University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Agricultural Research Division News & Annual Reports

Agricultural Research Division of IANR

5-1-2005

Agricultural Research Division News --June 2005

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

Part of the Agriculture Commons

"Agricultural Research Division News --June 2005" (2005). *Agricultural Research Division News & Annual Reports.* Paper 2.
http://digitalcommons.unl.edu/ardnews/2

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.

University of Nebraska Lincoln

ARD

Agricultural Research Division News

Office of the Dean, 207 Ag Hall, P.O. Box 830704, Lincoln, NE 68583-0704, Phone (402) 472-2045, FAX (402) 472-9071

June 2005 Volume 38, Number 3

Comments from the Dean

Colleagues, this will be my last column written for **ARD News.** My first column was written for the December 1988 issue of the newsletter. Since that time 96 issues have been published. The newsletter has given me the opportunity to present my ideas (philosophy or biases) to ARD faculty and staff. Hopefully, each issue of the newsletter has contained some information of use to all of the readers. Another purpose of the newsletter is to recognize some of the accomplishments of our faculty, staff and students through listing of grant awards and projects approved.

Much of the credit for **ARD News** should go to Dora Dill and the CIT editorial staff. After ARD administrators write the articles, Dora prepares the copy for editing, layout and printing in CIT. This process has worked well for many years and I want to express my thanks to all the staff who have been involved in publishing the newsletter over the last 20 years.

I will not repeat my comments contained in the October 2004 issue of the newsletter but want to say a "job well done" to all ARD faculty, staff and students who have been involved in research during the past 17 years. You have been tremendously successful by any metric and are to be congratulated for elevating the stature of UNL agriculture, natural resources and human sciences research.

It is not appropriate to close my comments without expressing appreciation for the outstanding efforts of the ARD office staff during the last 17 years. The ARD office personnel have been amazingly stable during that period, and Dale Vanderholm, Dora Dill, Nelvie Lienemann, and Diane Mohrhoff have performed their duties with excellence and dedication. The ARD office has been a great place to work because of the staff. We have all strived to provide the highest level of service to research faculty and in my view have been successful.

After returning from a month-long vacation that starts on July 1, I will occupy an office in Keim Hall. I look forward to seeing each of you on campus and observing your research accomplishments. Best wishes for continued success in your careers.

Darrell W. Nelson
Dean and Director

ARD Internship
Richard Ferguson

For the past 11 months, I have had the privilege of serving as an administrative intern within the Agricultural Research Division. This has been one of the phases of the ESCOP/ACOP Leadership Development program within USDA. The first phase was a week-long leadership development course last June in Indianapolis, during which approximately 70 participants from land-grant universities and colleges from across the country collectively learned about leadership and their personal leadership styles. The second phase involved activities and a project at each participant's home institution. The third phase involved three days spent in Washington, D.C., in March, during which participants learned about management of national programs within USDA-CSREES, as well as interacted with CARET delegates from their home state. One of the days in Washington was spent visiting Nebraska congressional delegates with Nebraska's CARET representatives and Dr. Owens.

Most ESCOP/ACOP Leadership Development participants from other states concentrated their Phase II efforts on a specific project and had the chance to interact with their dean or other administrators on a limited basis. I particularly appreciated the approach used by Dr. Nelson, to be able to spend a year in the ARD office as an administrative intern and interact on a regular basis with the ARD staff. By doing this, I have been able to gain a perspective of the overall function of the administration of a state experiment station that most of my classmates did not.

In my role as administrative intern, I participated in weekly ARD staff meetings, most ARD Advisory Council meetings, and several meetings of the Vice Chancellor's Council. All of these have been worthwhile opportunities to learn more about the overall function of IANR. One of my primary activities has been to lead review meetings of Hatch or State projects that are being proposed or revised. In this process, I gained a new appreciation for the breadth of research endeavors within IANR. As I would suspect is the case for many scientists with a research appointment in IANR, my understanding of the types of research we conduct was limited to a fairly narrow group of disciplines. By leading the project outline review, I have become acquainted with a wide range of IANR research efforts.

It is the policy of the University of Nebraska-Lincoln not to discriminate on the basis of gender, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin or sexual orientation.

