

8-1998

ARD News August 1998

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

 Part of the [Agriculture Commons](#)

"ARD News August 1998" (1998). *Agricultural Research Division News & Annual Reports*. 57.
<http://digitalcommons.unl.edu/ardnews/57>

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.



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

August 1998

Volume 32, Number 7

Comments from the Dean

Dear Colleagues:

The Agricultural Research, Extension and Education Reform Act of 1998 (S.1150) was signed by the President in late June. This legislation will govern our research activities carried out as a part of the federal-state partnership during the next five years. We now are required to obtain extensive stakeholder input into our priorities for use of Hatch and Regional Research funds. ARD also will be required to submit a plan of work detailing our use of Hatch and Regional Research funds for the upcoming fiscal year and we will need to have our peer review process for Hatch and Regional Research projects approved by CSREES. Our Regional Research projects will need to be multidisciplinary in addition to being multistate.

The legislation provided \$120 million per year for five years in the form of the Initiative for Future Agriculture and Food Systems in the mandatory portion of the USDA budget. The new initiative is focused on agricultural genomics, food safety and human nutrition, new and alternative uses of agricultural products, agricultural biotechnology, natural resource management including precision agriculture, and small and family farm efficiency and profitability. We anticipate that CSREES will issue a RFP for the new initiative in September. The legislation also increased the allowable indirect cost rate on NRI grants from 14 to 19 percent. The Fund for Rural America also was extended to FY 2002 at \$60 million per year.

The FY 1999 appropriation for CSREES research contains both positive and negative aspects (see article in this issue). The Senate version increases base programs by 3 percent, decreases the NRI by about \$2 million, and level funds most of the other programs. The House version level funds most programs. Unfortunately, the House version also deletes funding for the Fund for Rural America and the Initiative for Future

Agriculture and Food Systems. The Senate version deletes funding for the Fund for Rural America but is silent in regard to the new initiative. A conference committee will resolve differences in the two versions of the appropriations bill. It is likely the Fund for Rural America is dead for FY 1999 but the new initiative should be funded at somewhere between \$60 and \$120 million. Vice Chancellor Omtvedt, Dean Bolen and I continue to work with the Nebraska congressional delegation on the CSREES appropriation for FY 1999.

*Darrell W. Nelson
Dean and Director*

Additional Opportunities for the ARD Undergraduate Honors Student Research Program

Not all of the available funding was committed during the competition for the ARD Undergraduate Honors Student Research Program conducted this past spring. Additional proposals for the program are being sought during the early part of the fall semester. Proposals are due in the ARD Office no later than **Oct. 9, 1998**. The purpose of the program is to allow outstanding University Honors Program students to conduct research under the direction of a faculty mentor. The ARD Undergraduate Honors Student Research Program is open to junior and senior Honors Program participants proposing to work with a faculty member who has an ARD appointment. For successful applicants, ARD will provide up to \$2,500 per student for a maximum of 12 months. Awardees will be selected by a subcommittee of the ARD Advisory Council based on the quality of the proposal. Proposals shall be authored by the student with guidance from the proposed project mentor.

Guidelines for the program may be obtained from unit administrators or the ARD Office. It is important



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.



that all elements listed in the guidelines be included in the project proposal including the amount of the match provided by the mentor or the mentor's unit. An independent study contract completed by the student and the mentor also must be submitted with the proposal.

Widaman Trust Distinguished Graduate Assistant Award

.....

The Widaman Trust was established in 1975 through a generous gift provided to the University of Nebraska Foundation by Ms. Blanch Widaman. Ms. Widaman asked that the income from the trust be used by UNL for basic research in agriculture and that the funds support people rather than purchase supplies and/or equipment. She suggested that the money be used for scholarships or fellowships for graduate students conducting basic research in agriculture.

