December 2004

Agricultural Research Division News - December 2004

ARD
Agricultural Research Division News
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December 2004 **Volume 37, Number 6**

Comments from the Dean

Dear Colleagues:

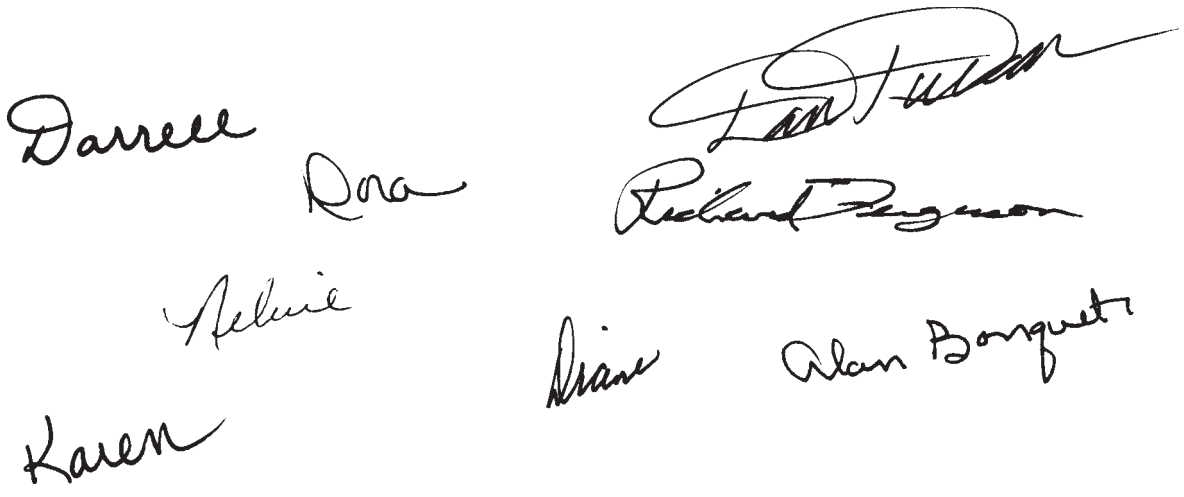
The ARD office staff extend our best wishes to you and your family for a happy holiday season and great 2005. We hope that the holiday break will be a time of rest, reflection and renewal as you prepare for a new calendar year.

Our comments in the December 2003 issue of **ARD News** expressed the hope that IANR would return to some semblance of "normal operations" during 2004. We believe that 2004 was an excellent year in many respects. Producers have realized excellent yields and increased profitability during the past year. State revenues are coming in above projection for the first time in three years and IANR has not been subjected to significant budget reductions. In addition, many our faculty achieved great success in their research projects, including the significant increases in external grant funding. We should be thankful for all of the positive things that happened during the past year.

Although IANR continues to have challenges, including a need to increase undergraduate enrollment, we are confident that ARD faculty will continue to carry out their research, teaching and extension education duties with dedication and excellence. The people of Nebraska value our programs that address their immediate problems and increase the quality of their lives, and I am certain that this support will continue into the future.

Thanks for all of the cooperation and support that each of you provided to the ARD office during 2004. We appreciate your understanding and assistance and look forward to serving you in 2005.

The ARD Office Staff:



Strategic Planning in IANR

The Institute of Agriculture and Natural Resources has a history of engaging in strategic planning efforts. The most recent of these efforts was initiated in the spring of 2002 and culminated with the adoption of a document entitled "Strategic Plan for the Institute of Agriculture and Natural Resources" by the IANR Vice Chancellor's Council in September 2004. This document is available on the IANR Web site. (*www.IANR.unl.edu*) Significant efforts were made during this most recent process to gather input from a wide variety of sources. Thirty listening sessions with over 700 constituents were conducted across the state of Nebraska. Several faculty forums were held for faculty at several locations across the state, including each research and extension center location. Throughout all of this, two significant issues arose: 1) economic development and community vitality and 2) water, both quantity and quality.

These issues are not totally new to faculty in IANR. Certainly faculty with ARD appointments have been involved in a variety of research related to water quality and water usage efficiency, and that research will be continuing. Similarly, economic development has been an important research and extension education focus for some of our faculty as well. However, given the strong expressions of concern about these two areas, we would expect to see an increasingly important emphasis on research and education in these two areas.

