GROWING A HEALTHY FUTURE

FOOD • FUEL • WATER • LANDSCAPES • PEOPLE
GROWING A HEALTHY FUTURE
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All Hands Meeting
September 3, 2014
Nebraska East Union
Roadmap for Today’s Conversation

- Reflecting back over the past 4 years
- Anticipating the next 6 years to 2020
- Near-term budget/fiscal outlook
- Phase II Faculty Hiring Plan
Roadmap for Today’s Conversation

- Resource optimization implementation plans
- Leadership transitions
- Celebrating servant leaders / leadership
- Upcoming community events
5th Year / 8th ALL HANDS!
1st Retreat – Nov 2010

“Surveying the Landscape”

- “declining”
- Economic Downturn
- Defensive
- Budget Uncertainty
- Top Down Mentality
- Vulnerable
- Administrative Commitment?
Defensive
Vulnerable
Top Down Mentality
Budget Uncertainty
Economic Downturn
2nd Retreat – July 2011

“IANR to 2025”

– Realization of true opportunity, administrative commitment, “turn of the culture”
– Commitment to 53 planks of **IANR to 2025**
– Opening up of leadership process – IANR LC
Defensive Budget Uncertainty Vulnerable Economic Downturn Top Down Mentality

2010 to 2025

"Turning the Culture!"

IANR to 2025

2010 2011
3rd Retreat – July 2012

“Leading UNL in Growth”

– Conscious choice to grow, mechanics / budget of how to grow strategized

– Launching of Faculty Growth Plan
4th Retreat – July 2013

“Checking the Bases”

– Hiring initiative wrap-up and review
– Checking IANR and UNL/NU budget issues and perspectives
– Integration of new talent into IANR LC
Defensive Budget Uncertainty
Vulnerable Economic Downturn
Top Down Mentality
Economic Downturn

2010
2011
2012
2013
2014

"Turning the Culture!"
IANR to 2025

JOIN OUR TEAM
30+ FACULTY POSITIONS
INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES
UNIVERSITY OF NEBRASKA - LINCOLN

FOOD, FUEL, WATER, LANDSCAPES, PEOPLE
5th Retreat – July 2014

“Inflection Point”

- Continue faculty/staff growth
- Enhance the new faculty success network
- Optimize our state resources
- Utilize the 5% tax and end of year funds effectively
- Grow Innovation Campus
- AND MUCH MORE
Point of Inflection!

The next 6 years are going to dwarf the last 4 . . .
To be the leading public university in the world in “feeding the future” ... through advancing food, energy, natural resource and rural landscape security.
Goals

- Increase Enrollment to 30,000
- Increase Faculty by ~170
- Increase 6-year graduation rate to 70%
- Increase research expenditures to $300 M
- Increase national/international recognition of faculty
- Successfully launch Phase I of Nebraska Innovation Campus
1) 10\textsuperscript{th} consecutive year of enrollment growth in Ag & Nat Res (\textit{anticipate 6-8\% increase}) (NCTA up 53\% in 1\textsuperscript{st} year class).

1) FY 2014 exceeded record in 2012 in research expenditures ($80M).

2) 6-year graduation rate of \textit{\~78\%}

3) Increasing tenure-track faculty by \~13\% (46 FTE) with additional 34 planned in Phase II.

4) Leading the population and development of Phase I of Nebraska Innovation Campus
Post-Inflection Point Goals

**ENROLLMENT** → 4,200

*Fall 2014 – UG ~2,750  
GRAD ~750*

+700 (20%)
Post-Inflection Point Goals

RESEARCH EXPENDITURES $120M

FY 2014 – $80M

+$40M (50%)
Janos Zempleni, the director of the new center, discusses his research at an Aug. 25 grant announcement at the Van Brunt Visitors Center.
Post-Inflection Point Goals

6-YEAR GRADUATION RATE → 82%

FY 2014 – ~78%

+4% (5%)
Post-Inflection Point Goals

FACULTY HIRING ➞ +65 Tenure Track Faculty

Through FY 2014
+46 FTE TTF

+19 (~5%)
Post-Inflection Point Goals

NEBRASKA INNOVATION CAMPUS

350,000 sq. feet

+80K sq. feet
Innovation Campus
Phase 1 Building – 350,000 sq. feet

UNL Dept. of Food Science and Technology!
NEBRASKA ALLIANCE FOR ADVANCED FOOD SANITATION

Opportunities
MORE EFFECTIVE AND EFFICIENT SANITATION APPROACHES
- Develop environmentally friendly methods, reduce time and cost, improve food safety and food security.

COOPERATIVE TECHNOLOGY DEVELOPMENT
- Extend internal resources of members, explore new technologies and get first look at new discoveries.