The criteria established for the Widaman Trust Distinguished Graduate Assistant Award specifies that only 5 percent of the graduate students in a department can receive the recognition and that the awardees must demonstrate outstanding scholarship and excellence in research. We congratulate the following graduate students for receiving the Widaman Trust Distinguished Graduate Student Award for 1998-1999:

- Name:** Martin M. Williams II
Thesis area: Weed Science
Department: Agronomy Department
Advisor: David A. Mortensen
- Name:** Mine Aslan
Thesis area: Soils
Department: Agronomy Department
Advisors: William L. Powers & Rhea Drijber
- Name:** Galen E. Erickson
Thesis area: Ruminant Nutrition
Department: Animal Science Department
Advisor: Terry Klopfenstein
- Name:** Curtis L. Novak
Thesis area: Poultry Nutrition
Department: Animal Science Department
Advisor: Sheila E. Scheideler
- Name:** William W. Hoback
Thesis area: Entomology
Department: Entomology Department
Advisors: Leon Higley & David Stanley
- Name:** Kevin W. Frank
Thesis area: Turfgrass Physiology & Management
Department: Horticulture Department
Advisors: Roch Gaussoin & Terry Riordan
- Name:** Zhongge Zhang
Thesis area: Biological Control of Turfgrass Disease
Department: Plant Pathology
Advisor: Gary Y. Yuen

- Name:** Qingwu Xue
Thesis area: Agricultural Meteorology
Department: School of Natural Resource Sciences
Advisor: Albert Weiss

- Name:** Christina L. Topliff
Thesis area: Virology
Department: Veterinary & Biomedical Sciences
Advisor: Clayton L. Kelling

Hardin Distinguished Graduate Fellowship for 1998-1999

.....

The recipient of the Hardin Distinguished Graduate Fellowship for 1998-1999 is **Fikru Haile** from the Entomology Department. The fellowship is made possible by an endowment established at the University of Nebraska Foundation by former University of Nebraska Chancellor Clifford Hardin to support outstanding graduate students doing research in plant physiology.

Fikru Haile is completing his Ph.D. research on the physiology of plant tolerance to insect injury. His research focuses on plant physiology associated with insects as stressors. This research is extremely important in understanding plant-insect interactions and mechanisms that contribute to plant resistance to biotic stress. His thesis and non-thesis research activities will produce at least six refereed journals. Dr. Leon Higley is his advisor.

ARD Advisory Council Election Results

.....

As a result of recent elections, the following faculty members were selected to serve on the ARD Advisory Council for a three-year period ending June 30, 2001.

- District 3:** **Tim Arkebauer** (Agronomy)
Representing faculty in the Agronomy Department
 - District 4:** **James Brandle** (School of Natural Resource Sciences)
Representing faculty in the School of Natural Resource Sciences
 - District 9:** **Don Adams** (West Central R & E Center)
Representing faculty in the Panhandle R & E Center and West Central R & E Center
- Continuing ARD Advisory Council members are:
- District 1:** **Wes Peterson** (Agricultural Economics)
Representing faculty in the Agricultural Economics and Food Science & Technology Departments
 - District 2:** **Tom Franti** (Biological Systems Engineering)
Representing faculty in the Biological Systems Engineering Department, Northeast R & E Center, and South Central R & E Center

- District 5: Richard Grant** (Animal Science)
Representing faculty in the Animal Science Department
- District 6: Rod Moxley** (Veterinary & Biomedical Sciences)
Representing faculty in Biometry, Horticulture, Entomology and Veterinary & Biomedical Sciences Departments.
- District 7: Gary Yuen** (Plant Pathology)
Representing faculty in the Biochemistry and Plant Pathology Departments.
- District 8: Lois Scheyer** (Textiles, Clothing and Design)
Representing faculty in the Agricultural Leadership, Education and Communications; Family and Consumer Sciences; Nutritional Science and Dietetics; and Textiles, Clothing and Design Departments.

Wes Peterson will serve as Chair and Rod Moxley as Secretary of the ARD Advisory Council during fiscal year 1999. Faculty are encouraged to bring research-related issues to your representative for discussion and resolution at council meetings.