More recently, Chancellor Harvey Perlman has announced a process for the development of a UNL strategic plan. This process will be led by Senior Vice Chancellor for Academic Affairs Barbara Couture and IANR Vice Chancellor John Owens. The process will begin at the unit level. Unit plans will be shared with the IANR Dean's Council as part of the unit planning sessions that will begin in January 2005. The unit plans will form the basis for IANR's contribution to the UNL-wide strategic plan. Units in IANR will be asked to identify a relatively small number of high priority areas and their plans for achieving excellence in these areas. In addition, most units will be asked to identify their contributions to five campus-wide initiatives. The campus-wide initiatives are: Climate Impact Plans, Space and Equipment Priority Needs, Hiring Priorities and Rationale, Enrollment Management Plans and Diversity Plans.

It is expected that units will integrate their research, teaching, extension education and service functions in the plans that are put forward. The IANR Dean's Council will assess the contributions of each unit's plans to the core values identified for UNL and the priority areas for IANR as identified in the Strategic Plan for the Institute of Agriculture and Natural Resources dated September 2004. With appropriately developed strategic plans, we will be well-positioned to continue to have responsive and relevant research programs within IANR.

Final FY 2005 Appropriation for USDA-CSREES

Recently, Congress passed and President Bush signed the omnibus appropriations bill for FY 2005. Included in this bill was the appropriation for USDA-CSREES. All domestic spending programs were automatically reduced by 0.83 percent to assist with the budget deficit. As compared to FY 2004, there were significant increases in state-specific special grants, the National Research Initiative, Minor Crop Pest Management (IR-4), Water Quality, Food Safety and Homeland Security. All other research programs were level funded or had a slight reduction. Overall, research and higher education programs increased about $38 million and Integrated Activities increased about $4.5 million.

Program	FY2004 Enacted	FY2005 Final
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Research:		
Hatch Act	179,085	178,707
McIntire-Stennis Forestry	21,755	22,205
Evans-Allen Program	35,788	36,704
Animal Health and Disease	5,098	5,057
National Research Initiative	164,027	179,552
Special Research Grants	110,655	120,314
Improved Pest Control	13,594	15,158
Canola - Alternative Crop	752	0
Critical Ag Materials Act	1,111	0
Hesperaloe - Alter. Crop	311	1,102
1994 Institutions	1,087	1,078
Joe Skeen Rangeland	895	992
Sustainable Agriculture	12,222	12,400
Aquaculture Centers	4,000	3,968
Federal Administration	37,482	42,546
Total	588,097	619,783
Higher Education:		
Institution Challenge Grants	4,859	5,456
Graduate Fellowships	2,883	2,976
Multiculture Scholars	986	990
1890 Capacity Building	11,411	12,312
Hispanic Educ. Partnership	4,645	5,600
1994 Institutions	1,679	2,232
Alaska/Hawaii Institutions	3,131	3,482
Secondary Ag Education	880	992
Total	29,683	34,040
Integrated Activities:		
Critical Issues - Disease	444	744
Rural Develop. Centers	1,353	1,334
Water Quality	11,530	12,867
Food Safety	13,305	14,847
Pest Impact Assess.	4,028	4,166
Int. Science Education	895	1,000
Crops at Risk - FQPA	1,330	1,497
FQPA Risk Mitigation	4,345	4,889
Methyl Bromide Trans.	3,131	2,498
Organic Transition	1,889	1,889
Homeland Security	7,953	18,000
Total	50,195	63,731

Undergraduate Honors Research Program

Funds for the FY 2004-2005 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. Six proposals were received and four were funded. The following students have received funding:

Joshua Thoendel (Biochemistry Department) $2,500
Mentor: Dr. Robert Spreitzer
"Analysis of Post-Translational Modifications in Ribulose1, 5-Biphosphosphate Carboxylase/Oxygenase via Biochemical and Genetic Methods"

Chandra Ruff (Agricultural Economics Department) $2,200
Mentor: Dr. Wes Peterson
"Promoting Sustainable Development: An Analysis of the Timber Industries in Brazil and Indonesia Using the Solow Growth Model"

Jesse L. Cox (Biochemistry Department) $2,500
Mentor: Dr. Jackwon Lee
"Understanding the Function and Role of MCTR2, A Mammalian Copper Transporter"

Brady Brabec (Biochemistry Department) $2,500
Mentor: Dr. Steven Ragsdale
"Characterization of Basic Residues Near the Active Site in CO Dehydrogenase"

IANR Policy for Conducting Field Trials of Regulated Transgenic Material

Faculty interest and activity in conducting field trials with regulated transgenic material has necessitated development of a policy to guide these activities within IANR. The policy statement will help faculty understand and work through a maze of policies and regulations governing this activity.

