



GROWING A HEALTHY FUTURE

FOOD • FUEL • WATER • LANDSCAPES • PEOPLE

Agricultural Research Division

Nebraska Agricultural Experiment Station

ARD/IANR Research Faculty Meeting

August 11th 2014

ARD Staff

Debra Lawrence



Office Associate

Joined ARD in 2008

- General Office Support: Reception and Assistance
- Event Planning and Special Projects
- Scheduling for ARD Leadership Team
- Travel Management for all ARD Staff
- Administrative Support for ARD Leadership Team

Jared Evert



Data Management Specialist

Joined ARD in 2014

- Strategically Manage Programmatic Data and Reporting for External Research Funding
 - Commodity Boards
 - USDA Capacity & Multi-State Funds
 - USDA REEPORT
 - USDA Plan of Work
 - Biotechnology Quality Management System Support
 - Activity Insight Support
- Strategically Manage Budgets for ARD Service Centers

Barbara Gnirk



Project and Office Management Specialist

Starting August 22, 2014

- Management support for the ARD Dean
- Supervisory Oversight of ARD Office Functions and Staff:
 - Grants/Contracts/Awards
 - Budgeting and Financial Management
 - Data/Electronic File Management
 - Purchasing
 - Scheduling
- Responsible for Professional Development of ARD Office Staff
- Apply Project Management Methods to Internal ARD Projects
- Develop IANR Resources and Support for Faculty Project Management

Hector Santiago



Assistant Dean and Assistant Director

Joined ARD August 1, 2014

- Support farm/livestock management and business and facility operation at ARDC, Research and Extension Centers and Ag Labs/Ranches
- Represent IANR/ARD on Commodity Boards
- Administrative coordinator for field releases of regulated plant materials, APHIS BQMS Quality Manager
- Assist the Dean and Director, in conjunction with other ARD staff, in coordinating and facilitating IANR's broad research mission

David Jackson



Associate Dean and Associate Director

Joined ARD in 2008

- Coordinate IANR associated Academic Program Reviews
- Approve IANR Grants, Administer Conflict and Outside Activity Reporting
- Administer Hatch and Multi-State research portfolio and associated funds; other ARD funds
 - Competitive internal grants for non-salary capacity/formula funds
 - Foundation funded internal grants
 - Special internal programs to support travel and miscellaneous projects
- Assist in the administration of research programs at the South Central Agricultural Lab, UNL Greenhouses, and IANR Regulated Field Facilities
- Prepare ARD Annual Report and Plan of Work
- Assist the Dean and Director, in conjunction with other ARD staff, in coordinating and facilitating IANR's broad research mission

Deb Hamernik



Associate Dean and Associate Director

Joined ARD in 2009

- Facilitate faculty interactions and networking with federal funding agencies
- Link IANR faculty with UNL resources to enhance competitiveness for external funding and increase scientific impacts
- Build interdisciplinary research teams to seek sponsored research funding
- Administer internal competitive research grant programs
- Assist the Dean and Director, in conjunction with other ARD staff, in coordinating and facilitating IANR's broad research mission

Archie Clutter



Dean and Director

Joined ARD in 2011

- Optimize life science, agricultural and natural resources, research capabilities of 40,000+ acres, 250+ research faculty, 4 research centers across the state and an annual budget of \$80 million in grants and contracts
- Interact with other administrative leaders on campus and across the country, as well as stakeholders, including commodity organizations, to help shape IANR's life and social science research agenda
- Leverage the unique abilities within ARD for transdisciplinary, integrated research across basic, translational and applied sciences towards the demands of a quickly growing global population
- Core Value Goals for the ARD Culture:
 - Transparency
 - Accountability
 - Collaboration
 - Excellence
 - Value of Feedback
 - Respect
 - Inclusiveness

AGENDA

- 8:30 Continental Breakfast and Introductions
- 9:00 ARD/IANR Impact-Driven Strategic Planning and Investments
 - Summary of new IANR Faculty New Hire Success Network
 - Phase II and beyond
 - Leveraging process for team building
 - Historical and Current Internal Funding Opportunities
 - Alignment of Resources
- 10:30 Break
- 10:45 Professional Development Discussion
 - Civil Rights
 - Future Opportunities
- 11:00 Interacting with the Media (Professional Development Training)

IANR Strategic Growth Initiative

FOOD, FUEL, WATER, LANDSCAPES, PEOPLE

**JOIN
OUR
TEAM**

30+ FACULTY POSITIONS
(click here)



INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES



Phase I New Hires ARD Appointments



New Faculty Success Network

*Established 2013
[Faculty started since Fall 2011]*

New Faculty Success Network

Creating and Fostering a Dynamic Community

Intended Outcomes:

- Develop awareness of the culture of INAR: expectations of performance and standards of professional citizenship
- Develop networks that engage faculty with similar interests in research, teaching or extension
- Understand the grant development process within IANR/UNL and strategies for pursue external funding
- Develop open communication with IANR administration
- Develop a professional relationship with unit head/chair/director to assist in individual, career, and organizational development within IANR
- Develop a mentoring relationship with a faculty mentor
- Develop strategies for work/life balance

New Faculty Success Network

Creating and Fostering a Dynamic Community

2013-14 Luncheon-Format Topics:

- Get-to-know Vice Chancellor, Associate Vice Chancellor, Deans
- Scholarship conversation with Deans
- Annual reporting and the annual evaluation process
- Mentoring (how to engage, what to expect)
- The integrated mission of IANR – research, teaching, extension
- The tenure and promotion process
- IANR business support services
- Washington DC trip to engage granting agency personnel

What information/discussions should ARD be providing to our broader Faculty Community?

