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All Hands Meeting October 1, 2012 Nebraska East Union



Roadmap for Today's Conversation



- Land Grant Celebration
- "Paying attention" to the outside world
- Updates on financial status
 - Current financial resources/portfolio
 - Budget setting process
 - NU Foundation progress/status/priorities



Roadmap for Today's Conversation



IANR as a leader for UNL and NU growth

- Major initiative updates
 - Life Sciences
 - Daugherty Water for Food
 - Rural Futures Institute
 - Buffett Early Childhood
 - Global Engagement
- Nebraska Innovation Campus
- 2017 Goals & Progress to Date



Roadmap for Today's Conversation



Plan for Growth – Phase I

- Growth in People and Positions
- Growth in Physical Resources
- Growth in Community
- Growth in "Reach"







Land Grant Celebration





Land Grant Celebration





Land Grant Celebration Planning Team

Linda Arnold Lena Cottle Doug Goulik Deb Hamernik Murd Holland David Jackson Sandy Karstens David Lambe John Markwell Alan Moeller Jon Pedersen Larkin Powell Kayla Schnuelle Andy Benson Ken Dewey Mark Gustafson **Kurtis Harms** Dann Husmann Mike Kamm Adam Kruger Kathleen Lodl Martin Massengale Dan Moser Kim Peterson Jack Schinstock Mark Schroeder Kim Todd

Jill Brown Tom Field Zaneta Hahn **Tiffany Heng-Moss** Scott Hygnstrom Lisa Karr-Lilienthal Rick Koelsch Jacki Loomis **Brad Mills** Judy Nelson **Deloris** Pittman Marilyn Schlake **Brandon Schulte** Dave Wedin











"Miracle Worker"



Role-Model Servants . . .













Paying Attention to the Outside World

- Economy still trying to find its feet globally signs of progress.
- State and local economy still going against the odds <u>Agriculture-based</u>
- Federal situation still grid-locked until after election – no budget, fiscal cliff, no Farm Bill
- "Arab Spring" still evolving and concern over "round 2"
- 2012 year of the "flash drought"

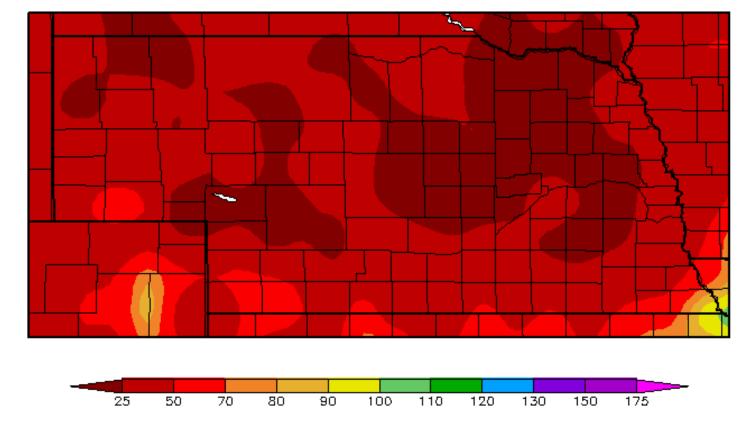




Platte River Time Lapse Project Location: Missouri Confluence May 2011 – June 2012 plattebasintimelapse.com



Nebraska Precipitation, Percent of Normal, June 21 – September 22



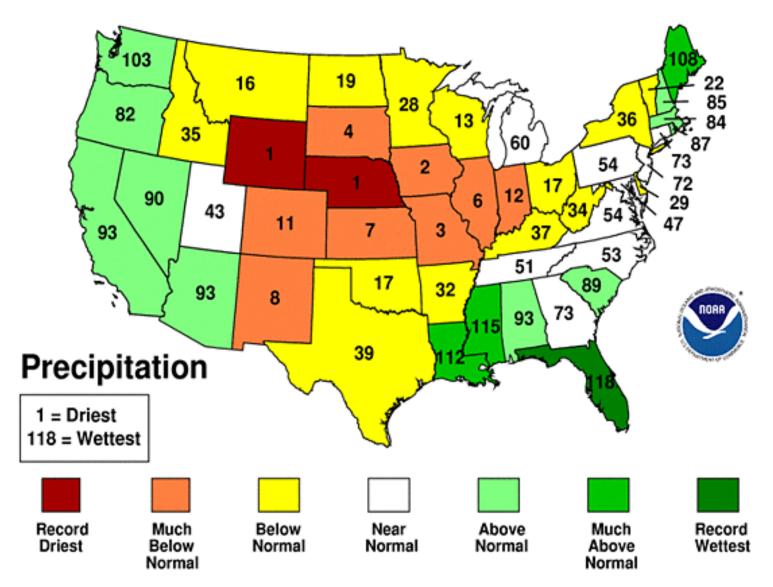
Generated 9/22/2012 at HPRCC using provisional data.