The policy was developed by an internal committee consisting of: Anne Vidavar — chair, Tom Clemente, George Graef, Steve Baenziger, Jeff Noel, Mike Fromm and Dan Duncan. Andy Benson, Jill Hyslop-Bohling, Turan Odabasi, Judy Roots and others also provided technical comments.

The policy draws heavily from a policy developed by the National Agricultural Biotechnology Council (NABC) of which UNL is a member. The ARD policy may be modified as NABC recommendations evolve.

The policy can be accessed via the ARD Web site at: http://www.ard.unl.edu/

(Under the "For ARD Scientists and Staff" option, then the "Policies" option)

David H. and 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 travel grants to present research findings at national or regional meetings.

Name: Eric Mousel
Department: Agronomy and Horticulture Department
Meeting: International Grassland Congress Meeting
Place: Dublin, Ireland

Name: Aaron Waltz
Department: Agronomy and Horticulture Department
Meeting: Weed Science Society of America Meeting
Place: Honolulu, Hawaii

Name: Nagarama Kothapalli
Department Biochemistry Department
Meeting: Experimental Biology, American Society of Nutritional Sciences Meeting
Place: San Diego, California

Name: Jeffrey T. Krumm
Department: Entomology Department
Meeting: North Central Branch of Entomology Society of America Meeting
Place: West Lafayette, Indiana

Name: Pete Clark
Department: Entomology Department
Meeting: North Central Branch of Entomology Society of America Meeting
Place: West Lafayette, Indiana

Name: Wyatt G. Anderson
Department: Entomology Department
Meeting: Natural Turfgrass Entomology Meeting
Place: Biloxi, Mississippi

Name: Benjawan Siriwetwiwat
Department: Entomology Department
Meeting: Entomological Society of America Meeting
Place: Ottawa, Ontario, Canada

Name: Subhashinee S.K. Wijeratne
Department: Food Science and Technology
Meeting: American Oil Chemists Society Annual Meeting
Place: Salt Lake City, Utah

Name: Elliott D. Jesch
Department: Nutrition and Health Sciences
Meeting: Experimental Biology Society of Nutritional Sciences Meeting
Place: San Diego, California

Name: Gabriela Camporeale
Department: Nutrition and Health Sciences
Meeting: Experimental Biology Society of Nutritional Sciences Meeting
Place: San Diego, California

Name: Karina Lora
Department: Nutrition and Health Sciences
Meeting: Experimental Biology Society of Nutritional Sciences Meeting
Place: San Diego, California

Name: Camile Semighini
Department: Entomology
Meeting: Entomology Society of America Annual Meeting
Place: Salt Lake City, Utah

Name: Melissa Melvin
Department: School of Natural Resources
Meeting: American Meteorological Society Meeting
Place: San Diego, California

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. Nine students applied for the travel award, and these nine IANR students received William G. Whitmore Memorial Funds for travel during the period Jan. 1 through June 30, 2005, as follows:

Name: Amy Boren
Department: Agricultural Leadership, Education and Communication
Meeting: Hawaii International Conference on Education
Place: Honolulu, Hawaii

Name: Matt Luebbe
Department: Animal Science Department
Meeting: American Society of Animal Science/ Midwestern
Place: Des Moines, Iowa

Name: Sarah Morris
Department: Animal Science Department
Meeting: American Society of Animal Science/ Midwestern
Place: Des Moines, Iowa

Name: L. Aaron Stalker
Department: Animal Science Department
Meeting: Western Section/American Society of Animal Science
Place: Las Cruces, New Mexico

Name: Jennifer McDonald
Department: Animal Science Department
Meeting: American Society of Animal Science/ Midwestern
Place: Des Moines, Iowa

Name: Kimberly M. Hargrave
Department: Animal Science Department
Meeting: American Society for Nutritional Sciences
Place: San Diego, California

Name: Robin A. Ten Broeck
Department: Animal Science Department
Meeting: American Society of Animal Science/ Midwestern
Place: Des Moines, Iowa

Name: Joshua Benton
Department: Animal Science Department
Meeting: American Society of Animal Science/ Midwestern
Place: Des Moines, Iowa

Name: Chao-Wei Chen
Department: Veterinary and Biomedical Sciences
Meeting: Association for Research in Vision and Ophthalmology
Place: Fort Lauderdale, Florida

The next call for these travel funds will be sent to the unit administrators around the second week in April 2005 for travel from July 1 to Dec. 31.