IANR

The primary project I have been working on is to develop a Web-based, "paperless" process for the development and review of Hatch and State projects, in collaboration with CIT programming staff. The current process is a hybrid of traditional project review followed by electronic submission of the approved project and necessary forms to USDA. This new process will allow scientists developing ARD projects to draft an outline using word processing software, then submit the draft on-line. From that point, the process of departmental and ARD review of the project outline, and project outline revision by the scientist, will flow through the ARD Web site. One of the challenges for ARD staff has been to integrate possible meeting dates for the project investigator, department head, reviewers and ARD representative. The Web site will have a calendar function that should simplify this process for ARD staff as well as those involved in the project review. The Web site also will automatically notify project investigators when annual CRIS reports are due and when the project is about to terminate. The primary goal of this process is to make the entire project development and review process easier for faculty and ARD staff.

I have very much enjoyed this opportunity to serve as administrative intern in ARD, and particularly the chance to work with Dr. Nelson and the ARD staff. This experience has provided affirmation to me that we as faculty and staff are privileged to work for a great institution.

Strategic Planning in IANR

The Institute of Agriculture and Natural Resources has been engaged in a strategic planning process as part of the UNL-wide strategic planning effort. The UNL Colleges and the Institute presented draft versions of their strategic plans to the Senior Administrative Team in late April. The process of strategic planning will continue over the next several months. A complete version of the Institute draft is available on the IANR Web site. The five priority goals are listed below. Details on specific action steps are available on the Web site. You are encouraged to review the strategic plan and provide comments and feedback to Alan Baquet.

IANR Priority Goals 2005-2008

Priority Goal 1: Redefine the College of Agricultural Sciences and Natural Resources to capture its breadth and diversity of academic programs and to ensure student success in the 21st century.

Priority Goal 2: Develop an integrated multi-disciplinary, multi-functional water resources program addressing Nebraska's needs that provides statewide, national and international leadership in water quality and quantity management in the next decade.

Priority Goal 3: Enhance rural economic opportunity and community revitalization efforts to create more opportunities for future generations, improve the quality of life and to attract talented and educated people to build their lives in Nebraska.

Priority Goal 4: Enhance research and scholarship to create new knowledge that addresses priority needs of Nebraskans and all people.

Priority Goal 5: Strengthen food security, food safety and nutrition programs to ensure that all Nebraskans have a secure and nutritious food supply that enhances wellness.

Sampson Range and Pasture Management Endowments

Five proposals were submitted to the ARD Sampson Range and Pasture Management Endowment and all five are being funded for 2005-2006. This endowment was established in the University of Nebraska Foundation by the widow of Arthur William Sampson to support range and pasture management programs at the University of Nebraska. Sampson proposals were awarded to the following:

Walter H. Schacht, Agronomy and Horticulture Department
(Jerry Volesky, West Central Research and Extension Center; Terry Klopfenstein, Animal Science Department)
"Grazing System Effects on Beef Cattle Diet Quality in the Eastern Sandhills"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Patrick Reece, Panhandle Research and Extension Center
"Fall Green-up and Defoliation Effects on Subsequent-year Growth of Cool Season Graminoids in Mixed-grass Prairie: Implications for Grazing Management"
Total Amount Received: $8,700
Funding Period: May 1, 2005 - April 30, 2006

Robert Wilson, Panhandle Research and Extension Center
(Jerry Volesky, West Central Research and Extension Center)
"Controlling Downy Brome in Rangeland"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Ron Johnson, School of Natural Resources
(Jim Brandle, School of Natural Resources; Erin Blankenship, Statistics)
"Potential for Grassland Birds to Suppress Insect Pests in Cropfields"
Total Amount Received: $5,000
Funding Period: May 1, 2005 - April 30, 2006

Jerry Volesky, West Central Research and Extension Center
(Bruce Anderson, Agronomy and Horticulture)
"Yield and Quality Stockpiled Cool-season Perennial Grasses"
Total Amount Received: $7,000
Funding Period: May 1, 2005 - April 30, 2006

Anna Elliott Proposals

Eighteen proposals were received for the Anna H. Elliott fund. This foundation fund was established in the University of Nebraska Foundation with the stipulation that earnings be used for research in some area of agriculture, particularly in the field of plant sciences, and with preference to plant science in Western Nebraska. Seven proposals were funded as follows:

Ismail Dweikat, Agronomy and Horticulture Department
(David Baltensperger, Panhandle Research and Extension Center)
"Evaluation of Cold Tolerance in Sorghum Under Controlled Environmental Conditions"
Total Amount Received: $15,000
Funding Period: May 1, 2005 - April 30, 2006