Regional Climate Centers



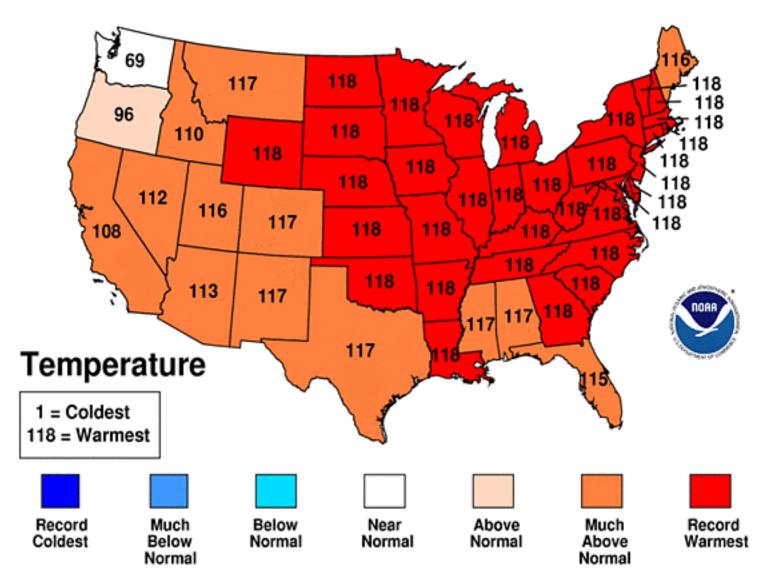
June-August 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



January-August 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA







UNL Drought Team

Rick Rasby Brad Lubben **Roger Wilson Brian Fuchs** David Divine Tapan Pathak Bruce Anderson Suat Irmak Wayne Woldt Jerry Volesky Bob Klein Chuck Burr Don Adams Elizabeth Killinger Brian Strauch Matt Stockton Aaron Nygren Steve Niemeyer Kelly Feehan Allan Vyhnalek Bill Kranz Twig Marston Karla Jenkins Gary Hergert Jim Schild Jessica Johnson Gary Zoubek John Fech

Lindsay Chichester Jenny Rees David Varner Lisa Jasa **Brandon Schulte Rick Koelsch** Linda Boeckner **Aaron Stalker** Alan Moeller Scott Josiah Don Westover Mike Hayes Martha Shulski



Expected Economic Impacts

- Net farm income for 2011 astounding
- Similar "off-the-charts" levels for Iowa and other states in the region
- Value of crop production high thanks to our irrigation resources with record crop prices from a drought-stressed corn belt region
- Income situation for our livestock producers has "turned south" this year
- On track for 2012 net farm income of at least \$5 billion



Why 2013 will be a year of crisis

By David Frum, CNN Contributor updated 11:01 AM EDT, Mon September 3, 2012



Rotting corn was damaged by severe drought on a farm near Bruceville, Indiana.

STORY HIGHLIGHTS

- David Frum: The drought in the U.S., Russia and Australia is driving up food prices
- He says sharp rises in prices have long been tied to unrest among the world's poor
- High prices have been cited as a cause of last year's upheaval in Egypt and Tunisla, he says
- Frum: The winner of November election in U.S. will have to deal with the consequences

Editor's note: David Frum is a contributing editor at Newsweek and The Daily Beast and a CNN contributor. He is the author of seven books, including a new novel, "Patriots."

- (CNN) Prediction: 2013 will be a year of serious global crisis. That crisis is predictable, and in fact has already begun. It will inescapably confront the next president of the United States. Yet this emerging crisis got not a mention at the Republican National Convention in Tampa. We'll see if the Democrats do better.
- The crisis originates in this summer's extreme weather. Almost 80% of the continental United States experienced drought conditions. Russia and Australia experienced drought as well.
- The drought has ruined key crops. The corn harvest is expected to drop to the lowest level since 1995. In just July, prices for corn and wheat jumped about 25% each, prices for soybeans about 17%.



These higher grain prices will flow through to higher food prices. For consumers in developed countries, higher food prices are a burden -- but in almost all cases, a manageable burden.