New or Revised Projects October/November 2004

The following station projects were approved recently by the USDA Current Research Information System (CRIS):

NEB-16-104, HACCP assistance for small and very small processors with development and validation of safe meat chilling processes
Investigator: Harshavardhan Thippareddi (Food Science and Technology)
Status: Grant effective Sept. 15, 2004

NEB-40-030, Developing drought mitigation and preparedness technologies for the United States
Investigator: Donald Wilhite (School of Natural Resources)
Status: Special Grant effective July 1, 2004

NEB-14-133, Analyses of virulence and attenuation determinants of porcine reproductive and respiratory syndrome virus using reverse genetics approach
Investigator: Asit Pattnaik (Veterinary and Biomedical Sciences)
Status: Competitive Grant effective Sept. 1, 2004

NEB-12-305, The genetic basis of agronomic traits controlled by chromosome 3A in wheat
Investigator: P.S. Baenziger (Agronomy/Horticulture)
Status: NRI Grant effective July 15, 2004

NEB-16-105, Evaluation of natural compounds (nutraceuticals) bioavailability and antioxidant activity in Caco-2 Cell model system
Investigator: Susan Cuppett (Food Science and Technology)
Status: Hatch effective Sept. 1, 2004

NEB-15-109, Mammaslian copper transporters and systemic copper homeostasis
Investigator: Jaekwon Lee (Biochemistry)
Status: Hatch effective Oct. 1, 2004

NEB-40-035, NC-1018, Impact of climate and soils on crop selection and management
Investigator: Ken Hubbard (School of Natural Resources)
Status: Multistate project effective Oct. 1, 2004

NEB-42-030, Management causes of variation in the lean-to-finish growth process in pigs
Investigator: Michael Brumm (Northeast Research and Extension Center)
Status: Hatch effective Nov. 1, 2004

NEB-33-003, NC-1020, Beef cattle grazing systems that improve production and profitability while minimizing risk and environmental impacts
Investigator: Terry Klopfenstein (Animal Science)
Status: Multistate project effective Oct. 1, 2004

NEB-40-020, Development of optimal conjunctive use plans during irrigation seasons for Nebraska's River Valley
Investigator: Xun-Hong Chen (School of Natural Resources)
Status: State project effective Oct. 1, 2002

Proposals Submitted for Federal Grants — October-November 2004

Kyle Hoagland — Water Resources Research Initiative Academic Program Enhancement — $387,000

Brett White — NIH — Role of GnRH in early embryonic development — $142,815

Dean Eisenhauer, Bill Zanner and **Scott Hygnstrom** — USGS Competitive (Seed) Grants Program — Beaver in agricultural watersheds: Potential for mitigating degraded midwestern streams — $20,000

Stephen Ragsdale, Jess Miner and **James Takacs** — NSF — Enzymology of the first step in methanopterin biosynthesis — $1,534,689

Thomas Clemente — NSF — VCA: Development of reverse genetics tools for soybean — $5,044,502

Brian Beecher — USDA — Improving barley digestibility by modifying kernel texture — $20,000

Robert Harveson and **Mohamed F R Khan** — USDA/CSREES — Novel techniques for managing sugar beet production in fields infested with the root pathogens *A. chochlioides* and *R. Solani*. — $97,400

James Van Etten, David Dunigan, Ming Kang, Yan Zhang, and **I. Agarkova** — NIA — DNA replication and gene expression of chlorella viruses — $1,825,000

Jaekwon Lee — NIH — Mammalian copper transport, homeostasis, and its defects — $1,616,501

You Zhou and **Merlyn Nielsen** — NIH — Genes, behaviors, and aging in GR polymorphic mouse lines — $400,125

Ruma Banerjee — NIH — Cystathionine beta-synthase and hyperhomocysteinemia — $1,692,500

James Alfano — NSF — VCA functional genomics of the tomato-pseudomonas syringae interactome — $1,003,534

Blair Siegfried, Doug Sumerford and **Tom Hunt** — NRI — Characterization of field-derived Bt resistance in the European corn borer — $276,649

James Swinehart and **Ronald Goble** — NSF — Dunefield records of late quanternary climatic change, Northern China — $87,579