ARD expresses appreciation to Gary Hein, Elizabeth Walter-Shea and Dan Walters for their dedicated support of the ARD Advisory Council during the past three years. We wish them continued success in their research programs.

Proposals Submitted for Federal Grants

The following is a list of proposals submitted after June 1998 by faculty for federal grant programs. While not all grants will be funded, we appreciate faculty members' efforts in submitting proposals to the various agencies.

Michael Zeece, John Markwell, Gautam Sarath and Robert Bush — NIH, Mapping and Mutagenesis of IgE Epitopes in the Soy Allergen Gly m 1, \$333,749

F. Edwin Harvey — U.S. Environmental Protection Agency, Hydrogeology of Saline Wetlands in Eastern Nebraska, \$36,310

Vadim Gladyshev — NIH, Selenoprotein as a Target for Cancer Prevention, \$694,031

Kyle Hoagland — U.S. Fish & Wildlife Service, Landscape Ecological Dynamics and Conservation of Riverine Ecotone in the Central Platte River Valley, \$21,965

James VanEtten — NIH, DNA Replication and Gene Expression of Chlorella Viruses, \$934,350

Rhonda Brand — NIH, Use of Naturally Occurring Oils for Reducing Dermatitis in Cutting Operations, \$748,430

Stephen W. Ragsdale — NIH, Biochemistry of the Reductive Acetyl-CoA Pathway, \$1,555,839

Susan Cuppett — USDA, through Iowa State University, Legume Phytochemicals: Improving Utilization

Sunil Narumaiani, Donald Rundquist, and James Merchant — NASA, A NASA Regional Earth Science Applications Center for the Great Plains, \$2,069,653

Robert J. Spreitzer — NSF, Rubisco Nuclear Mutants, \$339,942

Rhonda Brand — NSF, A Novel System to Determine the Biological Impact of Pesticide Combinations, \$200,029

K. Arumuganathan and Kulvinder S. Gill — NSF, Flow-Sorted Individual Class of Maize Chromosomes for Functional Genomics, \$783,023

Raymond J. Supalla and John Allen — U.S. Environmental Protection Agency, A Game Theoretic Approach to Management of the Middle Platte Ecosystem, \$275,444



Grants and Contracts Received June and July, 1998

Agricultural Economics	
Perrin, Richard — USDA/CSREES	75,000
Agricultural Research Development Center	
Duncan, Dan — Barta Bros Fund	30,000
Agronomy	
Andrews, Dave — Mahyco	30,000
Miscellaneous grants under \$10,000 each	33,890
Animal Science	
Kinder, James — Colorado State University	74,460
Miner, Jess L. — EPSCOR	20,000
Miscellaneous grants under \$10,000 each	36,661
Biochemistry	
Banerjee, Ruma — NIH	209,616
Chollet, Raymond — NSF	420,000
Gladyshev, Vadim — NATO	26,400
Ragsdale, Stephen — USDOE	106,000
Biological Systems Engineering	
Miscellaneous grants under \$10,000 each	10,000
Entomology	
Meinke, Lance — USDA/ARS	60,000
Miscellaneous grants under \$10,000 each	68,863
Food Science & Technology	
Hefle, Susan — International Life Sciences Inst.	75,000
Meagher, Michael — Anonymous Donor	747,842
Taylor, Stephen — USDA/CSREES	395,000
Miscellaneous grants under \$10,000 each	125,183
Horticulture	
Coyne, Dermot — Seminis Seeds, Inc.	20,000
Read, Paul E. — Small Fruit Research Fund	29,500
Riordan, Terry — US Golf Association	75,000
Riordan, Terry — Crenshaw & Douget Turf	30,000
Miscellaneous grants under \$10,000 each	25,422
Northeast Research & Extension Center	
Brumm, Michael — National Pork Producers	18,452
Miscellaneous grants under \$10,000 each	18,500
Panhandle Research & Extension Center	
Miscellaneous grants under \$10,000 each	69,075