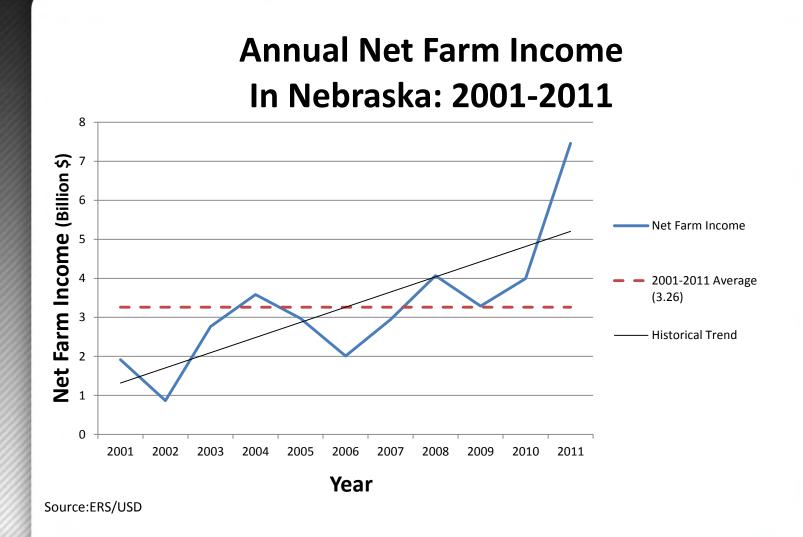
David Frum

Americans spend only about 10% of their after-tax incomes on food of all kinds, including restaurant meals and prepackaged foods. Surveys for Gallup find that the



NE Economy is in an Unprecedented Time

- Value of Ag Production in 2011 of \$23.7 billion with net farm income for NE of \$7.46 billion!
 - Beating the old record in 2008 of \$4.07 Billion by more than 80% and exceeded the 2001-2011 average of \$3.26 Billion by 128%.
- Generational transfer of land in NE projected at \$8.25 billion over the next five years
 - Current asset value of agricultural land = \$110 billion
 - Current annual rates of turnover being about 1.5% per year (\$110 bi. X 1.5% per year X 5 years = \$8.25)







GROWING A HEALTHY FUTURE

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State Funding



UNL is 20% state funded,

one of highest in APLU (IANR is 45%)

- Now in year 2 of biennium UNL budget shortfall of 0.5%
- State has built cash reserve with tax revenues exceeding forecasts – still watching closely
- Next legislative session budget setting for fiscal year 2013-2015



What has Changed?



External funding

Fiscal year 2012: **\$79.1 million 12%** (2011 - \$70.7 million)



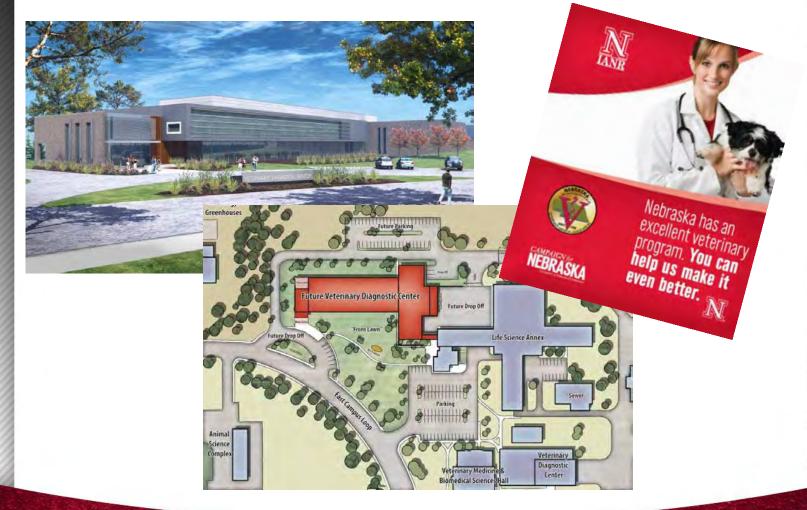


"Building a Healthier Nebraska"

- > \$17 million for a new **College of Nursing** facility in Lincoln
- > \$50 million for a new UNMC cancer research tower
 - To be leveraged with more than \$300 million from private donors, clinical and hospital revenues and other sources
- \$19 million for expansion of the UNMC College of Nursing's Kearney division and addition of a Kearney –based UNMCA allied health professions program.
- \$50 million will be appropriated over 10 years in financial bonds for the Veterinary Diagnostic Center at UNL
 - \$5 million is to come from private or other funds.



Veterinary Diagnostic Center Fund Raising





Veterinary Diagnostic Center Fund Raising

Goal: \$5 million needed by January 2013

- Nebraska Veterinary Medical Association (NVMA) leading effort with NU Foundation
 - Veterinary community
 - Wildlife/recreation community
 - Livestock organization
 - Pharmaceutical industry

IANR matching contributions 1:1







Private Giving to the University is at an All-Time High . . .