Drew Lyon — USDA/CSREES — Managing imazamox-resistant wheat in crop rotations for control of jointed goatgrass in the Central Great Plains — $7,500

Alexander Pavlista — USDA-CSREES — Potato varietal development — $3,000

Gerald Duhamel — NIH — Polymicrobial associations in inflammatory bowel discose — $141,768

David Jones and **Milford Hanna** — NSF — The role of nanoemulsions in enhancement of combustion characteristics and fuel physical properties of ethanol-biodiesel-diesel — $337,403

Ray Supalla — USDA-ARS — Addressing water supply and environmental needs in the North Platte Basin with markets — $72,600

Julie Stone — NRI — *In vivo* analysis of SBP protein-medicated gene expression in development and stress response — $398,309

Milford Hanna — U.S. Department of Energy — Atmospheric low temperature biomass liquefaction and biorefining model — $150,000

Gail Wicks, David Tarkalson, and **John Campbell** — North Central IPM — The influence of Roundup Ready corn and soybean on integrated pest management in crop rotations in the Central Great Plains — $121,258

James Van Etten, David Dunigan, and **B. Kronschnabel** — NIH — Center for Innovation in Membrane protein production — $761,801

Tom Powers — NSF — Species inventory of nematodes in tropical rain forests of Costa Rica — $69,448

Clinton Jones and **Yange Zhang** — NRI — Functional analysis of bICPO, the major transcriptional regulatory gene of BHV-1 — $349,500

Scott Josiah — SARE — High-value enterprises for small spaces: Accelerating commercialization and integration of woody florals and hybrid hazelnuts in sustainable systems — $149,997

Jozsef Szilagyi — National Science Foundation — Identification of the triggering mechanisms of increased flood risk in the Lower Missouri River — $59,022

Shashi Verma — U.S. Department of Energy — The 2005-06 budget of the Great Plains Regional Center of the NIGEC — $1,268,660

David Jackson — INTSORMIL — Entrepreneurship and product development in East Africa: A strategy to promote increased use of sorghum and millet — $105,000

James Swinehart — USGS — State map 2005/2006 — $140,435

James Alfano — NRI — Functional genomics of the pathogenetic and ephiphytic lifestyles of the bacterial plant pathogen Pseudomonas syringae — $129,999

Thomas Clemente — National Science Foundation — Collaborative research: elucidation of the isolavonoid phytoalexin pathway in pea — $100,095

Han Asard — NSF — Physiological functions and biochemical properties of plant cytochromes — $386,084

Han Asard — NIH — Characterization of ascorbate-dependent cytochromes b561 — $876,000

Grants and Contracts Received October-November, 2004

Agricultural Economics
- **Ray Supalla** — USDA-ARS — $33,600

Agronomy/Horticulture
- **Dennis Diestler** — NSF — 300,000
- **Alexander Martin** — USDA-ARS-NPA — 15,000
- **Rhae Drijber** — USDA-ARS — 20,000
- **Susan Tunnell** — U.S. Environmental Protection Agency — 81,022
- **Lowell Moser** — Agronomy Discretionary — 7,389
- **Walter Schacht** — Ralph Bainbridge Fund — 4,775
- **Walter Schacht** — Sampson Range Endowment — 900
- **George Graef** and **Jim Specht** — Nebraska Soybean Board — 147,360
- **George Graef** and **Jim Specht** — Nebraska Soybean Board — 39,500
- **Achim Dobermann** — Nebraska Soybean Board — 28,640
- **Brian Beecher** — USDA — 20,000
- **Lenis Nelson** — Nebraska Soybean Board — 4,000
- **George Graef, Loren Giesler** and **Jim Specht** — Nebraska Soybean Board — 41,640

Animal Science
- **Andrew Cupp** — Branham Endowment — 3,000
- **Rodger Johnson** and **Phil Miller** — National Pork Producers Association — 19,000
- **Daniel Pomp** — NIH/NCI — 120,000
- **Daniel Pomp** — Biotechnology Research and Development Corp. — 47,710
- **Don Beermann** and **Susan Fritz** — Nebraska Beef Council — 2,000

Agricultural Research Division
- **Dan Duncan** — Agro-Environmental Trail Coalition US EPA — **30,791**

Biochemistry
- **Vadim Gladyshev** — NIH — 14,895
- **Melanie Simpson** — NIH — 209,090
- **Donald Becker** — Branham Endowment — 3,000
- **Don Weeks** — Consortium for Plant Biotechnology Research, Inc. — 116,000