EDUCATION:
- Dissemination of science critical to industry partners and regulators.

CONSULTING:
- Problem solving and utilization of emerging technologies.

INNOVATION AND ADVANCEMENT IN PRODUCTION SANITATION
A unique opportunity exists for the creation of the Nebraska Alliance for Advanced Food Sanitation. The University of Nebraska, Lincoln and industry partners in the alliance will conceptualize, create, and disseminate improved sanitation approaches and practices. More efficient and effective sanitation will result in a reduction in the quantities of chemicals used in sanitation, savings in time and operational costs resulting in more affordable foods at the consumer level, and consistently safer food products.

The timing for this initiative is opportune to support the mandates for validated preventive controls for food safety hazards that will be promulgated by the U.S. Food and Drug Administration’s Food Safety Modernization Act (2011). Alliance activities are envisioned to focus on all manner of food safety concerns including microbial pathogens, allergens, and toxic chemicals; food quality and shelf life; cost and risk benefit assessments; water conservative and reusability; and genetically engineered foods.

General Information:
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Department of Food Science and Technology:
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The University of Nebraska-Lincoln is an equal opportunity educator and employer.
Follow the action through the web cam
www.truelook.com/clients/tetrad-webcam/
Post-Inflection Point Goals

IANR OPERATING BUDGET → $300M

FY 2015 -- ~$220M (EST)

+$80M (36%)
Total factor productivity index projections

- Historical actual
- Scenario 1: R&D constant, nominal $ (dotted line)
- Historical trend (solid blue line)
- Scenario 3: R&D increases 1% per year, real $(solid red line)
- Scenario 1*: R&D constant, nominal $, with one-time cut of 25% in 2014 (green dotted line)

Base year: 2008 = 100

Source: Economic Research Service.
- Increase AFRI from $265 to $500 M
- Increase NSF basic funding for food and ag from $120 to $250 M
- $180 M in USDA fellowship funding for graduate students and postdocs
- Create six innovation clusters at $150 M per year focused on emerging challenges in ag and food
- Create a permanent scientific advisory committee to advise the USDA Chief Scientist
IANR = 38,950 acres
NU = 43,734 acres
East Campus Master Plan

... The map to follow for any project
Biofibers Research Lab

Opened in Fall 2013
Havelock Farm – Popcorn Research

Completion – 2014
Holdrege Street – 35 East

Open Fall 2014
WCREC – New Entomology Bldg

Expected Completion – Fall 2014
WCREC – Snyder Addition

Completed March 2014
PHREC Elliott Building Upgrade
Animal Handling Facility
Panhandle REC
High Plains Ag Lab
New Headquarters Building at Sidney

Dedicated June 2014
Commodity Trading Room
Dept. of Ag. Economics, Filley Hall 57

Opened in Fall 2014
“Legacy” Plaza
South “Gates” to East Campus
Nov 2014
Stumpf International Wheat Center

Dedication Dec 2014
East Campus Recreation Center

Open Late
Summer 2015
Veterinary Diagnostic Center

Opening in 2017
Follow the action through the web cam

www.truelook.com/clients/tetrad-webcam/
Burr/Fedde Residence Halls

Board of Regent (BOR) Vote – Nov 2014
Biochemistry Hall

Potential space for new housing
C.Y. Thompson
Student Learning Commons
BOR Vote – Sept 2014
Consortium for Integrated Translational Biology
Creating a transdisciplinary environment to bridge the genotype to phenotype gap

Plant Genetic Variation

Capturing Phenotype

Lab to Field Infrastructure
SNR / Hardin Hall
Outdoor Nature Classroom
Statewide Resource Optimization Task Force – Implementation Steps
IANR Statewide Resource Optimization Task Force

Objective:

To comprehensively evaluate the land, facility, and personnel resources of the IANR teaching, research, and extension missions across the state-wide campus of Nebraska, and, to determine if opportunities exist for more effective use and management of those resources to meet long-term needs for growing a healthy future through research and education in the areas of food, fuel, water, landscapes, and people.
IANR Statewide Resource Optimization Task Force

- Don Adams
- Stephen Baenziger
- Larry Berger
- Linda Boeckner
- Homer Buell
- Chuck Burr
- Dan Duncan
- Galen Erickson
- Richard Ferguson
- Eugene Glock
- Tiffany Heng-Moss

- Lisa Kaslon
- Mark Kuzila
- Keith Olsen
- Mark Schroeder
- Kim Todd

Ex-Officio:
- Marjorie Kostelnik
- Ron Rosati
- Steve Waller

Task Force Coordinator:
- David Jackson

Co-Chairs: Archie Clutter and Chuck Hibberd
“Renewed” 21st Century Eastern Nebraska Research Capacity
Statewide Resource Optimization—Implementation Steps Timeline

- Oct 1 – Implementation Plan for IANR Media and Technology Platform (1/15)
- Sept-Dec – Modeling of recommended changes in state-wide R/E infrastructure
- Jan-May 15 – Public vetting of any changes in state-wide R/E infrastructure
- July 15 – Implementation Stage for Optimization Begins
Private Giving to the University is at an All-Time High . . .