> \$1.2 B ~ <mark>\$103 M</mark> **\$250 M+**





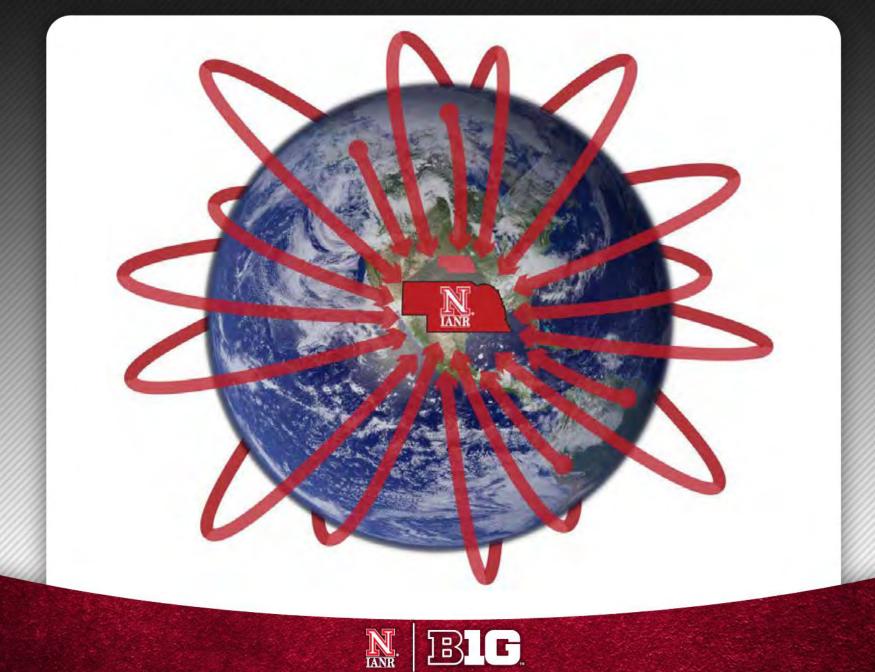
Brian Hastings

CEO

University of Nebraska Foundation

Must leverage new opportunities in entrepreneurial ways!







The Robert B. Daugherty Water for Food Institute



Rural Future Landscape

Center for Food, Fuel & Water Policy



Center for Plant Science Innovation Center for Red Meat Innovation

Food for Health

Gut Function Initiative Nebraska Gateway for Nutrigenomics Redox Biology Center Nebraska Center for Virology









DWFI - Partnerships are Key

- *Partnerships* with other institutions are key
- Public, private and international
 - Education and training programs; faculty/staff exchange
 - Cooperative research programs
- Current WFI-University of Nebraska partnership activities
 - UNESCO-IHE in Delft, The Netherlands
 - Consortium with Harvard and MIT
 - Major USAID Agreement February 2012
 - Major UN-FAO Agreement July 2012
 - USAID Middle East and North Africa Water Centers Network
 - MS Swaminathan Research Foundation in India: conference with Indian government officials on Managing Water Resources for Food Security and Sustainability and developing collaboration with Jain Irrigation
 - China Agricultural University, Northwest A&F, Yield Gap Analysis
 - Brazil Univ. Sao Paulo-ESALQ
 - Africa Ethiopia, Zambia, Ghana
 - Global Harvest Initiative Margaret Ziegler



Daugherty Water for Food Leadership Team







Roberto Lenton Director

Monica Norby Associate Director Suat Irmak Nebraska Water Center Interim Director

Director of Research

Director of Policy



















Nebraska Rural Futures Institute

Officially launched: September 27, 2012





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Global Engagement



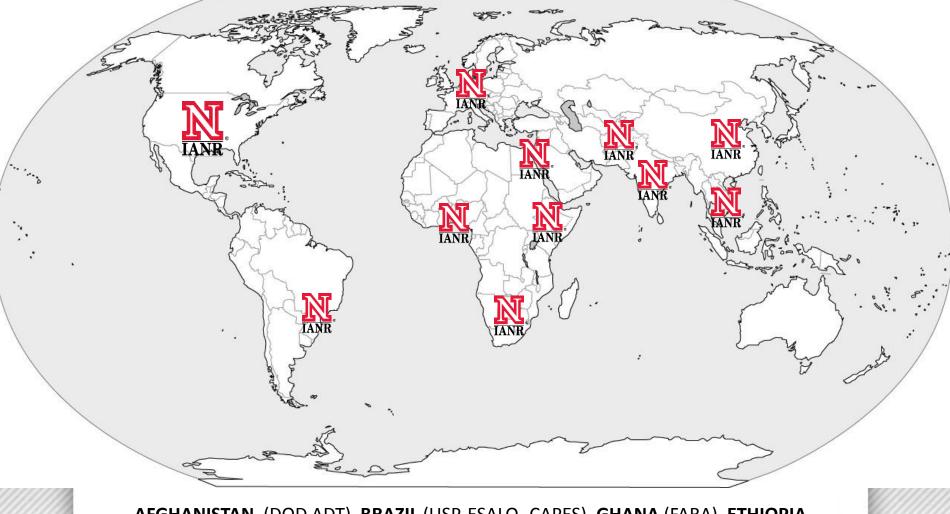
Mark Doyle Director of Global Engagement