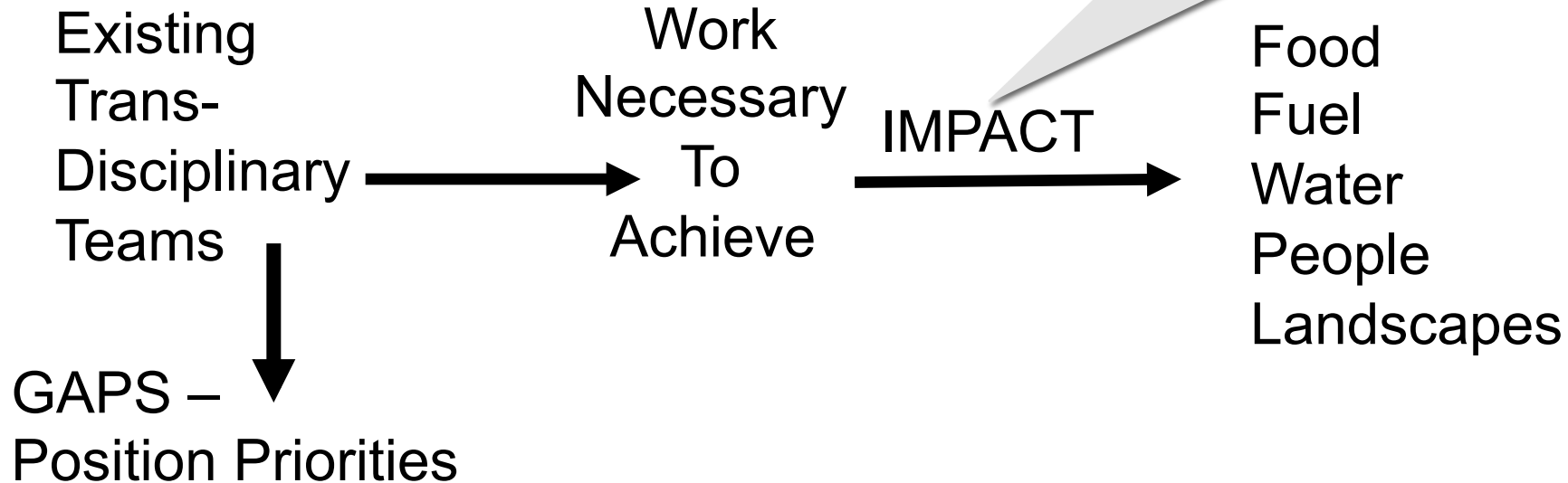
Which "brown-bag" research presentations would you make an effort to attend?

<http://go.unl.edu/ard2>

IANR Strategic Growth Initiative

Phase II and Beyond

A Review of Phase I:



Provide a Standard
Template for
Building Plans

Encourage/Facilitate
Inter-Unit
Development of Plans

Title and description (no more than 1500 characters):

Impact on IANR or UNL priority goals (no more than 500 characters):

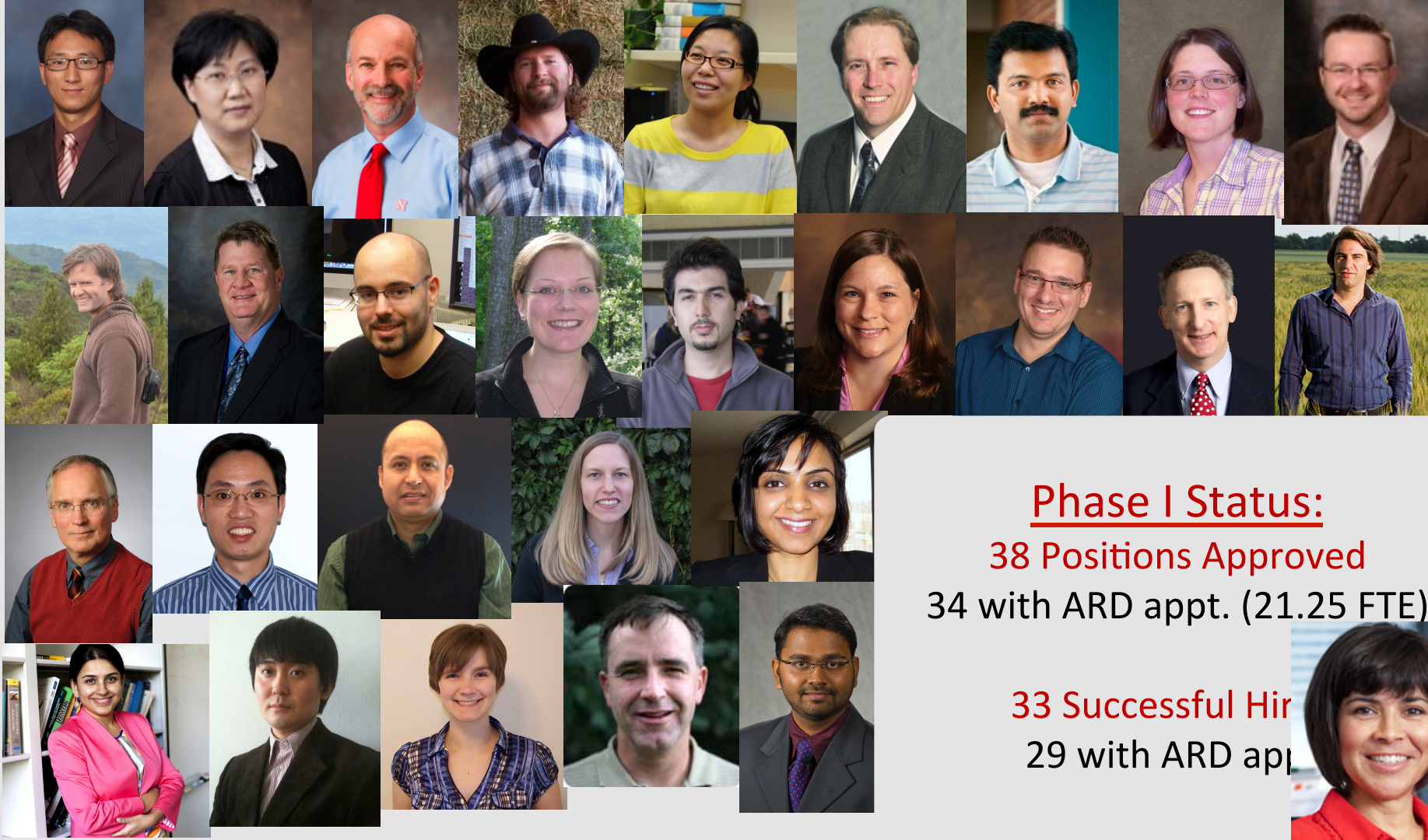
Problem Addressed/Expected Outcomes¹ (no more than 1500 characters):

