6-2008

ARD News June 2008

Follow this and additional works at: http://digitalcommons.unl.edu/ardnews

Part of the Agriculture Commons

http://digitalcommons.unl.edu/ardnews/102

This Article is brought to you for free and open access by the Agricultural Research Division of IANR at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Agricultural Research Division News & Annual Reports by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.
June 2008

Comments from Dean Gary Cunningham

As most, if not all, of you know by now, we do have a new farm bill, passed by Congress and signed by the President. The tradition in Congress has been to give each new farm bill a title that reflects the bill’s major emphasis or aspirations. The new bill is called the Food, Conservation, and Energy Act of 2008. Unlike other recent farm bills, this one legislates some major changes in the research and education title that affect the agency that funds programs at our land-grant universities and administers the USDA’s competitive grant research, extension and higher education programs. Most of these changes are organizational and should not have major impacts on our programs or funding. There are, however, some changes that have the potential to increase funding, both from new competitive grant programs with mandatory funding (i.e., no need for appropriation each year) and from authorization for increases in the allowable appropriation level for existing grant programs (with new names).

The Under Secretary for Research, Education and Economics (the under secretary in charge of the mission area that includes CSREES, ARS, ERS and NASS) will also carry the title of “Chief Scientist” for USDA. This individual is required to develop an annual USDA science “Roadmap” that is essentially a strategic plan for the coordination of research, extension and education among the agencies in the REE mission area. This is to be done by a program staff drawn from the agencies’ existing staff. This staff will represent the six divisions of the REE office: Renewable energy, resources and environment; Food safety, nutrition and health; Plant health, production and products; Animal health, production and products; Agriculture systems and technology; Agriculture economics and rural communities.

The current Cooperative State Research Education and Extension Service (CSREES) will be renamed the National Institute for Food and Agriculture (NIFA). All of the existing programs and funding authorities of CSREES will be retained by NIFA. NIFA will be led by a director who is to be an “esteemed” scientist appointed by the President for a six-year term. The NIFA director will report to the Secretary of Agriculture or the Secretary’s designee.

The competitive grant program has been renamed the Agriculture and Food Research Initiative (NRI) and the Initiative for Future Agriculture and Food Systems (IFAFS). The funding authorization for AFRI is $700 million, an increase of $200 million over the NRI authorization. Actual funding in any one year will still be determined by the appropriation process. Without great effort by the land-grant universities, the actual appropriations are not likely to be greater than the current level for the NRI. The intent of Congress is that the actual appropriation will be divided; 60% for basic research, 40% for applied research, and 30% of all grants must be integrated projects with at least two of the three land-grant functions (research, extension or education). The actual implementation will depend on NIFA-developed RFAs. The facilities and administration costs on AFRI grants will be limited to 22% of total costs, which roughly equates to 29% of the modified total costs used by NSF and other federal agencies.

NIFA is also authorized to administer a new set of competitive grant programs with mandatory funding that does not require annual appropriations by Congress, as well as discretionary funding that does require appropriation each year. There will be four such programs:

1. A research and extension program in organic agriculture, which will begin in FY 2009 with $18 million in mandatory and $25 million in authorized discretionary funding per year.

2. A specialty crops research program that will begin in FY 2008 with $30 million in mandatory and $100 million in authorized discretionary funding per year.

3. A New Farmer/Rancher grant program that will begin in FY 2009 with $18 million in mandatory and $30 million in authorized discretionary funding per year.

4. A biomass research and development program that will begin in FY 2009 with $20 million in mandatory and $35 million in authorized discretionary funding per year.

Some of these authorization levels will increase slightly over the five-year life of the Food, Conservation, and Energy Act.

This is the overall plan. As I mentioned earlier, this should not have major impacts on our programs. On the positive side, it could, as many hope, lead to enhanced funding opportunities for our programs in the future. More details will become apparent as our federal partners implement this plan and begin to release their requests for applications. ARD will continue its positive engagement with USDA, Congress and our fellow land-grant institutions and make every effort to ensure that these changes are positive for Nebraska.
ARD Advisory Council Election Results

The following faculty members have been elected to the ARD Advisory Council for a three-year period beginning July 1, 2008.

