Questions?

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Archived resources for AFRI Water RFA planning:
http://water.unl.edu/web/water/AFRIwater
Welcome Christopher Neale!

Research Director,
Robert B. Daugherty
Water for Food Institute
## FY 2014 Appropriations*

<table>
<thead>
<tr>
<th>Program</th>
<th>FY 2012</th>
<th>FY 2013</th>
<th>FY 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith-Lever</td>
<td>294.000</td>
<td>271.618</td>
<td>300.000</td>
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<tr>
<td>Hatch</td>
<td>236.334</td>
<td>218.349</td>
<td>243.701</td>
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<tr>
<td>AFRI</td>
<td>264.470</td>
<td>276.98</td>
<td>316.409</td>
</tr>
</tbody>
</table>

*Millions of dollars
Timeline

- Organizing faculty & networking
- Who is interested? Who will lead?
- AFRI Water RFA expected in January 2014
- Priorities, opportunities, deadlines
- 60 days(?) until submission deadline
  - IANR, DWFI, ORED facilitate/coordinate
  - Office of Proposal Development (OPD)
    - Organization, editing, forms, external review
  - Office of Sponsored Programs (OSP)
    - Budget assistance for CAP applications
Timeline

Transdisciplinary Conversations
Water for Food Research Community

Wednesday, February 19
Thursday, March 20
Thursday, April 24

4:30 – 6:00 p.m.
NET (1800 N. 33rd Street)
Website

Archived resources for AFRI Water RFA planning:
http://water.unl.edu/web/water/AFRIwater

• Faculty meetings
• Stakeholder listening session
• Platte River – High Plains Aquifer LTAR
• Faculty Survey

Web server upgrade—no updates until January 17, 2014
USDA NIFA AFRI Update

Challenge Area RFAs:

- Bioenergy: no new funding in FY 2014
- Climate Change: no new funding in FY 2014
- Childhood Obesity: Expected January 2014
- Food Safety: Expected January 2014
- Food Security: January 13, 2014
- Water: Expected January 2014

www.nifa.usda.gov/afri
2014 AFRI Food Security RFA

Two CAP programs:
1) Minimizing losses from pests & diseases of crops
2) Minimizing losses from pests & diseases of livestock

- $7.5M (total costs) for up to 5 years
- Up to $1.5M/year
- 4 or 5 awards total
- 2 of 3: research, education, extension
- Letter of Intent deadline: March 14, 2014
- Application deadline: June 12, 2014

www.nifa.usda.gov/afri
2015 AFRI Food Security RFA

Anticipated Priorities:

- Food loss and waste
- Sustainable production
- Food marketing and distribution systems
AFRI Challenge Area RFAs:

1) Coordinated Agricultural Project (CAP) grants
   - Integrated: research, education, and extension
   - Not more than 2/3 of budget on one function
   - Multi-disciplinary, multi-institutional, multi-state
   - BIG (?) grants:
     - $10M (total costs) for 5 years; renew up to 10 years
     - $25M (total costs) for 5 years; renew up to 10 years
       - UNL-led STEC CAP (Food Safety)
     - $45M (total costs) for 5 years; renew up to 10 years

www.nifa.usda.gov/afri
AFRI Challenge Area RFAs (cont’d):

Collaborators at other institutions?

Minority-serving institutions?
  - 1994 land grant universities (Tribal Colleges)
  - 1890 land grant universities (HBCU)
  - Hispanic-serving institutions (HSI)

www.nifa.usda.gov/afri
AFRI Challenge Area RFAs (cont’d):

2) Standard Grants (varies by RFA)

A) Single Function Projects
   • Research
   • Education
   • Extension
   • $300,000 - $1M (total costs) for up to 5 years

B) Integrated Projects
   • Two of three: research, education, or extension
   • Not more than 2/3 of budget on one function
   • $425,000 - $1M (total costs) for up to 5 years

www.nifa.usda.gov/afri
AFRI Challenge Area RFAs (cont’d):

3) Conference Grants
   • $50,000 for one year (F&A not allowed)

www.nifa.usda.gov/afri
AFRI Water RFA—from Federal Register

- Focus on developing solutions for water management that link food, water, climate change, energy, and environmental issues.

- Develop and transfer management practices, technologies, and tools for farmers, ranchers, forest owners and managers, and citizens to improve water resource quantity and quality.

- Link social, economic, and behavioral sciences with traditional biophysical sciences and engineering to address watershed- or aquifer-scale problems.

AFRI Water RFA – 3 Critical Topics

Immediate, comprehensive, and coordinated efforts in research, education, and extension:

1) Ensuring agricultural water security, addressing surface water, groundwater and reclaimed water needed to produce a wide array of agricultural goods and services now and into the future.

2) Improving nutrient management in agricultural landscapes with focus on nitrogen and phosphorus

3) Reducing impacts of chemicals of emerging concern and the presence and movement of waterborne pathogens in the landscape.

LONG-TERM AGRO-ECOSYSTEM RESEARCH (LTAR) NETWORK
TO ESTABLISH THE
PLATTE RIVER – HIGH PLAINS AQUIFER LTAR
Platte River – High Plains Aquifer LTAR

**Long-term Agro-ecosystem Research Network (LTAR)**
- Administered by USDA-ARS
- Recently approved, but no funding

Overall 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.

- Cropping systems
- Beef cattle and grasslands
- Water resources
- Regional modeling and interactions
Platte River – High Plains Aquifer LTAR

- LTAR Directors:
  - Brian Wienhold
    (USDA-ARS Agro-ecosystem Management Research Unit)
  - Tala Awada
    (IANR School of Natural Resources)

- 6 member faculty leadership team
- >20 faculty/scientist affiliates
- 10 research sites in Nebraska
- >30 active data monitoring programs
Draft Framework—AFRI application

Building Resilient Agro-ecosystems: Harvesting the Power of Big Data for Water and Food Security

- Platte River and/or High Plains Aquifer
- Adaptive management/ecosystem services
- Behavior, economics, governance
- Climate modeling and predictive models
- Cropping systems/crop productivity
- Irrigation systems
- Land use/land cover change
- Livestock systems
- Sensors, information technologies, visualization
- Watershed research/modeling
Discussion Questions

1) What are the basic research questions that need to be addressed?

2) What predictive models are available or can be constructed?

3) What governance models are available or needed?

4) What education/extension models are available or needed?

5) How can all of this information be integrated into a resilient system?
USDA NIFA AFRI
Water Challenge Area
Request for Applications (RFA)

Ag Water Quantity Faculty Meeting
January 15, 2014

Deb Hamernik
Ag Research Division, IANR

UNIVERSITY OF NEBRASKA–LINCOLN