Summary of Faculty Resources for this Priority Area

Faculty Positions ²	E	T	R	Status	Expertise	Contribution to Team
Existing (all units)						
Redirected						
New resources						

Leadership Council Retreat (July 2012) → 5 Priority Areas

Science Literacy	Stress Biology	Computational Sciences	Healthy Humans	Healthy Systems for Agricultural Production and Natural Resources	Core Positions
<ul style="list-style-type: none"> Life Sciences Education Science Literacy Coordinator Science Literacy Specialist 	<p>Plants</p> <ul style="list-style-type: none"> Plant-Arthropod Interactions Plant Molecular Physiologist Advanced Sensing Systems Engineer/Scientist Plant Virologist Plant Biotic Stress Biologist <p>Animals</p> <ul style="list-style-type: none"> Animal Stress Physiologist Animal Functional Genomicist Animal Breeding Genomicist Animal Theoretical Quantitative Geneticist <p>Agroecosystems</p>	<p>Computational Scientists</p> <p>3 positions each person working in one or more areas across the spectrum from molecular to organismal to systems data.</p>	<p>Behavioral Studies</p> <ul style="list-style-type: none"> Behavioral Based Epidemiology Behavioral Economics and Health Disparities Childhood Health Behaviors <p>Food & Nutrition</p> <ul style="list-style-type: none"> Food Safety Risk Assessment Food Lipid Chemistry & Functionality Lipid Metabolism & Health 	<p>Beef Systems</p> <ul style="list-style-type: none"> Beef Systems Specialist Biosystems Economist Forage / Crop Residue Systems Specialist Range/Forage Management Ecologist (PHREC) <p>High Plains Cropping Systems</p> <ul style="list-style-type: none"> Dryland Cropping Systems Specialist (PHREC) Water Resource Management Engineer Specialist 	<ul style="list-style-type: none"> Community Leadership Development Advanced Machinery Systems Engineer for Food, Fuel, Water Rangeland Ecologist Behavioral /Experimental Economics Micrometeorologist Food Allergy Risk Assessment Specialist Systems



Phase I Status:

38 Positions Approved

34 with ARD appt. (21.25 FTE)

33 Successful Hires

29 with ARD appt.



IANR Strategic Growth Initiative

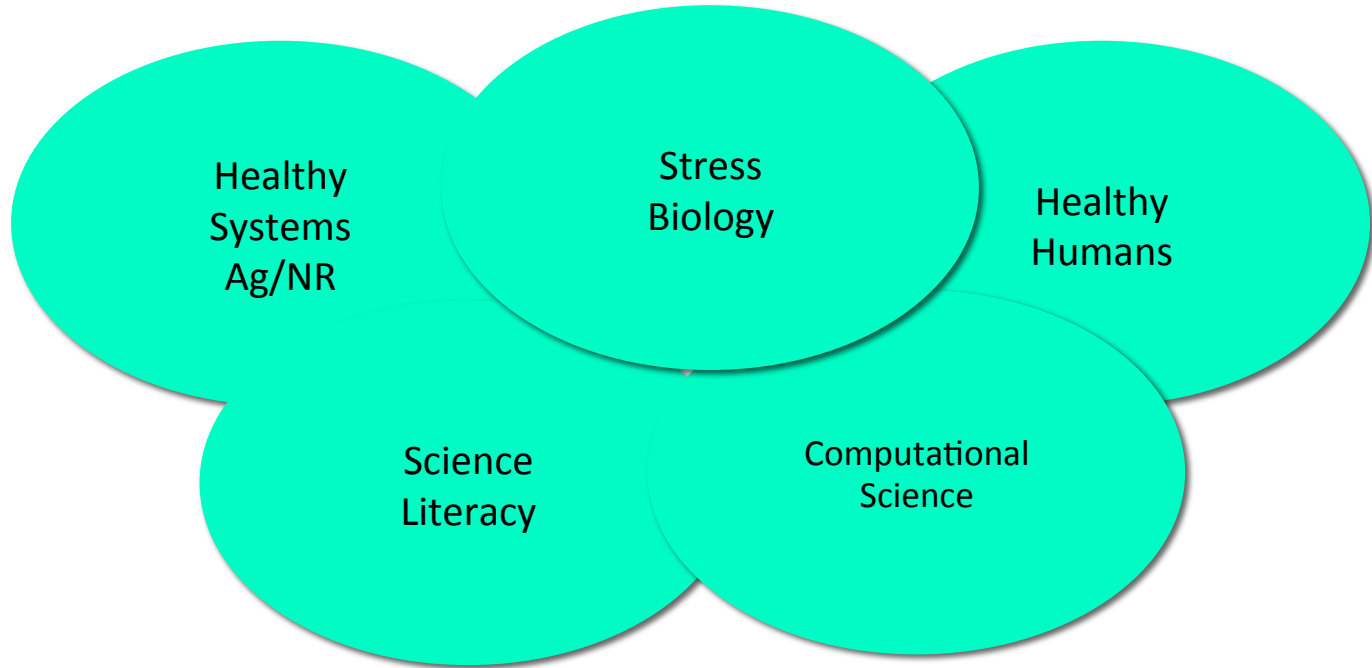
Making the process routine: Phase II and Beyond