District 1: Amalia Yiannaka (Agricultural Economics). Representing faculty in the Agricultural Economics and Food Science and Technology Departments.

Julie Huddle (School of Natural Resources)

"Effects of eastern redcedar on the hydrology of cottonwood stands in the Republican River Basin"
Amount Funded: $10,000

C. Dean Yonts (Panhandle Research and Extension Center)

"How much soil water can be conserved using a no-till system with a crop rotation of sugar beets, dry beans and corn?"
Amount Funded: $11,000

District 2: Rhae Drijber (Agronomy and Horticulture). Representing faculty in the Agronomy and Horticulture Department.

District 3: Jim Brandle (School of Natural Resources). Representing faculty in the School of Natural Resources.

District 4: Brett White (Animal Science). Representing faculty in the Departments of Animal Science and Biological Systems Engineering.

District 5: Raul Barletta (Veterinary and Biomedical Sciences). Representing faculty in the Statistics, Entomology and Veterinary and Biomedical Sciences Departments.

District 6: Jim Alfano (Plant Pathology). Representing faculty in the Biochemistry and Plant Pathology Departments.

District 7: Nancy Lewis (Nutrition and Health Sciences). Representing faculty in the Departments of Agricultural Leadership, Education and Communication, Child, Youth and Family Studies, Nutrition and Health Sciences and Textiles, Clothing and Design.

District 8: Rick Funston (West Central Research and Extension Center). Representing faculty in the North-east Research and Extension Center, Panhandle Research and Extension Center and West Central Research and Extension Center.
Please join the ARD staff in expressing appreciation to Lance Meinke, Jaekwon Lee, and Richard Perrin for their dedicated support of the ARD Advisory Council during the past three years. Their contributions have been invaluable in surfacing concerns, providing input and selecting award recipients. We wish them continued success in their academic careers.

National Science Foundation

SAVE THE DATE!

The first National Science Foundation Regional Grants Conference of fiscal year 2009 will be hosted by the University of Nebraska-Lincoln in Omaha – October 20-21, 2008, with optional FastLane/Grants.gov sessions on the 19th.

The two-day conference is a must, especially for new faculty, researchers and administrators who want to gain key insight into a wide range of current issues at NSF, including the state of current funding, new and current policies and procedures and pertinent administrative issues. NSF program officers representing each NSF directorate will be on hand to provide up-to-date information about specific funding opportunities and answer your questions.

Highlights include:
- New programs and initiatives
- Future directors and strategies for national science policy
- Proposal preparation
- NSF's merit review process
- Cross-disciplinary and special interest programs
- Conflict of interest policies
- Breakout sessions by discipline

An early registration discount will be offered for UNL faculty, and transportation between UNL and the conference site in Omaha will be provided. Watch for more information at http://research.unl.edu.

Undergraduate Honors Research Program

Funds for the 2008-2009 Academic Undergraduate Honors Student Research Program have been allocated to units for support of undergraduate student research projects. This program is open to junior and senior University Honors Program students proposing to work with a faculty research mentor who has an ARD appointment. Four proposals were received and funded. The following students have received funding:

Alisha O'Malley (Biochemistry) $2,500
Mentor: Dr. Melanie Simpson
"Structural Determinations of UDP-Glucose Dehydrogenase"

Joshua J. Bies (Biochemistry) $2,500
Mentor: Joan Krush
"Identification and Characterization of a Cadmium Efflux Pump in Aspergillus fumigatus"

Lisa Karel (Biological Systems Engineering) $2,500
Mentor: Dr. Greg Bashford
"Regulation of Heart Rate Variability with ECG Biodfeedbacks"

Dennis Bierle (Biological Systems Engineering) $2,500
Mentor: Dr. Jeyam Subiah
"Tissue Characterization Using Hyperspectral Imaging"

David H. and Annie E. Larrick Fund
July-December 2008

The David H. and Annie E. Larrick fund supports travel of graduate students who are conducting research in fields other than animal science, agricultural education and leadership, and veterinary and biomedical sciences. The Larrick endowment will assist the following students with $500 travel grants to present research findings at national or regional meetings.