Liana Calegare Brazil Outreach









AFGHANISTAN (DOD ADT), BRAZIL (USP-ESALQ, CAPES), GHANA (FARA), ETHIOPIA, USAID (MENA), ZAMBIA (IDE), UNESCO-IHE, CHINA (SAG, China Ag, Northwest A&F), INDIA (JAIN, Obama-Singh, MSSRF), VIETNAM (MARD)



Opening of a State Association of Grain Office in Beijing, China June 11, 2012









1,615

people passionate about making a difference

- 1,230 IANR employees work on campus
- **385** IANR employees are located in Nebraska communities statewide
- 600 total faculty







Chuck Hibberd Dean and Director UNL Extension October 1, 2012 Mark Riley Department Head Biological Systems Engineering





Roch Gaussoin

Department Head Agronomy & Horticulture



Tala Awada Interim Director School of Natural Resources



New Faculty (26)

Guillermo Baigorria	School of Natural Resources
Humerto Blanco Canqui	Agronomy & Horticulture
Mary Brown	School of Natural Resources
Joel Cramer	Nutrition & Health Science
Linda Dannehl	West Central R&E Center
Melissa Evans	Panhandle R&E Center
Jennifer Gerdes	4-H Youth Development
Cynthia Gill	Panhandle R&E Center
Derek Heeren	Biological Systems Engineering
Amitkumar Jhala	Agronomy & Horticulture
Jessica Johnson	Panhandle R&E Center
Kevin Korus	Plant Pathology
John Loy	Vet Diagnostic Center
Joe Luck	Biological Systems Engineering
James Macdonald	Animal Science
Jennifer Melander	Biological Systems Engineering
Kimberly Pickering	4-H Youth Development
Amanda Ramer Tait	Food Science & Technology
Amy Schmidt	Biological Systems Engineering
Jessica Shoemaker	College of Law
Tammy Stuhr	Southeast R&E Center
Qiaozhu Su	Nutrition & Health Sciences
John Thomas	Panhandle R&E Center
Monte Vandeveer	Southeast R&E Center
Tabitha Welch	Northeast R&E Center
Haishun Yang	Agronomy & Horticulture
	A CARLEND AND A CONTRACT OF A CARLEND AND A CA







Positions Being Recruited

School of Natural Resources Director
Statistics Chair (+2)
Nebraska Water Center Director
DWFI Research Director
DWFI Policy Director



Tenure-Track Faculty Positions Being Recruited Current Academic Year

- CASNR Forensic Scientist
- AGEC Cluster Hire -- Livestock Economist (Asst)
- AGEC Cluster Hire -- Ag Firm & Commodity Risk Management (Asst/Assoc)
- > AGEC Cluster Hire -- Grain, Oilseed & Biofuels Economist (Asst)
- ALEC -- Strategic Communication (Assoc)
- CYAF -- Early Childhood Education Specialist(s)* (Asst)
- NHS -- Molecular Geneticist (Asst)
- SVMBS-ANSC Director, GPVEC (Assoc/Full)
- WFI Cluster Hire -- Systems Agronomist (Full)
- WFI Cluster Hire -- Irrigation Engineer (Asst) offer extended
- WFI Cluster Hire Hydrogeophysicist (Full) interviews scheduled
- WFI Cluster Hire -- Water Modeler-GS Hydrologist (Asst/ Assoc/Full)

TOTAL – 19 FTE





University Expectations

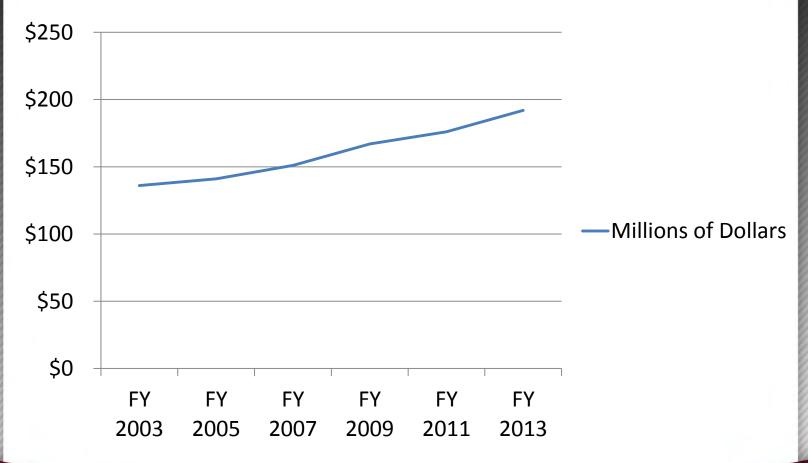
<u>By 2017</u>

- 30,000 students (up from 24,207)
- Additional 166 TTF (total of 1,300)
- Graduation Rate (6-yr) to 70% (from 64%)
- Research Expenditures \$300 million (from \$235 M)
- Innovation Campus Phase 1 complete