Phase I	Plan Development	Q1-2	2012
	Leadership Retreat	Q3	2012
	Finalize/Approve Positions	Q3-4	2012
	Release Positions	Q1	2013
Phase II	Plan Development	Q1-2	2014
	Leadership Retreat	Q3	2014
	Finalize/Approve Positions	Q3-4	2014
	Release Positions	Q1	2015

Opportunity
For
Core
Requests

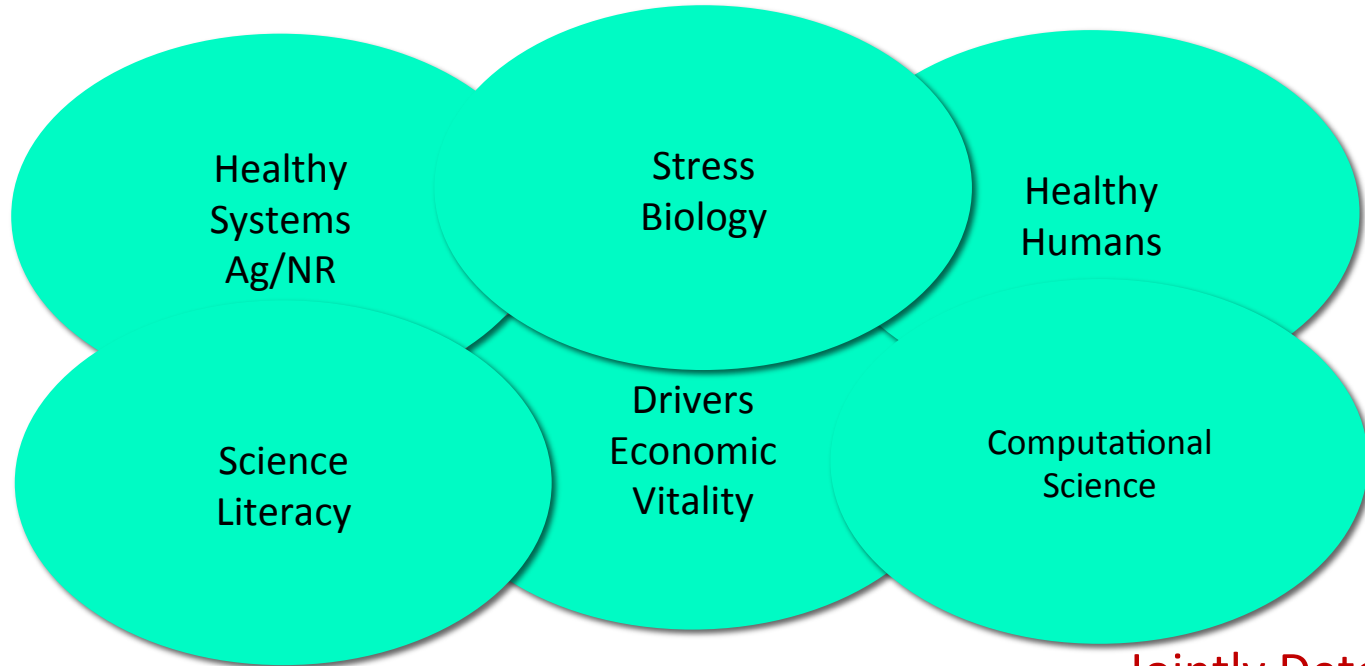
IANR Strategic Growth Initiative

Phase II Update



IANR Strategic Growth Initiative

Phase II Update



65 Position Embedded
in Plans

Leadership Council
Center Directors



Jointly Determined
40 Positions to be
Highest Priority

IANR Strategic Growth Initiative

Phase II Update

For each of the 40 Positions
identified as highest priority:

A Working Group for each
area will develop position
descriptions

August 29th



Submit to
Deans Council
[Expected Available
Resources: 20 positions]

Working Groups:

Science Literacy Stress Biology Healthy Humans Healthy Systems Comp. Sciences Econ. Vitality

Deans Lead:

Tiffany Heng-Moss

Deans Lead:

Archie Clutter

Deans Lead:

Marjorie Kostelnik

Deans Lead:

Ron Yoder

Deans Lead:

Archie Clutter

Deans Lead:

Chuck Hibberd

Unit Head Leads:

Mark Balschweid
Kathleen Lodi

Unit Head Leads:

Gary Brewer
Jim Steadman

Unit Head Leads:

Rolando Flores
Tim Carr
Paul Black

Unit Head Leads:

Roch Gaussoin
Larry Berger

Unit Head Leads:

John Carroll
Bert Clarke

Unit Head Leads:

Mark Riley
Larry Van Tassell

Food – Fuel – Water - People



Grazing/Livestock
Systems

Cropping
Systems

Food
Systems



Landscapes

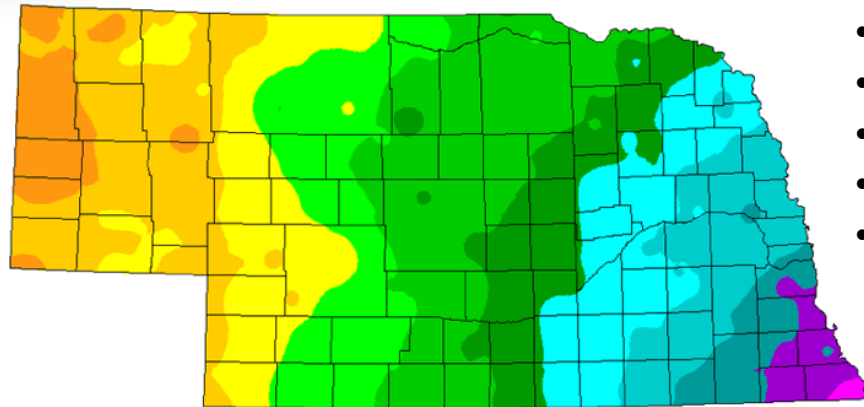


Communities

Nebraska is a 'Living Laboratory' of Natural Environments...