Name: Gregory Gifford
Department: Agricultural Leadership, Education and Communication
Meeting: Midwest Academy of Management Conference
Place: St. Louis, MO

Name: Joana S.P. Story
Department: Agricultural Leadership, Education and Communication
Meeting: Midwest Academy of Management Conference
Place: St. Louis, MO

Name: Juan Pablo Sesmero
Department: Agricultural Economics
Meeting: American Agricultural Economics Annual Meeting
Place: Orlando, FL

Name: Jose L. Aponte-Rivera
Department: Agronomy and Horticulture
Meeting: Molecular and Cellular Biology of the Soybeans Meeting
Place: Indianapolis, IN

Name: Kenton Peterson
Department: Agronomy and Horticulture
Meeting: Soil Science Society of America Crop Science Meeting
Place: Houston, TX

Name: Desalegn Debelo Serba
Department: Agronomy and Horticulture
Meeting: Joint Annual Meeting (Society of Agronomy/Crop Science)
Place: Houston, TX

Name: Matthew Giovanni
Department: Agronomy and Horticulture
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Meeting</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mallorie Wilken</td>
<td>Animal Science</td>
<td>American Society of Animal Science Meeting</td>
<td>Portland, OR</td>
</tr>
<tr>
<td>Mahmoud Masa'deh</td>
<td>Animal Science</td>
<td>Poultry Science Meeting</td>
<td>Niagara Falls, Ontario, Canada</td>
</tr>
<tr>
<td>Kelsey Rolfe</td>
<td>Animal Science</td>
<td>American Society of Animal Science Meeting</td>
<td>Indianapolis, IN</td>
</tr>
<tr>
<td>David Adle</td>
<td>Biochemistry</td>
<td>P-ATPase Meeting</td>
<td>Aarhus, Denmark</td>
</tr>
<tr>
<td>Tiantian Xu</td>
<td>Biological Systems Engineering</td>
<td>IEEE International Ultrasonics Symposium</td>
<td>Beijing, China</td>
</tr>
<tr>
<td>Luis Octavio Lagos</td>
<td>Biological Systems Engineering</td>
<td>American Water Resource Association Conference</td>
<td>New Orleans, LA</td>
</tr>
<tr>
<td>Barburao Kamble</td>
<td>Civil Engineering</td>
<td>IEEE International Geoscience and Remote Sensing Symposium</td>
<td>Boston, MA</td>
</tr>
<tr>
<td>Jesus Orozco-Arajo</td>
<td>Entomology</td>
<td>Entomological Society of America Annual Meeting</td>
<td>Reno, NV</td>
</tr>
<tr>
<td>Rakhi Panda</td>
<td>Food Science and Technology</td>
<td>Annual Convention of Institute of Food Technologists</td>
<td>New Orleans, LA</td>
</tr>
<tr>
<td>Anuja Patnaik</td>
<td>Food Science and Technology</td>
<td>Annual Convention of Institute of Food Technologists</td>
<td>New Orleans, LA</td>
</tr>
</tbody>
</table>
### New or Revised Projects
#### March and April 2008

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Project Details</th>
<th>Investigator(s)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEB 22-328</td>
<td>Genetics, breeding and evaluation of winter small grains crops for Nebraska</td>
<td>P. Stephen Baenziger, Agronomy and Horticulture</td>
<td>Hatch project effective April 1, 2008, through March 30, 2013</td>
</tr>
<tr>
<td>NEB 28-094</td>
<td>Improved monitoring techniques and EILs for western bean cutworm on field corn</td>
<td>Robert Wright, Entomology</td>
<td>Special Grant project effective June 1, 2008, through May 31, 2010</td>
</tr>
<tr>
<td>NEB 42-104</td>
<td>NC1038, Methods to increase reproductive efficiency in cattle</td>
<td>Rick Funston, West Central Research and Extension Center</td>
<td>Multistate project effective Oct. 1, 2007, through Sept. 30, 2012</td>
</tr>
<tr>
<td>NEB 43-106</td>
<td>Intensification of winter wheat-based dryland cropping systems for western Nebraska</td>
<td>Drew Lyon, Panhandle Research and Extension Center</td>
<td>Hatch project effective April 1, 2008, through March 31, 2013</td>
</tr>
</tbody>
</table>