Ayse Irmak, Biological Systems Engineering Department
(Derrell Martin, Biological Systems Engineering; Suat Irmak, Biological Systems Engineering; Gary Hergert, Panhandle Research and Extension Center; Dean Yonts, Panhandle Research and Extension Center; Steve Melvin, West Central Research and Extension Center)
"Developing Irrigation Management Decisions Using a Functional Crop Growth Model"
Total Amount Received: $15,000
Funding Period: May 1, 2005 - April 30, 2006

Robert Harveson, Panhandle Research and Extension Center
(Dean Yonts, Panhandle Research and Extension Center; Anne Vidaver, Plant Pathology)
"New Investigations of a Re-emerging Disease of Dry Beans in Western Nebraska"
Total Amount Received: $13,000
Funding Period: May 1, 2005 - April 30, 2006

Gary Hergert, Panhandle Research and Extension Center
(David Tarkalson, West Central Research and Extension Center)
"Aerial Imagery and GIS to Improve Crop Yields on High pH Western Nebraska Soils"
Total Amount Received: $15,000
Funding Period: May 1, 2005 - April 30, 2006

Robert Wilson, Panhandle Research and Extension Center
"Improving Weed Control in Chicory in Western Nebraska"
Total Amount Received: $5,250
Funding Period: May 1, 2005 - April 30, 2006

James Steadman, Plant Pathology Department
(Carlos Urrea, Panhandle Research and ExtensionCenter; Dale Lindgren, West Central Research and Extension Center)
"Use of Conventional and Molecular Techniques to Identify and Track Multiple Disease Resistance in Nebraska Dry Bean Breeding Lines"
Total Amount Received: $15,000
Funding Period: May 1, 2005 - April 30, 2006

Jerry Volesky, West Central Research and Extension Center
(Bruce Anderson, Agronomy and Horticulture; David Tarkalson, West Central Research and Extension Center)
"Forage Production Under Different Irrigation Water Allocations"
Total Amount Received: $12,000
Funding Period: May 1, 2005 - April 30, 2006

ARD Interdisciplinary Research Grants Program

Seventeen proposals were submitted to the ARD Interdisciplinary Research Grants Program and two proposals were selected for 2005-2006 funding. We were, however, able to fund five continuation projects. New ARD Interdisciplinary Research Grants were awarded as follows:

Brett White, Animal Science Department
[Janos Zempleni, Nutrition and Health Sciences]
"Impact of Biotin Supplementation on Early Embryonic Development"
Total Amount Received: $20,000
Funding Period: July 1, 2005 - June 30, 2006

Jack Weber, Animal Science Department
[Gerald Duhamel, Veterinary and Biomedical Sciences]
"Genetic Basis of Resistance to Food-borne Bacterial Pathogens"
Total Amount Received: $20,000
Funding Period: July 1, 2005 - June 30, 2006

The following continuing projects have been evaluated and will continue for 2005-2006:

Paul Read, Agronomy and Horticulture Department
[Fred Baxendale, Entomology; James Hruskoci, Extension Educator; Jeff Peake, Geography/ Geology; B. Ramamurthy, Computer Science/Engineering; James Schild, Panhandle Research and Extension Center; John Watkins, Plant Pathology; Bill Zanner, School of Natural Resources]
"A Phenological Network for Ecological Viticulture"
Total Amount Received: $20,000
Funding Period: July 1, 2005 - June 30, 2006

Steve Danielson, Entomology Department
[Thomas Hunt, NEREC; James Brandle, School of Natural Resources; Erin Blankenship, Statistics]
"Synchronizing Habitat Enhancing Practices with Predator Mobility for Control of Alfalfa Insect Pests"
Total Amount Received: $19,355
Funding Period: July 1, 2005 - June 30, 2006

Pat Reece, Panhandle Research and Extension Center Center; Agronomy and Horticulture
[Ron Johnson, School of Natural Resources; Drew Tyre, School of Natural Resources; Erin Blankenship, Statistics; Ann Koehler, Panhandle Research and Extension Center, and Nebraska Game and Parks]
"Interaction Among Life-forms in Secondary Succession on Restored Wetlands"
Total Amount Received: $20,000
Funding Period: July 1, 2005 - June 30, 2006