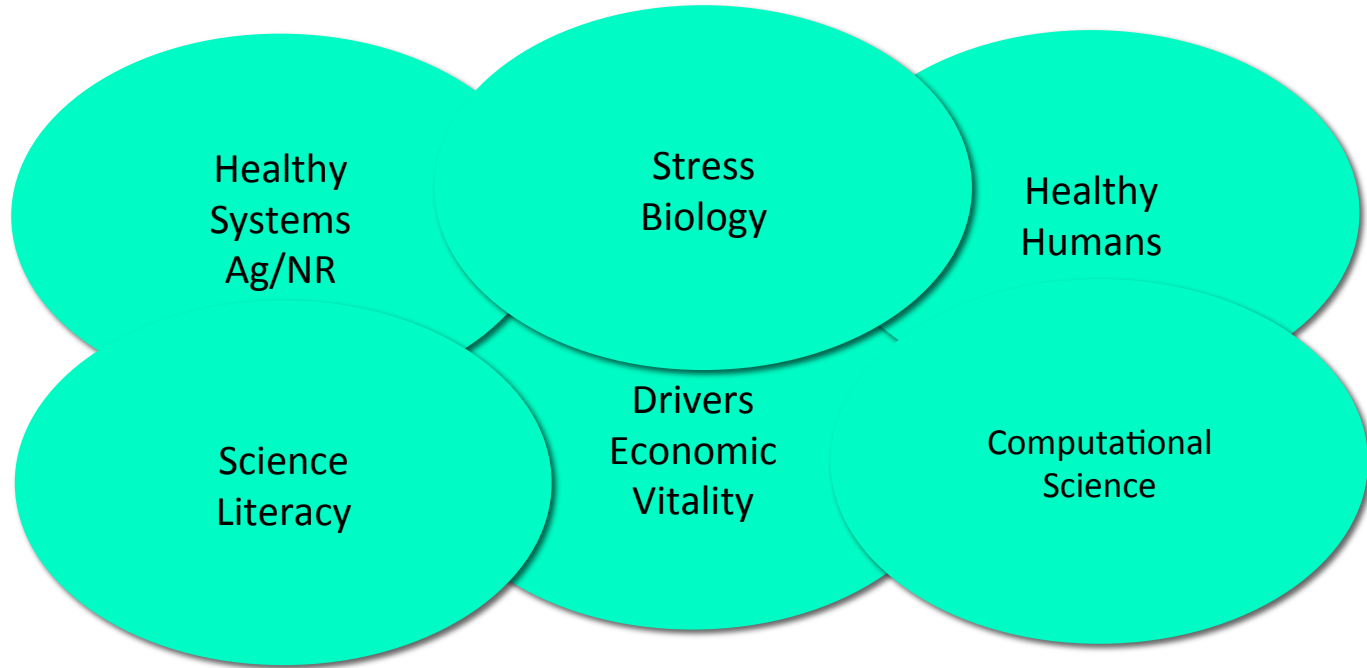
Average Annual Precipitation
Nebraska



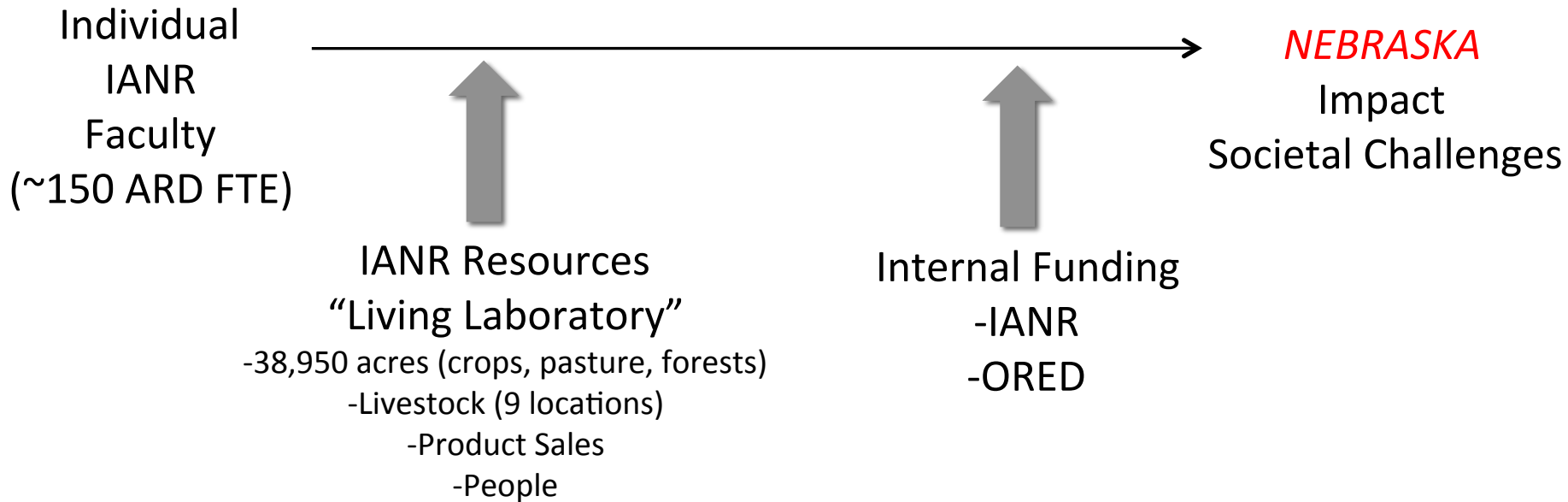
- Rainfall
- Elevation
- Soil Types
- Cropping/Livestock Systems
- Communities