Budget Change Over 10 Years







Expectations (by 2017)

Total Enrollment **4,200 (up 37%)** (12.4% of UNL) (base 3,056)

Undergraduate

3,200 (up 33%)

(base 2,402)

Graduate/PPVM, DPH **1,000 (up 53%)** (base 654)



UNL Total Enrollment Fall Semester

CASNR Total Enrollment Fall Semester

Fall	UNL Total	Under- grad	Prof	Grad	Fall	CASNR Total	Under- grad	Prof	Grad
2003	22559	17851	489	4219	2003	1910	1503	0	407
2004	21792	17167	193	4162	2004	1880	1466	0	414
2005	21675	17037	488	4150	2005	1990	1553	0	437
2006	22106	17371	478	4257	2006	2061	1606	0	455
2007	22973	18053	502	4418	2007	2331	1794	25	512
2008	23573	18526	547	4500	2008	2569	2015	50	504
2009	24100	18955	554	4591	2009	2775	2166	50	559
2010	24610	19383	607	4620	2010	2990	2321	55	614
2011	24593	19345	569	4679	2011	3056	2402	59	595
2012	24207	19103	545	4559	2012	3142	2486	58	598



Degree Program	2012	2017	%
Agribusiness	199	241	83
Agricultural Economics	97	115	84
Agricultural Education	59	87	68
Agricultural Journalism	21	30	70
Agronomy	170	183	93
Animal Science	299	450	66
Applied Science	29	65	45
Biochemistry	94	115	82
Environmental			
Restoration Science	8	13	62
Environmental Studies	71	99	72
Fisheries and Wildlife	208	265	78
Food Science and			
Technology	71	85	84
Food Technology for			
Companion Animals	5	10	50
Forensic Science	109	153	71
Grassland Ecology and			
Management	6	8	75
Grazing Livestock Systems	18	27	67

Degree Program	2012	2017	%
Horticulture	87	117	74
Hospitality, Restaurant &			
Tourism Mgmt.	10	115	9
Insect Science	12	23	52
Mechanized Systems			
Management	87	91	96
Microbiology	2	50	4
Natural Resources &			
Environmental Econ.	15	18	83
Plant Biology	16	14	114
PGA Golf Management	120	200	60
Turfgrass & Landscape			
Management	52	62	84
Veterinary Science	67	87	77
Veterinary Technology	8	3	267
Water Science	13	12	108
Pre-forestry	2	2	100
Pre-Veterinary Medicine	40	65	62
Integrated Science	13	22	59
Certificate	1	N/A	
Total	2009	2827	71



IANR Expectations (by 2017)

Total Enrollment	4,200 (up 37%)	2012	% of goal
(12.4% of UNL)	(base 3,056)	3,142	75%
Undergraduate	3,200 (up 33%) (base 2,402)	2,486	78%
Graduate/PPVM, DPH	1,000 (up 53%) (base 654)	656	66%





Weldon Sleight







2012 NAE4-HA MEMBER RECOGNITION SPECIALITY AWARD -Interactive 4-H Educational Web Site Award (Team)

Shane Potter, Jeff Abele, Kim Bearnes, Tracy Behnken Heather Borck, Brian Bosshamer, Kathleen Lodl, Tracy Pracheil, Dustin Renken, Barbara Scharf, Lila Tooker, Dave Varner, & Amy Topp



Education in the Palm of Your Hand

Aphid Speed Scout Growlt-Knowlt myUNLextension **Snack Planet** Nebraska Extension 4-H at State Fair Crop Water Western Bean Cutworm Speed Scout **Backyard Farmer** Market Journal 4-Day Throw Away ianrhome.unl.edu/web/ianr/mobileapps



IANR Expectations (by 2017)

Research Expenditures

- Goal for 2017: At least \$96.1 million of UNL's \$300 million
 - IANR needs a 7.8% (compounded) annual growth rate
 - Since 1989/90 -- 4.7% annual compounded growth rate
 - Since 2000/01 -- 3.6% annual compounded growth rate
 - Since 2005/06 it has been closer to 2.3%



IANR Expectations (by 2017)

Research Expenditures

- IANR's Research Expenditures represent ~39% of UNL's Total
 - UNL Total- \$235.3 M (FY2011)
 - IANR Total- \$91.7 M



Major Grant Success!!!!