Jim Steadman, Plant Pathology Department
[Don Rundquist, CALMIT; Anatoly Gitelson, CALMIT; Geoffrey Henebry, CALMIT; Roy French, Plant Pathology; Seven Hu, School of Natural Resources; Dale Lindgren, Agronomy and Horticulture, West Central Research and ExtensionCenter]
"Evaluating Airborne Remote Sensing and the Advanced Vegetation Index Suite (AVIS) for Crop Disease Detecting and Monitoring: The Case of Dry Bean Rust"
Total Amount Received: $20,000
Funding Period: July 1, 2005 - June 30, 2006

Tala Awada, School of Natural Resources
[Amalia Yiannaka, Agricultural Economics; Edwin Harvey, School of Natural Resources; Xinhua Zhou, School of Natural Resources; Walter Schacht, Agronomy and Horticulture; Scott Josiah, School of Natural Resources]
"Woody Species Expansion in the Nebraska Sandhills: Ecological and Socio-Economic Consequences"
Total Amount Received: $20,000
Funding Period: July 1, 2005 - June 30, 2006

Recognition of Junior Faculty for Excellence in Research

In 1991, the ARD Advisory Council established a program to recognize the research accomplishments made by junior faculty members. No more than two junior faculty are recognized each year. The recognition consists of a certificate, engraved plaque, and $3,000 for use in professional development or research-related activities.

Criteria used to evaluate nominees include scientific publication record, especially those publications resulting from research at UNL, external grant funding, and recognition by peers. A sub-committee of the ARD Advisory Council evaluates the nominations and recommends recipients to the Agricultural Research Dean.

The following faculty members were selected for recognition during the 2005-2006 academic year:

Dr. Brett White, Assistant Professor, Animal Science Department

Dr. Harshavardhan Thippareddi, Assistant Professor, Food Science and Technology Department

Congratulations to Drs. White and Thippareddi! A call for nominations is issued each year about June 1. We encourage faculty and administrators to nominate deserving junior faculty in their units.

Layman Awards

IANR faculty submitted 14 proposals for funding by the Layman Trust. A subcommittee of the ARD Advisory Council carefully evaluated each proposal and ranked the submissions in relation to quality of science and the potential impact of the proposed research. There were 14 proposals forwarded to the Vice Chancellor for Research.

The primary aim of the Layman Awards is to provide seed money to enhance the possibility of obtaining external support for the research project . Only untenured faculty or tenured faculty who have not yet received an external grant are eligible for the program.

Ten of the fourteen proposals submitted to the Vice Chancellor for Research were funded:

Paul Kononoff, Animal Science
"Feeding Corn Ethanol Co-Products to Maximize Energy Capture in Dairy Production"
Total Amount Received: $9,188
Funding Period: May 1, 2005 - April 30, 2006

Brett White, Animal Science
"Functionality of the Type II GnRH Receptor Gene in the Pig"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Donald Becker, Biochemistry
"Proline Metabolism and Redox Homeostasis in Gastrointestinal Bacterial Diseases"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Greg Bashford, Biological Systems Engineering
"Development of a Reliable Sonographic Method to Quantify Tendon and Ligament Structure in Select Symptomatic and Asymptomatic Tissues Exposed to Varying Activity Levels"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Jeyamkondan Subbiah, Biological Systems Engineering
"Hyperspectral Imaging to Predict Beef Tenderness"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Lijun Wang, Biological Systems Engineering
"Improvement of Production Efficiency and Product Quality During Thermochemical Conversion of Biomass"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Byeong-ryool Jeong, Plant Pathology
"Identification of Plant Targets for the Pseudomonas Syringae Type III Effector HopPtoD2, and Active Protein Tyrosine Phosphatase"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Yuanzheng Zhang, Plant Pathology
"Microarray Analysis of the Gene Expression Profiles of Chlorella Viruses PBCV-1 Under Oxidative Stress Environments"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

Greg Somerville, Veterinary and Biomedical Sciences
"Tricarboxylic Acid Cycle-dependent Environmental Regulation of Staphylococcus Epidermidis Polysaccharide Intercellular Adhesin Production"
Total Amount Received: $7,839
Funding Period: May 1, 2005 - April 30, 2006

Rick Funston, West Central Research and Extension Center
"Effects of Supplemental Protein During the Last Trimester of Gestation on Feed Efficiency, Pubertal Development, and Reproductive Performance of Heifer Calves"
Total Amount Received: $10,000
Funding Period: May 1, 2005 - April 30, 2006

ARD Advisory Council Election Results

The following faculty members have been elected to the ARD Advisory Council for a three-year period that began July 1, 2005.