IANR Strategic Growth Initiative

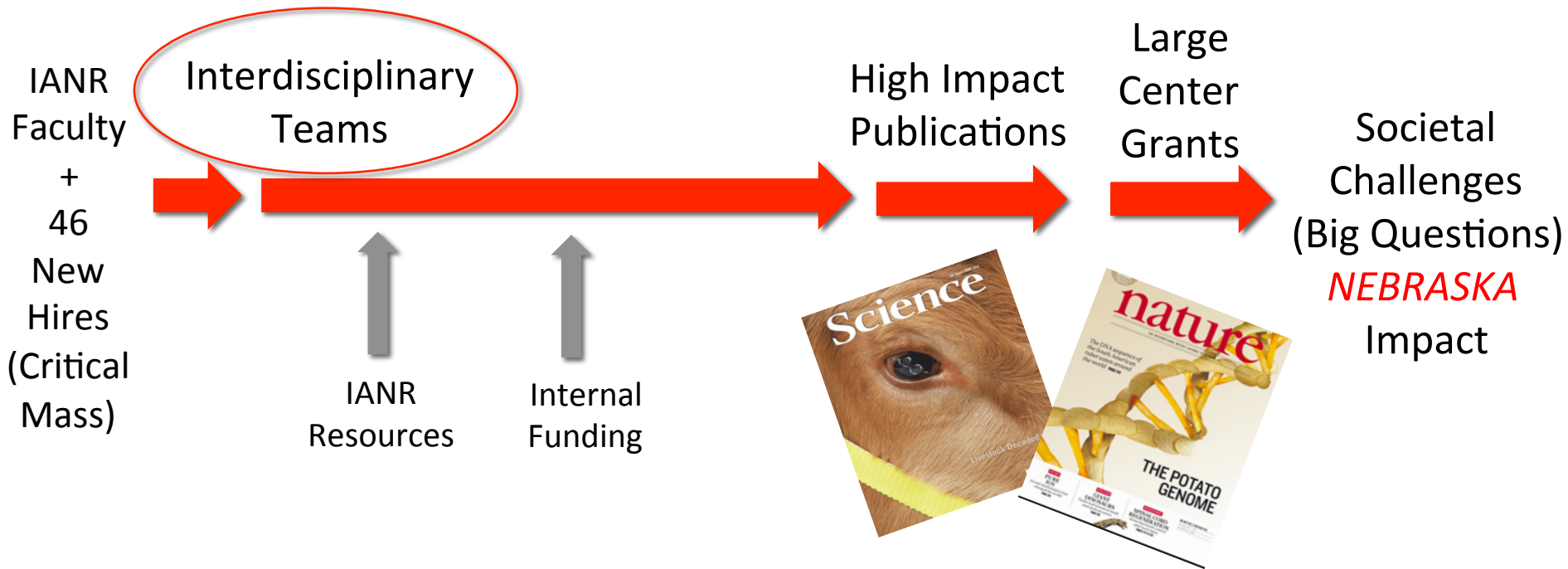
Integrated Team-Building



IANR Research Expectations



IANR Research Expectations



How Does ARD Assist Interdisciplinary Teams?

- 1) Bring faculty together
- 2) Training
 - A. Leadership
 - B. High-Performing Teams
- 3) Develop Concept Papers
- 4) Participate in Federal Agency Workshops
- 5) Network with Program Officers at Funding Agencies
- 6) Project Management
- 7) Other?

Concept Papers (2-5 pages)

- 1) Background
- 2) Significance (Why now?)
- 3) Competitive Advantage/Unique Expertise/Niche
- 4) Objectives (n=2-4)
- 5) Plan of Work
- 6) Expected Outcomes/Impact/Deliverables (So what?)
- 7) Budget (leveraged across units)

Examples of Success—Federal Funding:



STEC CAP (Shiga toxin-producing E. coli)

- \$25M USDA AFRI grant (2012)
- Led by IANR faculty (Rod Moxley)
- 15 partner institutions
- 51 collaborating scientists
- Scientific Advisory Panel (16 members)
- Stakeholder Advisory Board (18 organizations)

The goal of the STEC CAP grant is to reduce the occurrence and public health risks from eight targeted serogroups/serotypes of Shiga toxin-producing *Escherichia coli* (STEC-8) in beef using a quantitative microbial risk assessment (QMRA) platform.

Examples of Success—Federal Funding:



NIH Centers of Biomedical Research Excellence (COBRE)

Phase III (15 years of funding):

- Nebraska Center for Virology (NCV)
- Redox Biology

Phase I:

- NPOD (Nebraska Center for the Prevention of Obesity Diseases through Dietary Molecules)
- CIBC (Center for Integrated Biomolecular Communication)--pending
- *Opportunity for third, Phase I COBRE at UNL...*

Examples of Success—Federal Funding:



Center for Ecology, Evolution, and Management of Pesticide Resistance (CEEMPR)

- NSF Industry/University Cooperative Research Centers (I/UCRC)
- Led by Blair Siegfried (IANR) + Phil Westra & Todd Gaines (Colorado State Univ)
- 26+ letters of support
- Industrial Advisory Board

The goal of CEEMPR is to transform the field of pesticide resistance management (PRM) by: systematically, objectively, and transparently identifying, prioritizing, and funding coordinated research on the factors contributing to resistance evolution; implementing strategies and developing solutions that promote the long-term sustainability of environmentally sound pest management approaches; and providing targeted educational materials that facilitate adoption of sound resistance management practices and promote durability of novel pest management technologies.

Examples of Success—Industry & Federal Funding:

Food Allergy and Research Resource Program (FAARP)

- 70+ member companies
- Food processors, food manufacturers, ingredient manufacturers, equipment manufacturers, suppliers of analytical test kits for allergen residue detection...
- Companies pay fees to access UNL expertise, analysis...
- Federal funding for research and graduate education

Mission 1: Develop and provide the food industry with credible information, expert opinions, tools, and services relating to allergenic foods.