Plant Pathology	
Miscellaneous grants under \$10,000 each	22,000
School of Natural Resource Sciences	
Blad, Blaine — USDA/NRCS	25,000
Hergenrader, Gary — USDA/FS	30,000
Kamble, Shripat — USDA/CSREES	22,527
Volk, Bob — DOI-GS	20,000
Wilhite, Donald — USDA/CSREES	186,955
Miscellaneous grants under \$10,000 each	10,085
South Central Research & Extension Center	
Benham, Brian — K State University	145,357
Stack, James — USDA/CSREES	39,000
Miscellaneous grants under \$10,000 each	33,900
Veterinary & Biomedical Sciences	
Cirillo, Jeffrey — NIH	95,548
Cirillo, Jeffrey — American Lung Association	12,452
Miscellaneous grants under \$10,000 each	16,928
West Central Research & Extension Center	
Hergert, Gary — Anna H. Elliott	17,690
Hergert, Gary — Groundwater Quality	25,000
Miscellaneous grants under \$10,000 each	10,903
Grand Total	3,543,209

New or Revised Projects

.....

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

NEB-10-106 (Agricultural Economics) Private Strategies, Public Policies and Food System Performance
Investigator(s): Azzeddine M. Azzam and Jeffrey S. Royer
Status: Revised Hatch project that contributes to NE-165 effective Oct. 1, 1996

NEB-12-055 (Agronomy) Genetics, Breeding, and Evaluation of Common Wheat and Triticale for Nebraska
Investigator(s): P. Stephen Baenziger, David R. Shelton and C. James Peterson
Status: Revised Hatch project effective May 1, 1998

NEB-12-266 (Agronomy) Effective Use of Carbon and Nutrients in Manure Using Site-Specific Application
Investigator(s): Bahman Eghball, James S. Schepers, M. F. Vigil, Charles A. Shapiro and Richard B. Ferguson
Status: New Competitive Grant effective April 1, 1998

NEB-12-267 (Agronomy) Ecophysiology of Corn Velvetleaf Competition
Investigator: John L. Lindquist
Status: New Hatch project effective June 1, 1998

NEB-13-129 (Animal Science) Positional and Functional Identification of Economically Important Genes in the Pig
Investigator: Daniel Pomp
Status: Revised Hatch project effective Oct. 1, 1997 that contributes to NC-210

NEB-13-141 (Animal Science) Nutritional Management Strategies for Sustainable Feedlot Cattle Production
Investigator(s): Todd Milton, Terry Klopfenstein, and Terry Mader
Status: New Hatch project effective May 5, 1998

NEB-16-079 (Food Science & Technology) Mapping & Site-Directed Mutagenesis of IGE Epitopes in a Food Allergen from Soybean (GLY M BD 30K)
Investigator(s): Michael G. Zeece, John P. Markwell, Gautam Sarath and Dwane Wylie
Status: New State project effective July 1, 1998

NEB-24-034 (Agricultural Leadership, Education, and Communication) Predictors of Leader and Follower Behavior, and the Impact of Leadership Development
Investigator(s): John E. Barbuto Jr. and Susan Fritz
Status: New State project effective June 10, 1998

NEB-44-055 (Panhandle Research & Extension Center) Intensification of Winter Wheat-Based Dryland Cropping Systems for Western Nebraska
Investigator: Drew J. Lyon
Status: New Hatch project effective June 10, 1998

NEB-48-025 (South Central Research & Extension Center) Subsurface Drip Irrigation: Integrated Water & Nitrogen BMPS for Corn & Assessing Irrigation Uniformity
Investigator: Brian L. Benham
Status: New Hatch project effective May 15, 1998

Nancy Lewis Selected for Leadership Development Program

.....