District 1: **Richard Perrin** (Agricultural Economics Department). Representing faculty in the departments of Agricultural Economics and Food Science and Technology.

District 5: **Lance Meinke** (Entomology). Representing faculty in the departments of Entomology, Statistics and Veterinary and Biomedical Sciences.

District 6: **Jaekwon Lee** (Biochemistry). Representing faculty in the departments of Biochemistry and Plant Pathology.

Continuing ARD Advisory Council members are:

District 2: **Charles Wortmann** (Agronomy and Horticulture). Representing faculty in the Department of Agronomy and Horticulture.

District 3: **Tala Awada** (School of Natural Resources) Representing faculty in the School of Natural Resources.

District 4: **Dean Eisenhauer** (Biological Systems Engineering) and **Galen Erickson** (Animal Science). Representing faculty in the departments of Biological Systems Engineering and Animal Science.

District 7: **Yiqi Yang** (Textiles, Clothing and Design) Representing faculty in the departments of Agricultural Leadership, Education and Communication; Family and Consumer Sciences; Nutrition and Health Sciences; and Textiles, Clothing and Design.

District 8: **Dillon Feuz** (Panhandle Research and Extension Center). Representing faculty at the Northeast 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 **Ray Supalla**, **Gerald Duhamel**, and **Julie Stone** 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.

Undergraduate Honors Research Program

Funds for the FY 2005-2006 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. The following students have received funding:

Lesha Eggers (Animal Science Department) $2,500
Mentor: Dr. Merlyn Nielsen
"Role of mGPD in Response to High and Low Heat Loss Selections"

Nathan Beins (Biochemistry Department) $2,500
Mentor: Dr. Ruma Banerjee
"Characterization of the Sumoylation of C-terminal Domain Lysine Residues in Cystathionine *B*-synthase"

Nicholas Tomsen (Biological Systems Engineering) $2,500
Mentor: Dr. Gergory Bashford
"Evaluation of Ultrasonic Images for Quantification of Tendon and Ligament Structure"

William G. Whitmore Student Travel Endowment

The William G. Whitmore memorial fund was established at the University of Nebraska Foundation in 1980 as a memorial to William G. Whitmore, a member of the Board of Regents at the University of Nebraska from 1902-1916. The income from the fund supports a travel grant program for graduate students within IANR whose advisor or co-advisor has an ARD research appointment. In accordance with the donor instructions, this program will support attendance to professional society meetings in the fields of animal science, agricultural education and leadership, and veterinary and biomedical sciences. Priority for grants will be given to graduate students who are personally presenting the results of their research and/or scholarly investigations.

The Whitmore Research Travel Committee makes grants for expenses, including transportation (which is not to exceed coach class airfare), registration, lodging, meals, etc. Grants under this program are limited to a maximum of $500 per individual per fiscal year for travel during the period July1 through Dec. 31 , 2005, as follows:

Name: Blaine Jenschke
Department: Animal Science Department
Meeting: International Congress of Meat Science and Technology Meeting
Place: Baltimore, Maryland

Name: James C. MacDonald
Department: Animal Science Department
Meeting: American Society of Animal Science National Meeting
Place: Cincinnati, Ohio

Name: April Tepfer
Department: Animal Science Department
Meeting: Society for the Study of Reproduction Meeting
Place: Quebec City, Canada

Name: Michelle Baltes
Department: Animal Science Department
Meeting: Society for the Study of Reproduction Meeting
Place: Quebec City, Canada

Name: Emily McDonald
Department: Animal Science Department
Meeting: Society for the Study of Reproduction Meeting
Place: Quebec City, Canada

Name: Benjamin Bass
Department: Animal Science Department
Meeting: Society for the Study of Reproduction Meeting
Place: Quebec City, Canada

Name: Jennie James
Department: Animal Science Department
Meeting: American Meat Science Association Meeting
Place: Baltimore, Maryland

Name: Jessica Meisinger
Department: Animal Science Department
Meeting: International Congress of Meat Science and Technology Meeting
Place: Baltimore, Maryland

Name: Virgil Bremer
Department: Animal Science Department
Meeting: National American Society of Animal Science Meetings
Place: Cincinnati, Ohio

Name: Rebecca C. Bott
Department: Animal Science Department
Meeting: Society for the Study of Reproduction Meeting
Place: Quebec City, Canada

Name: Sarah Morris
Department: Animal Science Department
Meeting: National American Society of Animal Science Meetings
Place: Cincinnati, Ohio

Name: Rohana P. Dassanayake
Department: Veterinary and Biomedical Sciences Meeting
Meeting: Animal Science Meeting
Place: St. Louis, Missouri

The next call for these travel funds will be sent to the unit administrators around the second week in October 2005 for travel from Jan. 1 to June 30, 2006.