Mission 2: Develop and provide the agricultural biotechnology industry with credible information, expert opinions, tools, and services relating to novel foods and food ingredients including genetically modified products.

Examples of Success—No External Funding (yet):

Long-term Agroecosystem Research (LTAR) Network (USDA ARS)

Platte River-High Plains Aquifer (LTAR)

- Led by Tala Awada (SNR) & Brian Weinhold (USDA ARS)
- 26+ IANR faculty
- 13 IANR units/centers + 2 USDA ARS units
- Integrates cropping systems, beef cattle & grasslands, water, regional modeling...

Goal: Make available historical long-term data, cross-site research data, and common geographically-scalable databases necessary to deliver knowledge and develop applications to address increasingly critical agricultural challenges associated with producing the food, feed, fiber and feed-stocks needed by society.



Examples of Success—Enhanced Infrastructure

Consortium for Integrated Translational Biology (CITB)

- Led by Tom Clemente, Tala Awada, George Graef
- Plant phenotyping—growth chambers, greenhouses, fields
- End users
 - Food Processing Center
 - Industrial Ag Products Center
 - Tractor Testing Laboratory
 - Gut Initiative
 - Redox Biology...

Mission: create a transdisciplinary environment to bridge the genotype to phenotype gap.
Facilitate translation of innovations to the field

Many More IANR Interdisciplinary Teams...

Team	PI's; Primary Contacts	Status/Comments	Stress Biology	Healthy Ag & Nat Res Systems	Healthy Humans	Computational Science Initiative
Animal Genetics/Genomics/US MARC/Transdisciplinary Extension	Spangler	New initiative with USMARC underway		HANRS		CSI
Beef Production/Grazing/Crop Residue Removal	Jim MacDonald, Aaron Stalker, Karla Jenkins, Rick Rasby, Walt Schacht, Jerry Volesky, Martin	Explore opportunities for other internal and external funding	SB	HANRS		
Biofuels/Bioproductions/Biofibers/Industrial Ag Products Center (IAPC)	Riley; Nastasi; Cahoon; Liska; Buan	Strategic planning underway in collaboration with NCESR	SB	HANRS		
Carbon Science and Modeling	Suyker; Arkebauer	Re-established scheduled meetings of the Carbon Science and Modeling Team with ARDC Leadership; requested work on strategic planning for coordinated impact	SB	HANRS		CSI
Center for Advanced Land Management Information (CALMIT)/Geospatial Information Systems (GIS)	Wardlow; Zygielbaum	Re-engaged in strategic planning	SB	HANRS		CSI
Consortium for Integrated Translational Biology (plants)	Clemente; Awada; Graef	Newly funded initiative IANR/ARD	SB	HANRS		CSI
Precision Ag	Ferguson; Luck	Multiple opportunities in precision agriculture; ongoing private sector opportunity explored with MSU,	SB	HANRS		CSI

HISTORICAL—Internal, Competitive Funding Opportunities

1) IANR Strategic Investments (FY 2010)

- i. Research Strategic Planning
- ii. Enhancing Interdisciplinary Research Teams
- iii. Seed Grants: New Investigators
- iv. Seed Grants: New & Innovative Research
- v. Seed Grants: Research to Revise & Resubmit
- vi. Seed Grants: Integrated Projects
- vii. Enhancing Industry Partnerships

2) UNL Life Sciences (FY 2011)

- i. Enhancing Interdisciplinary Research Teams
- ii. Enhancing Industry Partnerships

See Handout

CURRENT--Internal Funding Opportunities

- 1) Foundations:** Wheat; Poultry; Agro-ecosystem; Water, landscape and soil conservation; etc.
- 2) Faculty Travel:** *Present* original scholarly work at professional or scholarly meetings
- 3) Big Idea Seminars:** Interdisciplinary seminars

CURRENT--Internal Funding Opportunities (cont'd)

4) Hatch Multistate:

Supplemental Funding (\$10,000/PI)

Enhanced Funding (\$100,000/single PI or team)

5) McIntire-Stennis: Cooperative forestry research

6) Animal Health & Disease Research (Section 1433)

CURRENT--Internal Funding Opportunities (cont'd)

7) ARD Bridge Funding: Provide support between one extramurally funded project and another
--ORED Revision Awards

8) ARD Strategic (Miscellaneous) Funding: Support for unique one-time needs not met by state allocations, grants, or other internal funding programs.

CURRENT--Internal Funding Opportunities (cont'd)

9) ARD and US MARC: Enhance existing research collaborations , or initiate new research collaborations, between IANR faculty with an ARD appointment and scientists at the US MARC

10) Plant Science Innovation: Seed grants (2013)

11) Consortium for Integrated Translational Biology (CITB): RFA expected in 2015 for plant phenotyping (lab to field)

FUTURE Priorities—ARD Funding Opportunities

If ARD has sufficient funding, which internal competitive grant program(s) would most likely enhance your competitiveness for external funding?