> $1.8 B

~ $140 M

$250 M

“25 by 2025”

Endowed Chair Campaign
“25 by 2025”
Endowed Chair Campaign

Nebraska Wheat Growers Presidential
Nebraska Soybean Board Presidential
Engler Agribusiness Entrepreneurship
Robert B. Daugherty Water for Food
Heuermann Agronomy
“25 by 2025”
Nebraska Corn Board
Presidential Chair
“25 by 2025”
Allen Food for Health Presidential Chair
“25 by 2025”
Ron Hanson Chair in Agricultural Banking
“25 by 2025”
Endowed Chair Campaign

Currently – 8 funded Chairs
Active Fund Raising for CY 2014 – 4
Plan for 2015 – 3
Paying Attention
to the World
Funding Growth

- IANR keeps its enrollment growth funding
- Modest increases over past 4 years in state funding
- Increased availability of NUF funding
- Some increases from PoE funds

- Increase in FY 2015 is approx. $4.0M
- Expectation for FY 2016 = $2 to 2.5M increase beyond salaries
Funding Growth

- Increase in FY 2015 is approx. $4.0M
  - NIC Lease Commitment: ($2.7M)
  - NIC Business Center: ($0.2M)
  - NIC Staffing: ($0.3M)
  - Competitive GTA/GRAs: ($0.5M)
  - Replenishing Benefits Pool: ($0.3M)
Central admissions and recruitment coordination
10-12 new students per year

Life Sciences PhD Program

Core curriculum: Life sciences research questions; integrated team-oriented solutions; statistics and experimental design; presentation and literature critique

Teaching in LIFE 120/121
Research rotations for two semesters

Select mandatory specialization for program of study
Choose research mentor(s) and supervisory committee

Pathobiology and Biomedical Science
Host-microbiome interactions
“Your new area(s)”
Systems and quantitative biology
Integrated Plant Biology

Annual progress evaluation
Weekly graduate seminar for all program cohorts
Annual research symposium
Admissions and placement data maintenance
Funding Growth

- Additional New Revenue
  - Expected 5% OH Assessment ($0.8M)
  - F/A from NIC ($0.5M)

**ALL EARMARKED FOR INFRASTRUCTURE**
State Funding

- FY 16/17 Biennium NU Budget Request
  - Nebraska Innovation Campus
    - $3.8M permanent funding
    - $25M one-time capital fund
  - Rural Futures Institute
    - ~$2.5M to add to $500K in 2014
  - Nebraska College of Technical Ag (NCTA)
    - ~$1M permanent budget increase
Point of Inflection!

The next 6 years are going to dwarf the last 4 . . .
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Living in 2014, Thinking in 2050!
Faculty Growth Plan

Now for PHASE II!

FOOD, FUEL, WATER, LANDSCAPES, PEOPLE

JOIN OUR TEAM

30+ FACULTY POSITIONS

INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES
UNIVERSITY OF NEBRASKA—LINCOLN
Faculty Growth Plan

Phase I – Original Plan for 36 new TTF

*Result: Hired Total of 34 with 4 currently under search and 1 carry-over*

Phase II – Original Plan for additional 20 hires in 2014-15
Faculty Growth Plan

Phase II – Prioritization Process since Feb 2014

Result: Announcing a total of 34 positions to be recruited in 2014-15
Faculty Growth Plan

Since 2012:
Total of 62 Faculty Hires
Remaining Phase I = 5
New Phase II = 34
GRAND TOTAL by 2016 = 101
Stress Biology (8)

- Arthropod Host-Virus Interactions
- Metabolic Flux Analysis
- Soybean Genomics*
- Cropping Systems Specialist*
- Invasive Weed Specialist*
- Microbiologist in Plant/Soil Systems*
- Soil Chemist*
- Pollinator Health
Healthy Humans (7)

- Cancer / Metabolic Disease
- Pharmacology/Nutrient Biotransformation
- Neurovirologist
- Quantitative Genomics
- Food Physical Chemist
- Poverty / Social Determinants of Health
- Health Policy
Computational Sciences
(4 + 1 carry-over)

- Ag Information Systems
- Bayes Spatio-Temporal Analysis
- Multi-scale Data Mining and Remote Sensing
- Statistical Prediction – Genetics
- Agro-Ecosystems Spatial Economist*
Healthy Systems for Agricultural Production and Natural Resources (7)