David H. & Annie E. Larrick Fund 2005

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 for travel grants to present research findings at national or regional meetings.

Name: Alejandro S. Plastina
Department: Agricultural Economics Department
Meeting: American Agricultural Economics Association Meeting
Place: Providence, Rhode Island

Name: Dimitrios Panagiotou
Department: Agricultural Economics Department
Meeting: American Agricultural Economics Association Meeting
Place: Providence, Rhode Island

Name: Keri L. Andersen
Department Agronomy and Horticulture Department
Meeting: American Society for Horticultural Science Meeting
Place: Las Vegas, Nevada

Name: Tay Za Kyaw
Department: Agronomy and Horticulture Department
Meeting: ASA-CSSA-SSA International Annual Meeting
Place: Salt Lake City, Utah

Name: Tri Setiyono
Department: Agronomy and Horticulture Department
Meeting: American Society of Agronomy Annual Meeting
Place: Salt Lake City, Utah

Name: Zhengxiang Ge
Department: Agronomy and Horticulture Department
Meeting: American Phytopathological Society Meeting
Place: Austin, Texas

Name: (Juan) Andres Quincke
Department: Agronomy and Horticulture Department
Meeting: American Society of Agronomy Annual Meeting
Place: Salt Lake City, Utah

Name: Juan Pablo Garcia
Department: Agronomy and Horticulture Department
Meeting: American Society of Agronomy and Crop Science Annual Meeting
Place: Salt Lake City, Utah

Name: Roberto Bonifoz
Department: Anthropology and Geography Department
Meeting: American Geophysical Union Fall Meeting
Place: San Francisco, California

Name: Amanda L. Fox
Department: Biological Systems Engineering Department
Meeting: American Society and Biological Engineers Meeting
Place: Tampa, Florida

Name: William K. Kissinger
Department: Biological Systems Engineering Department
Meeting: ASAE International Meeting
Place: Tampa, Florida

Name: Kari Shoef
Department: Food Science and Technology Department
Meeting: 8th Symposium on Lactic Acid Bacteria Meeting
Place: Egmond aan Zee, The Netherlands

Name: Yong Jun Goh
Department: Food Science and Technology Department
Meeting: 8th Symposium on Lactic Acid Bacteria Meeting
Place: Egmond aan Zee, The Netherlands

Name: Erica Sorensen
Department: School of Natural Resources
Meeting: Geological Society of America Meeting
Place: Salt Lake City, Utah

Name: Kelli J. Warren
Department: School of Natural Resources
Meeting: Geological Society of America Meeting
Place: Salt Lake City, Utah

ARD Web site has a "New Look"

The ARD Web site has a new look! Check it out at *http://www.ard.unl.edu.*

Also, check out the "Basic Guidelines for Commodity Board Proposals" on the ARD Web site.

Revised UNL Commodity Board Guidelines

Dan Duncan, Liaison to Commodity Boards, and Nelvie Lienemann have been working with the various commodity boards to revise the UNL basic guidelines and budget format for proposals submitted to the Commodity Boards. When a commodity board submits a Request for Proposals and lists their request for specific areas of research, these guidelines will be sent along with the RFP as a guide to PI's to include all the basic information in the proposal. To view the "Basic Guidelines for Commodity Board Proposals" go to the ARD Web site: *http://ard.unl.edu/ARDformsguidelines.html*

New or Revised Projects – March and April 2005

NEB 16-051 Starch technology: Production, characterization, and utilization
Investigator: David Jackson, Food Science and Technology
Status: Hatch project effective Jan. 1, 2005 through Dec. 31, 2009

NEB 11-128 Adaptive management of groundwater supply systems using soft computing approaches
Investigator: Wayne Woldt, Biological Science Engineering
Status: Hatch project effective Jan. 1, 2005 through Dec. 31, 2009

NEB 48-026 Site-specific nutrient management strategies for irrigated maize
Investigator: Richard Ferguson, Agronomy and Horticulture
Status: Hatch project effective Feb. 1, 2005 through Jan. 31, 2010