\$7,045,455 – Lodl, Durden – Child Care & Youth Training and Tech. Assist. (USDA) \$2,490,776 – Josiah – Cooperative Forestry Program (FS) \$2,400,00 – Yohe – Sorghum/Millet Collab Research Program (Agency for Intl Dev) \$1,861,243 – Koszewski – SNAP-ED Program (NE Dept Health & Human Services) \$1,200,00 – Cotton – National E-Extension Project (APLU) \$1,168,912 – Lubben – North Central Risk Management Ed Center (NIFA) \$1,000,000 – Walter – Dynamics of Host-Associated Microbial Communities (NIH) \$866,148 – Shulski – Regional Climate Services Support in the High Plains Region (NOAA) \$766,166 – Giannakas – Center Ag & Food Industrial Org-PRG (NIFA) \$749,941 – Fernando – Methane Mitigation in Beef Cattle (AFRI) \$646,993 – Allen – IGERT: Stressed Watersheds (NSF) \$624,138 – Shulski – Regional Climate Services Support in the High Plains Region (NOAA) \$601,017 – Heng-Moss – Mitigate Insect Herbivory-Grasses (ARS) \$598,00 – Powell – Wind and Prairie Grouse in Nebraska (NE Game & Parks) \$594,431 – Cady – NE Technology Transfer Ctr UNL 2013 (NE Dept of Roads) \$594,00 – Oyler – Consortium for Algae Biofuels (Univ of CA – San Diego) \$528,561 – Powers – Integrative Taxonomy Criconematidae (NSF)



Growth in People and Positions

Prioritizing faculty hires – "core" of IANR to 2025

- Proposed planning process shared at IANR All Hands Meeting February 10
- Process finalized and planning initiated February 21
- Draft of unit priority plans submitted March 30
- Review and discussion of unit plans among individual unit administrators and deans – May 17
- Unit plan revisions completed June 1
- Unit plans shared and discussions about team formation ongoing between June 1 and July retreat
- Retreat in Nebraska City July 24-25
- Five areas identified for working groups
- Working groups submitted prioritized lists September 14
- Deans council developed Phase I priority list September 26



Phase I – Tenure-Track Faculty Lines "Animal and Plant Stress Biology"

Plant-Arthropod Interaction Scientist

- Plant Molecular Physiologist
- Plant Biotic Stress Biologist
- Animal Stress Physiologist
- > Animal Functional Genomics



- Advanced Sensing Systems in Agriculture Engineer/Scientist
- Phase 2 3 positions



Phase I – Tenure-Track Faculty Lines

"Healthy Systems for Agricultural Production and Natural Resources"

Healthy Beef Systems

- > Applied Animal Genomics
- Quantitative Geneticist
- Beef Systems Specialist
- Biosystems Economist
- Forage/Crop Residue Systems Scientist





Phase I – Tenure-Track Faculty Lines

Healthy Systems for Agricultural Production and Natural Resources (7 Phase 2)

- > Agroecosystems (with tie to Stress Biology)
 - Agroecosystems Ecologist
 - Quantitative Ecologist
 - Micrometeorologist
- High Plains Agricultural Systems



- Dry-land Cropping Systems Agronomist
- Water Resources Management Engineer
- Range/Forage Management Ecologist



Phase I – Tenure-Track Faculty Lines "Healthy Humans"

 Behavioral Based Epidemiology
Behavioral Economics and Health Disparities
Childhood Health Behaviors
Food Safety Risk Assessment
Lipid Chemistry & Functionality
Lipid Metabolism & Health
Phase 2 – 5 positions





Phase I – Tenure-Track Faculty Lines

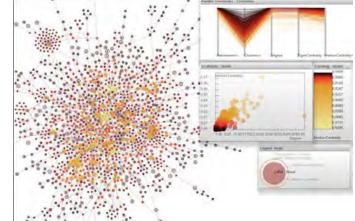
"Large Data Sets"

Three positions, each with emphasis at both methodological and field-specific levels

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➢Organismal

System

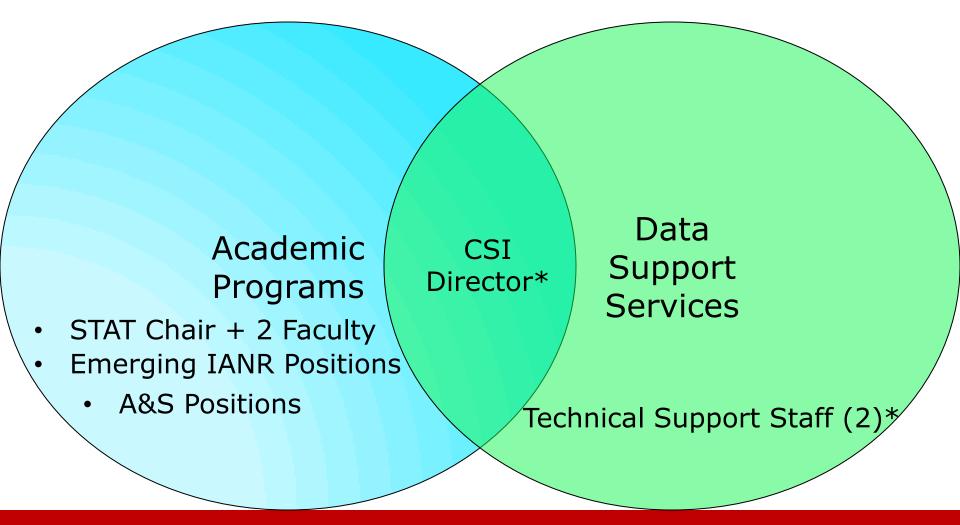


Phase 2 -- 3 positions



Computational Sciences Initiative (CSI)