### Proposals Submitted for Federal Grants
#### March and April 2008

<table>
<thead>
<tr>
<th>Proposal Details</th>
<th>Investigator(s)</th>
<th>Agency</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fate and bioavailability of estrogenic compounds in aquatic sediment</td>
<td>Shannon Bartelt-Hunt and Daniel Snow</td>
<td>NSF</td>
<td>$191,228</td>
</tr>
<tr>
<td>Understanding starch functionality in cereal foods</td>
<td>David Jackson, Randy Wehling and RM Ratnayake</td>
<td>USDA/CSREES/NRI</td>
<td>$345,838</td>
</tr>
<tr>
<td>Structure-function of the HA receptor for endocytosis</td>
<td>Melanie Simpson</td>
<td>University of Oklahoma (NIH)</td>
<td>$499,319</td>
</tr>
<tr>
<td>Seed cache and dispersal by granivorous rodents in agricultural fields and their impact on invasive weeds</td>
<td>Robert Wilson and Gustavo Sbatella</td>
<td>NRI</td>
<td>$208,888</td>
</tr>
<tr>
<td>Structural basis of DJ-1 function in Parkinson's disease</td>
<td>Mark Wilson</td>
<td>NIH</td>
<td>$1,355,297</td>
</tr>
<tr>
<td>Phylloquinone (vitamin K1) metabolism in plants</td>
<td>Gilles Basset</td>
<td>NSF</td>
<td>$468,395</td>
</tr>
<tr>
<td>Seagrass habitat mapping Louisiana and Mississippi</td>
<td>Sunil Narumalani and Donald Rundquist</td>
<td>EPA</td>
<td>$102,130</td>
</tr>
<tr>
<td>Linking loess landforms and eolian processes</td>
<td>Paul Hanson</td>
<td>NSF</td>
<td>$39,101</td>
</tr>
<tr>
<td>Classical swine fever surveillance</td>
<td>David Steffen</td>
<td>USDA/APHIS</td>
<td>$52,866</td>
</tr>
<tr>
<td>Risk management with limited irrigation</td>
<td>Raymond Supalla, Derrel Martin, Gary Hergert, Christopher Thompson, Paul Burgener and Brian McMullen</td>
<td>USDA/RME</td>
<td>$74,690</td>
</tr>
<tr>
<td>Purple loosestrife (lythrum salicaria) mapping and biocontrol along the Niobrara Scenic River</td>
<td>William Lewis, Ruth Heaton, Thomas McGowan, Walter Stroup, Carolyn Edwards and Ira Papick</td>
<td>USDA/APHIS</td>
<td>$39,274</td>
</tr>
<tr>
<td>Preparing ELL children</td>
<td>Susan Sheridan, Carolyn Edwards, Lisa Knoche and James Bovaird</td>
<td>NIH</td>
<td>$3,547,144</td>
</tr>
<tr>
<td>Alliance for Food Protection-Nebraska</td>
<td>Steve Taylor</td>
<td>USDA/CSREES/SRGP</td>
<td>$121,305</td>
</tr>
</tbody>
</table>
Grants and Contracts Received for March and April 2008

Agronomy and Horticulture:
- Mark Bernards – Pioneer Hybrids: $10,000.00
- Kenneth Cassman – NCRA of Experiment State Directors: $12,000.00
- Roy Spalding – Nebraska Department of Agriculture: $31,000.00
  Miscellaneous Grants under $10,000: $82,900.00

Animal Science:
- Miscellaneous Grants under $10,000: $5,000.00

Biochemistry:
- Joseph Barycki – NIH: $219,464.00
- Donald Becker – NIH: $301,208.00
- Melanie Simpson – NIH-Cancer Institute: $205,583.00
- Robert Spreitzer – U.S. Department of Energy: $130,000.00

Biological Systems Engineering
- Viacheslav Adamchuk – Channing B. and Katherine W. Baker Fund: $12,000.00
  Miscellaneous Grants under $10,000: $9,069.00

Entomology:
- Blair Siegfried – USDA/ARS: $25,000.00
  Miscellaneous Grants under $10,000: $32,500.00

Food Science and Technology:
- Rolando Flores – Nebraska Wheat Board: $33,084.00

TOTAL: $1,943,510.00