NEB 14-115 NC-229, Porcine reproductive and respiratory disease: Methods for the integrated control, prevention and elimination of PRRS in U.S. swine herds
Investigator: Fernando Osorio, Veterinary Basic Science
Status: Multistate project effective Oct. 1, 2004 through Sept. 30, 2009

NEB 16-083 NC-213, Management of grain quality and security for world markets
Investigator: Lloyd Bullerman, Food Science and Technology
Status: Multistate project effective Oct 1, 2003 through Sept. 30, 2008

NEB 13-173 Manage systems to increase profit potential in the cow-calf enterprise using forages and grain co-products
Investigator: Rick Rasby, Animal Science
Status: Hatch project effective Jan. 1, 2005 through Dec. 31, 2009

NEB 40-038 Decision making for wildlife under severe uncertainty
Investigator: Andrew Tyre, School of Natural Resources
Status: Hatch project effective March 1, 2005 through Feb. 28, 2010

NEB 27-012 NRSP-3, Atmospheric Deposition Program (NADP)
Investigator: Shashi Verma, School of Natural Resources
Status: Multistate project effective Oct. 1, 2003 through Sept. 30, 2008

NEB 40-039 Integrating biological diversity into managed land-use systems
Investigator: Ron Johnson, School of Natural Resources
Status: Hatch project effective May 1, 2005 through April 30, 2010

Proposals Submitted for Federal Grants – March and April 2005

The following is a listing of proposals that were submitted during March and April 2005 by faculty for federal grant programs. While not all grants will be funded, we are appreciative of the faculty members' outstanding efforts in submitting proposals to the various agencies.

Tiffany Heng-Moss, Fred Baxendale, and **Blair Siegfried** — IPM CAR (USDA) — Investigation of Chinch Bug resistance to Pyrethroids — $288,949

Robert Wright, Lance Meinke, and **Blair Siegfried** — USDA IPM — Integrating resistance management into novel IPM strategies for the Western Corn Rootworm — $1,566,416

John Lindquist, and **S. D. & K State** — USDA IPM — Early-season water deficit effects on crop-weed competition: Incorporating yield loss risk into weed management decisions — $687,831

George Meyer — USDA IPM — A machine vision method for discriminating and mapping weed populations for improved IPM — $88,450

Steve Baenziger, and **Ismail Dweikat** — USDA-International coop for Ag Research in Central Asia — Studying of genetic diversity in spring wheat associated with yields and resistance to rust diseases — $20,000

Geoffrey Henebry, and **Naikoa Aguilar** — NASA — Using changes in reflectance spatial patterns to target tropical forest stands for field surveys of indicators of ecological sustainability — $24,000

Patrick Shea, Maribeth Milner, and **Alex Martin** — USDA — Mapping pesticide leaching and runoff risk in a landscape — $183,890

Geoffrey Henebry, and **Marcela Doubkova** — NASA — Synergistic use of AMSR-E and MODIS data products to understand land surface phenology and biomass dynamics — $24,000

Donald Wilhite — USDA-CSREES — Drought Mitigation Center — $197,235

George Meyer — USDA-FAS — A machine vision method for discriminating and mapping weed populations for improved integrated pest management — $25,350

Julie Albrecht — USDA-FAS — Dietary folate and folate bioavailability from legumes — $45,000

Kyle Hoagland — USDA-CSREES — Coordination of the nation's regional water quality coordination projects and the Water Institute — $295,997

Steve Taylor — USDA-CSREES — Midwest Advanced Food Manufacturing Alliance — $488,921

Richard Ferguson, and **North Dakota Lead PI** — USDA — Nitrogen demonstrations to promote responsible fertilizer rates — $81,000

James Merchant, and **Patti Dappen** — U.S. Dept of Interior — CESU: GIS Database development for Kansas and Nebraska Reservoirs — $19,625

Susan Hefle — USDA Special — Alliance for Food Protection (NE) — $146,306

James Steadman — USDA-ARS — Resistance improvement of bean through multi-site screening and pathogen characterization — $55,000

Kyle Hoagland — USDA-Natural Resources Conservation Service — Great Plains Cooperative Ecosystem Studies Unit Program Support — $10,000

Donald Becker — NSF — Acquisition of a Beckman XL-I Analytical ultracentrifuge — $320,397

