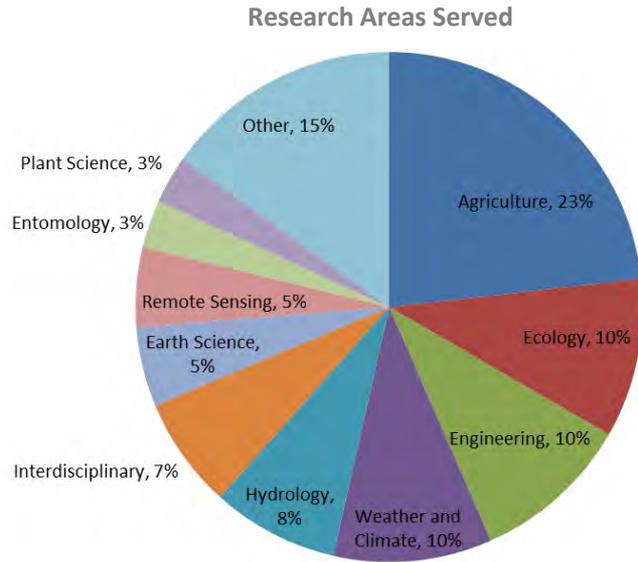
- **Providing climate services**
  - Free expert consultation services for your climate data needs
- **Developing climate data and information products**
  - Sector-specific tools
  - Climate monitoring information
  - Maps, graphs, charts, etc.
- **Engaging our stakeholders**
  - Workshops
  - Hands-on training sessions
- **Conduct Applied Research**

Turning Data into *Usable* Information



# High Plains Regional Climate Center

Meeting stakeholder needs by supporting and participating in applied research



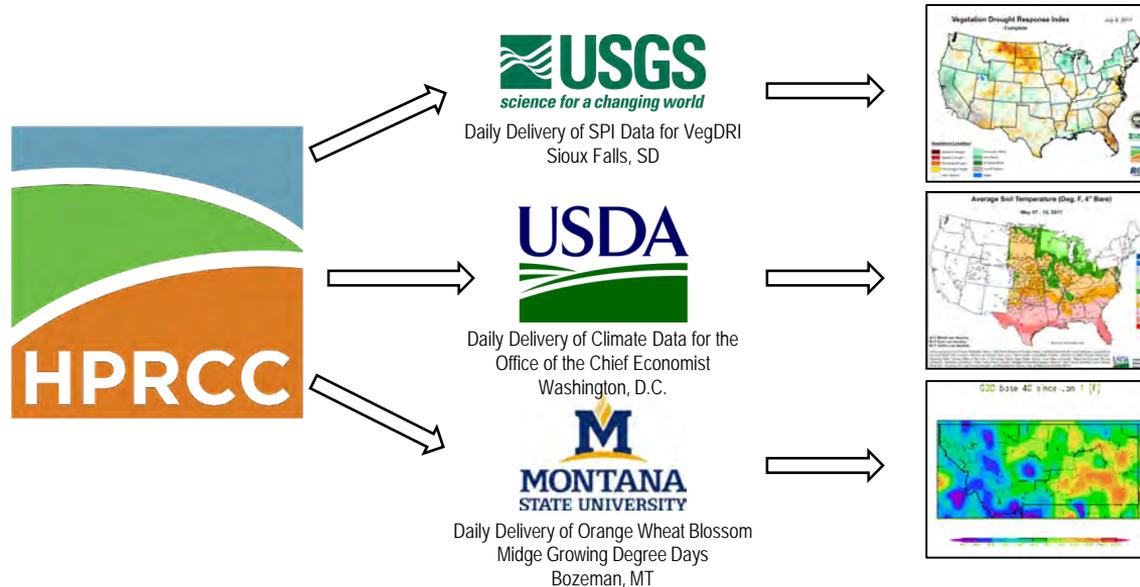
Our Team



From left to right: Shellie Hanneman, Bill Sorensen, Natalie Umphlett, Crystal Stiles, Jamie Lahowetz, and Warren Pettee

# Behind the Scenes

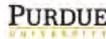
## Effective partnerships strengthen HPRCC program areas



# Team Project Examples

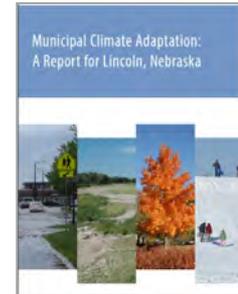
## Transforming Climate Variability and Change Information for Cereal Crop Producers

- Interaction with agricultural stakeholders
- Development of climate information tools



## Increasing the Capacity for Municipal Climate Adaptation Planning in the Missouri River Basin

- Working with sustainability leaders
- Development of tailored climate information reports and web-based tools



# The Food Processing Center

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The FPC exists to support the food industry of NE, the region, the US, and the world

- Over 16 Professional Staff Members
- 534 Projects Completed\*
- 284 Workshop Attendees\*



**THE FOOD PROCESSING CENTER**

*University of Nebraska–Lincoln*

# FPC Services and Scope

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Applied research and engineering- making discoveries relevant to industry

Labeling and regulatory compliance

Analytical testing- chemical and microbiological

Sensory evaluation and testing

Product development

Extensive pilot plants



# Professional Development Opportunities



The Center provides companies with a variety of unique educational and training opportunities so your company can continue to be successful. Each program is designed specifically for the food manufacturing industry. Information is presented by industry and academic faculty experts.

## Services:

- **Better Process Control School**
- **Food Microbiology Workshop**
- **Extrusion Workshop**
- **FSPCA Preventive Controls for Human Food Course**
- **Food Processing Management**
  - **Online Certificate**
- **High Pressure Processing Workshop**
- **Recipe to Reality Seminar**
- **Sanitation Workshop**
- **UNL Craft Brewer's Workshop**

# Allied Research and Service Centers

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Alliance for Advanced Sanitation

Food Allergy Research and Resource Program

National Food Entrepreneur Program

Nebraska Food for Health Center

Daugherty Water for Food Global Institute

Industrial Agricultural Products Center