- Virologist – Bovine Respiratory Disease (BRD)
- Veterinary Epidemiologist -- BRD
- Extension Veterinarian
- Climate Risk and Adaptation
- Water Quality Engineer/Scientist
- Swine Extension Specialist
- Sustainable Horticulture/ Landscape Mgt
Drivers of Economic Vitality (7)

- Agribusiness Management
- Bioprocess Engineer
- Agricultural Cooperatives**
- Community Leadership Development
- Entrepreneurship, Business, and Economic Development
- Regional Economist
- Community Planning
Science Literacy (1)

- Teaching and Learning Specialist (4-H)
12 Pending Additional Funding (FY 16)

- Wildlife and Ag Interaction
- Food Process Engineer / Scientist
- Gut-Brain Biologist
- Neurosensory Scientist
- Stem Cell Biologist / Epigeneticist
- Bacteriologist (BRD)
- Immunologist (BRD)
- Cropping Systems Specialist (Irrigated)
- Nat Res Systems Economist (Water)
- Root Stress Physiologist
- Food Systems Specialist (Science Literacy)
- Animal Systems Specialist (Science Literacy)
Conducting Searches

GOAL: Complete by end of 2015

We will provide support for the various phases of the hiring process

- Initiating the search
  - Position description
  - Advertising; recruiting; getting the best pool
- Creating the short list
  - Evaluating the pool; checking references; selecting the best applicants
- Hiring the best candidate
  - Conducting interviews; rating candidates; offers/negotiating/hiring
Leadership Transitions

School of Veterinary Medicine and Biomedical Sciences

Don Beermann        Don Reynolds
Leadership Transitions

Hector Santiago
Agricultural Research Division
Assistant Dean and Director
Leadership Transitions
Panhandle R&E Director

Gary Hergert
Jack Whittier
Jim Schild
Leadership Transitions

Nick Brozovic
Director of Policy
Daugherty Water for Food Institute
Leadership Transitions

Ann Willet
Director of Strategic Alliances
Food, Fuel, and Water
Nebraska Innovation Campus
Leadership Transitions

Daniel Schachtman
Director
Biotechnology Center
Omtvedt Innovation Award
Teaching

David Gosselin
Omtvedt Innovation Award
Research
Sally Mackenzie
Omtvedt Innovation Award Extension

Rick Funston
Omtvedt Innovation Award
Team Award

Broadband Planning Team
Connie Hancock (co-PI), Charlotte Narjes (co-PI), Roger Terry (co-PI) Becky Vogt, Janice Jackson Cejka
Upcoming Events
C.Y. Thompson Library Open House

September 16th
11 am to 3 pm

Learn quick tips about library services that make your research and instruction more efficient, enjoy some refreshments, and register for prizes.
“Legacy” Plaza

Dedication Ceremony
September 20, 2014
3 PM
Understanding and Assessing Climate Change: Implications for Nebraska

Speaker and Moderator DONALD WILHITE, Emeritus Director and Professor, National Drought Mitigation Center

With panelists ROBERT OGLESBY, DEBORAH BATHKE, and CLINTON ROWE, University of Nebraska–Lincoln Professors

SEPTEMBER 25, 2014 | 3:30 P.M.
NEBRASKA INNOVATION CAMPUS CONFERENCE CENTER, 2021 TRANSFORMATION DRIVE, LINCOLN, NE
What does Agricultural Communication Mean in the 21st Century?

Moderator ORION SAMUELSON, WGN – Chicago
With panelists BARB GLENN, National Association of State Directors of Agriculture;
KEVIN MURPHY, Food Chain Communications;
MARCY TESSMAN, Charleston–Orwig;
RONNIE D. GREEN, University of Nebraska–Lincoln

NOVEMBER 6, 2014 | 3:30 P.M.
NEBRASKA INNOVATION CAMPUS CONFERENCE CENTER,
2021 TRANSFORMATION DRIVE, LINCOLN, NE
HEUERMANN LECTURES

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

Speaker: ALISON VAN EENENNAAM, University of California–Davis, 2014 Borlaug CAST Communication Awardee

JANUARY 13, 2015 | 7:00 P.M.
NEBRASKA INNOVATION CAMPUS CONFERENCE CENTER,
2021 TRANSFORMATION DRIVE, LINCOLN, NE
Climate Change in the American Mind

Speaker: ANTHONY LEISEROWITZ, Yale School of Forestry & Environmental Studies

MARCH 10, 2015 | 3:30 P.M.
HARDIN HALL, 33RD AND HOLDREGE, LINCOLN, NE
CASNR Tailgate & Brick Dedication

September 27th

3 PM – Brick Dedication
4 PM – CASNR Tailgate

Nebraska East Union

Both events are free and open to all students, faculty, staff and alumni.
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