Donald Rundquist and **Anatoly Gitelson** — USDA/NIWQP — A novel approach for evaluating the effects of conservation practices and the water quality within the biophysical setting of a watershed — $659,408

Roy Spalding, Mary Exner, Richard Ferguson, Imtiyaz Khan, and **David Marx** — USDA NIWQP — Real and projected impacts of irrigated crop management practices on groundwater nitrate concentration — $654,269

Ruma Banerjee — NIH — Regulation of Homocysteine-dependent Redox Homeostasis — $286,295

Blair Siegfried — NSF — Biochemistry and genetics of Bt resistance isolated from a field population of the European Corn Borer — $60,000

Sally Mackenzie, Michael Fromm, and **Stephen Scott** — NSF — IGERT: a graduate program in plant systems biology — $2,984,785

George Graef, Tom Clemente, and **James Steadman** — USDA-ARS — Sclerotinia resistance enhanced by accumulation of QTL and transgenic approaches — $78,564

Stephen Ragsdale, Jess Miner, and **James Takacs** — NSF — Enzymology of the first step in methanopterin biosynthesis — $1,491,946

Richard Perrin — USDA-ARS — Economic evaluation of switchgrass grown as a biomass energy crop in the Northern Great Plains — $5,000

James Brandle — NRI — The modeling corn/soybean in production in sheltered fields — $4,568

Marjorie Lou — NIH — Protein-thiol mixed disulfides in cataractogenesis — $1,732,222

Grants and Contracts Received for March and April 2005

Agricultural Economics

Miscellaneous grants under $10,000 each	$5,000

Agronomy and Horticulture

Rhae Drijber — ARS	$60,000
James Specht — USDA/ARS/BA	$38,199
P.S. Baenziger — Nebraska Wheat Board	$15,000
Miscellaneous grants under $10,000 each	$63,501

Animal Science

Galen Erickson — Elanco Animal Health	$54,000
Terry Klopfenstein, David Smith, Rod Moxley, Galen Erickson, and **Susan Hinkley** — National Cattlemen's Beef Association	$42,525
Rodger Johnson — USDA/CSREES	$13,580
Miscellaneous grants under $10,000 each	$500

Biochemistry

Donald Becker — NSF	$110,000
Donald Weeks — Monsanto Co.	$2,500,000
Steve Ragsdale — National Institute of General Medical Sciences	$309,985
Vadim Gladyshev — NIH - National Cancer Institute	$252,198
Vadim Gladyshev — National Institute of General Medical Sciences	$250,819
Stephen Ragsdale — Department of Energy	$140,000

Biological Systems Engineering

Suat Irmak — Burlington Northern	$25,000

Entomology

Robert Wright and **Fred Baxendale** — Nebraska Department of Agriculture	$27,572
Miscellaneous grants under $10,000 each	$12,000

Food Science and Technology

Andrew Benson — NIH	$195,959
Miscellaneous grants under $10,000 each	$14,220

Northeast Research and Extension Center

Miscellaneous grants under $10,000 each	$1,374

Panhandle Research and Extension Center

David Baltensperger and **Drew Lyon** — Blue Sun Biodiesel	$40,442
Miscellaneous grants under $10,000 each	$24,070

Plant Pathology

James Van Etten — Department of Health and Human Services	$30,000
Loren Giesler — NC Soybean Research Program	$27,000
Miscellaneous grants under $10,000 each	$3,750

School of Natural Resources

Kyle Hoagland and **Sherilyn Fritz** — EPA	$174,000
Jim Merchant — NSF	$51,334
Jim Merchant and **Patti Dappen** — U.S. Department of Interior - Bureau of Reclamation	$19,625
Kyle Hoagland, Xun-Hong Chen, James Goeke, and **R. Caldwell** — USGS	$92,412
Jim Merchant and **Chad Boshart** — Nebraska Emergency Management Agency	$38,545
Kyle Hoagland — USDA-Natural Resources Conservation Service	$10,000
Scott Hygnstrom — Berryman Institute	$12,893
Ed Peters — Nebraska Game and Parks Commission	$22,260
Miscellaneous grants under $10,000 each	$1,214

Veterinary Basic Science

Asit Pattnaik — National Institute of Allergy and Infectious Diseases	$290,000
Miscellaneous grants under $10,000 each	$7,839

West Central Research and Extension Center

Miscellaneous grants under $10,000 each	$5,500
TOTAL	**$412,080.00**