Center of Biotechnology
- **Thomas Clemente** — United Soybean Board — 100,300

Biological Systems Engineering
- **Curt Weller, T. Carr, V. Schlegel, S. Cuppett, K. Hwang** and **L. Wang** — USDA/CSREES — 338,000
- **David Billesbach** — U.S. Department of Energy — 52,617

Entomology
- **John Foster** — Department of Agriculture — 25,000
- **Lance Meinke** — Syngenta Seeds, Inc. — 15,000
- **Robert Wright** — Syngenta Seeds, Inc. — 24,000

Food Science and Technology
- **Andrew Benson** — U.S. Army Medical Research — 100,000

Institute of Agriculture and Natural Resources
- **John Owens** — Cyril Bish Professorship — 7,500

Meat Animal Research Center
- **Darrell Nelson** — USDA-ARS-NPA — 300,000

Northeast Research and Extension Center
- **Thomas Hunt** and **Leon Higley** — Nebraska Soybean Board — 29,405
- **Thomas Hunt** and **Stevan Knezevic** — Nebraska Soybean Board — 13,945
- **Thomas Hunt** — Syngenta Seeds Inc. — 6,000
- **Stevan Knezevic, Alex Martin** and **Bob Klein** — Nebraska Soybean Board — 34,635

Panhandle Research and Extension Center
- **David Baltensperger** — USDA — 8,000
- **Alexander Pavlista** — Subcontract with University of Minnesota — USDA-CSREES — 3,000
- **Drew Lyon** — USDA/CSREES — 7,500

Plant Pathology
- **Anne Vidaver** — R.W. Goss Memorial Scholarship — 2,800
- **Martin Dickman with Massachusetts Institute of Technology** — NRI — 850,000
- **Jennifer Chaky** — Nebraska Department of Agriculture — 4,460
- **Loren Giesler** and **Tom Hunt** — Nebraska Soybean Board — 18,858
- **Loren Giesler** and **George Graef** — Nebraska Soybean Board — 39,206
- **Tom Powers** — NSF — 69,448
- **Gary Yuen, Loren Giesler** and **Anne Vidaver** — Nebraska Soybean Board — 40,220

Plant Science Initiative
- **Tom Clemente** and **George Graef** — Nebraska Soybean Board — 49,060

School of Natural Resources
- **Sunil Narumalani** — Nebraska Emergency Management Agency (NEMA) — 31,900
- **Jim Merchant and Chad Boshart** — Nebraska Emergency Management Agency — 35,414
- **Craig Allen** — U.S. Geological Survey/BRD — 44,000
- **Xun-Hong Chen** — Central Platte Natural Resources District — 48,150
- **Geoffrey Henebry** and **Kirsten DeBeurs** — NASA — 24,000
- **Craig Allen** — James S. McDonnell Foundation — 83,810
- **Robert Kuzelka** — EPA — 31,562
- **Don Rundquist** — NASA — 132,638
- **Kenneth Hubbard** — U.S. Department of Interior — 30,000
- **Anatoly Gitelson** — NASA — 24,000
- **Donald Wilhite** — USDA/CSREES — 41,667
- **Ronald Rundquist** — NASA — 7,500
- **Sunil Narumalani** — Nebraska Army National Guard — 59,038
- **Scott Hygnstrom** — USDA-APHIS — 105,930
- **Kyle Hoagland** — CESU/National Park Service — 10,000
- **Don Wilhite** — USDA/CSREES — 217,593
- **Xun-Hong Chen** — Upper Big Blue Natural Resources District — 75,000
- **Shashi Verma** — U.S. Department of Energy — 300,000

Statistics
- **Kent Eskridge** — State of Nebraska, Department of Health and Human Services — 16,785

Veterinary and Biomedical Sciences
- **Raul Barletta** — Subcontract from University of Minnesota — NRI — 51,122
- **Clayton Kelling** — Veterinary Science Virology — 2,900
- **Fernando Osorio and Asit Pattnaik** — National Pork Board — 145,000
- **Fernando Osorio** — National Pork Board — 42,000
- **Asit Pattnaik** and **Fernando Osorio** — NRI — 320,000

West Central Research and Extension Center
- **Jose Payero** — Anna Elliott — 3,000
- **Jose Payero** — U.S. Department of Interior — 10,000
- **Roger Wilson, Richard Clark** and **Doug Jose** — Nebraska Soybean Board — 10,572

TOTAL — **5,258,525**