Temporary Director: Brian Larkins Advisory Committee : George Avalos, Andy Benson, Heriberto Cerutti, Steve Kachman, Etsuko Moriama, Steve Scott



*Positions being drafted for release

Phase I – Tenure-Track Faculty Lines "Agricultural Science Literacy"

Life Sciences Educator

Science Literacy Educator and Program Coordinator

Science Literacy Specialist

➢Phase 2 − 4 positions





Phase I – Tenure-Track Faculty Lines

"Core"

 Community Leadership Development
Behavioral and Experimental Economist
Advanced Machinery Systems Engineer (for Food, Fuel, Water)
Virologist
Rangeland Ecologist
Phase 2 – 7 positions





19 Current Searches 36 Phase I (9.4% Increase) 29 Phase II

Must do this right . . .



Highly Efficient/Effective Searches Start-Ups / Integration Staff Support







Building Community...





Termith





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http://heuermannlectures.unl.edu

THE LAND-GRANT MISSION OF 2012 TRANSFORMING AGRICULTURE FOR THE 2050 WORLD

FRIDAY, SEPT. 28 | 7:30 P.M. | LIED CENTER, 12TH AND R ST.

Speakers: Former U.S. Secretaries of Agriculture Senator Mike Johanns, Clayton Yeutter, John Block and Dan Glickman Reserve your free tolets by calling the Led Center ticket office - 402-472-4747 or tol-time 1400-432321 - beginning Aug. 28.

WHERE AMERICA MUST LEAD:

ENSURING THE WORLD CAN FEED ITS PEOPLE

THURSDAY, NOV. 15 | 3:30 P.M. | HARDIN HALL, 3310 AND HOLDREGE

Speaker: Catherine Bertini

2003 World Food Prize Loureate; Professor of Public Administration and International Relations, Maxwell School of Ottaenahip and Public Affairs, Spracuse University; co-chair, Global Agricultural Development Initiative; The Chicago Council on Global Materia

RECENT AND PROSPECTIVE DEVELOPMENTS IN AGRICULTURAL TRADE POLICIES

FRIDAY, NOV. 30 | 3:30 P.M. | HARDIN HALL, 3340 AND HOLDREGE

Speaker: Kym Anderson

George Gallin Professor of Economics, The University of Adelaide, and Professor of Economics at Australian National University, former researcher of the World Trade Organization and the World Snah with septrise in global food and agricultural galaxies and market trends

This locture is jointly sponsored with the Clayton Yeutter International Trade Center Program lunded by the U.S. Department of Commerce, International Trade Administration.

Nebraska

ANYONE WHO REQUIRES REASONAS CONTACT JUDY HELSON AT AD The University of the

IMPROVING ANIMAL WELFARE AND COMMUNICATION WITH THE PUBLIC

TUESDAY, JAN. 15 | 7:00 P.M. | HARDIN HALL, 33⁸⁰ AND HOLDREGE

Speaker: Temple Grandin Professor of Animal Sciences, Colorodo State University; author of several books including "Dvestack Handling and Transport" and "Thinking in Pictures"

TOMORROW'S TABLE: ORGANIC

FARMING, GENETICS, AND THE FUTURE OF FOOD

TUESDAY, FEB. 12 | 3-30 P.M. | HARDIN HALL, 3340 AND HOLDREGE

Speakers: Pamela Ronald and Raoul Adamchak

Pamela Ronald is a Professor in the Department of Plant Pathology and the Genome Center at the University of California, Davis, and Director of Gross Graetics at the Joint BioChargy Institute, while the Handrack Round Adamtchis is Martet Garden Coordinator at the UC Davis Student form, where he trackes argunic agriculture. They are co-authors of the book "Tomorroe"s Table: Organic Farming, Genetics, and the Future of Food."

THE GLOBAL FOOD SYSTEM AND RELATED POLICY CHALLENGES

TUESDAY, APRIL 9 | 3:30 P.M. | HARDIN HALL, 3340 AND HOLDREGE

Speaker: Per Pinstrup-Andersen

2001 World Food Prize Laureate: H.E. Babcock Professor of Food, Nutrition and Public Policy, J. Thomas Clark Professor of Entrepreneurship, and Professor of Applied Economics, Cornell University

WO WILKS PROR TO THE EVENT











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