<http://go.unl.edu/ard3>

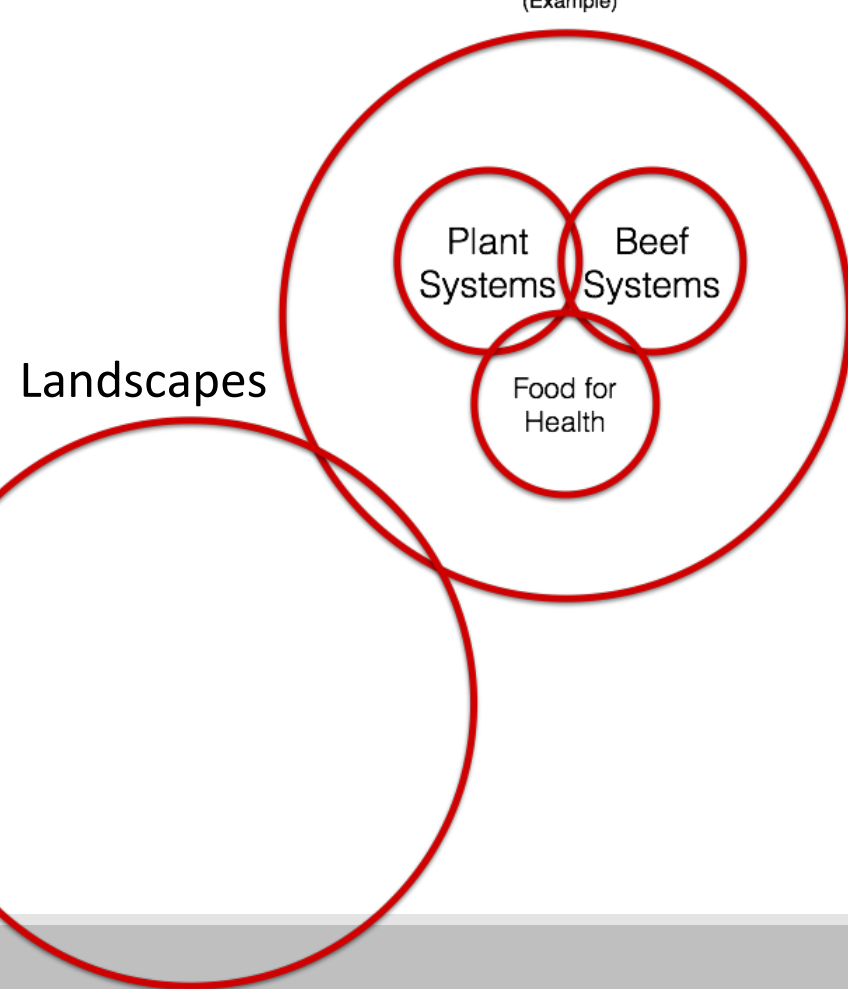
(Select two)

Conceptual Funding Model



Food

(Example)



Faculty Time
(State and Capacity)

Unit Allocated Staff
(GRA/Technologists)

Unit Allocated
Operating Funds

Land/Animal
Resources

Special Funding
(Dean/VC/ORED)

External
(Grant/Contract)
Resources

Food

Faculty Conceived and Lead Projects

Team Hatch

Multistate

Grant/Contract

Internal Seed Funding

Extension Program

Are Irrigated
Cropping
Systems
Sustainable
in the
Great Plains?

What are
ideal water application
strategies for
soybeans during
drought conditions?

Faculty Time

(3 FTE, including 1 FTE
Hatch & 1 FTE Hatch Match)

Unit Allocated Staff

(1 GRA from two units,
2 technologists)

**Unit Allocated
Operating Funds
(\$8,000)**

Land/Animal Resources

(SCAL, Rogers, ARDC, Brule Land)

**Special Funding
(\$20,000 Seed Grant)**

Grants
(USDA & NSF -
2 GRAs, 1 Educator)

IANR Commitment to Civil Rights

Enhancing the participation of all Nebraskans in UNL/IANR research and extension activities

A Core Value of ARD: Inclusiveness

IANR Commitment to Diversity and Inclusiveness:

Goal - Strengthen a community and a climate where diverse and unique contributions, talents, and skills of faculty, staff, and students are acknowledged, valued, respected, and rewarded, and where service for the good of the Institute is valued and excellence in teaching, research, extension and their integration is pursued.

IANR Commitment to Civil Rights

Enhancing the participation of all Nebraskans in UNL/IANR research and extension activities

Civil Rights laws/regulations that apply to Land-Grant Universities:

- Title VI and Title VII of The Civil Rights Act of 1964
- Age Discrimination Act of 1967
- Title XI – Education Amendments of 1972
- Title I and V of The Americans with Disabilities Act of 1990
- Limited English Proficiency (LEP) Policy

IANR Commitment to Civil Rights

Enhancing the participation of all Nebraskans in UNL/IANR research and extension activities

IANR Integrated Action Plan: <http://ianrhome.unl.edu/diversity>

Key Elements for ARD:

- Value of New Faculty Success Network, Annual Research Faculty Meeting, and future informational events/deliveries for ensuring awareness of plans and opportunities for proposal development support, internal funding, team-building and professional development
- Plans for specific training and awareness on topics of sexual harassment and Title VI, ADA accommodations, LEP public notification, Title VII employment, and recruitment, hiring and retention of minority faculty and graduate students
- Effective use of “The Faculty Search Process Best Practices” (developed by the UNL ADVANCE program) to help improve recruitment and hiring practices for IANR Phase II and beyond

IANR Commitment to Civil Rights

Enhancing the participation of all Nebraskans in UNL/IANR research and extension activities

IANR Integrated Action Plan: <http://ianrhome.unl.edu/diversity>

Key Elements for ARD:

- New Diversity position on the ARD Faculty Advisory Council: Beginning in the 2014/2015 academic year, a ninth position will be added by appointment of the Dean to enhance and ensure diversity in race, ethnicity and gender on the Council
- The ARD Faculty Advisory Council will be charged in 2014-15 with developing recommendations for best practices to overcome barriers in the recruitment, enrollment and retention of racial and ethnic minority and female graduate students

ARD Advisory Council

Members elected from 8 Districts designed to give representation to all Units and RE Centers

Districts:

- 1 AGECE, FS&T
- 2 AGH
- 3 SNR
- 4 ANSI, BSE
- 5 STAT, ENTO, VMBS
- 6 BIOC, PPATH
- 7 ALEC, CYFS, NHS, TMFD
- 8 All R&E Centers

Professional Development Opportunities

- Traditional focus on Faculty Development Leaves
- Great value for Faculty at any stage in their career (and for the Institution!) from topical, targeted professional development
- How can we create a culture of greater expectation and opportunity for ongoing professional development?
- What topics would have value for you?

Which professional development training sessions would you make an effort to attend?

<http://go.unl.edu/ard4>