Dr. Nancy Lewis, Associate Professor of Nutritional Science and Dietetics, has been selected to participate in the 1998-99 ESCOP/ACOP Leadership Development Program. Nancy will complete a three-phase program that features a six-day "introduction to leadership" workshop in Indianapolis; an administrative internship in ARD from July 1, 1998 to June 30, 1999; and a capstone seminar with federal agency leaders, lobbyists and congressional staff personnel in Washington, D.C.

While serving as an administrative intern, Nancy will participate in ARD Staff Meetings, lead project reviews, undertake special projects, interview senior administrators and study research administration. We are pleased that Dr. Lewis will be assisting ARD staff by spending about 10 percent of her time on intern activities during the next year.

Nancy replaces Dr. Shripat Kamble who finished his formal internship on June 30, 1998. Shripat continues to work on a special project that is designed to evaluate the effectiveness of two ARD internal grant programs. We wish Shripat the continued success as he returns to full-time extension and research activities.

Diane says

The sturdy oak is just an acorn that held its ground!

Additional Guidance Regarding Tuition Remission on USDA-Funded Graduate Research Assistantships

The June issue of ARD News featured an article regarding payment of tuition remission costs for graduate research assistants (GRAs) funded by USDA appropriations. As you may recall, federal law prohibits payment of tuition remissions costs from most types of USDA funds. We have discovered that grants from the National Research Initiative Competitive Grants Program (NRICGP) may pay tuition remission on GRAs. Thus, the budgets of NRICGP grants should contain 23 percent fringe benefits on GRA stipends. This level of funding will be adequate for tuition remission charges. Tuition remission cannot be charged to any other source of USDA funds including ARS Research Support Agreements or Regional Research allocations.

A few GRA stipends are paid from USDA grants provided to interdisciplinary centers. Because interdisciplinary centers do not have other sources of funds to pay tuition remission costs, these costs should be paid by the department in which the student is earning their degree. Interdisciplinary center directors should coordinate with appropriate department heads to ensure that the tuition remission costs are being covered from departmental funds.

NUPROF Program

If you are in mid-career and looking at your future in upcoming years consider NUPROF—a systematic, life/career planning program available in the Institute of Agriculture and Natural Resources. Faculty members in any of the divisions, or in the counties, with six years of experience or more or have tenure are eligible to apply. NUPROF is appropriate for anyone who is “at a crossroads,” thinking about a possible new professional direction, or those who want to step back and seriously assess their careers.

Those who decide to apply and enter NUPROF are expected to attend the Faculty Development Institute at The Barn Bed and Breakfast Inn in Valley Falls, Kansas, Sept. 30-Oct. 2, 1998. After being accepted into NUPROF and attending the Faculty Development Institute, participants become eligible for up to \$1,500.00 to develop a growth plan.

Those interested in learning more about NUPROF, or applying for admission to the NUPROF Class of 1998-1999 can either attend one of the NUPROF Orientations scheduled for Aug. 19-20 from noon to 1:15 p.m. in the East Campus Union, or contact Dan Wheeler or Cheryl Ross in the Office of Professional and Organizational Development (402) 472-5558.

Cooperative State Research, Education and Extension Service Budget for FY 1999

Both the House and Senate have acted on the CSREES appropriation for FY1999. The funds provided in the various programs are given in the table below. The differences between the House and Senate version will be worked out in the Conference Committee that will be meeting during August. We hope the Conference Committee report will be approved by Congress and signed by the President before Sept. 1.

Research Program	FY 1998 Approp.	House Approp.	Senate Approp.
----- thousands of \$ -----			
Base Programs:			
Hatch Act	168,734	168,734	173,794
McIntire-Stennis	20,497	20,497	21,112
Animal Health	4,775	4,775	4,918
Special Research Grants	51,495	49,273	56,400
National Research Initiative	97,200	99,550	95,200
Other Programs:			
Improved Pest Control	15,048	15,048	15,048
Aquaculture Centers	4,000	3,880	4,000
Sustainable Agriculture	8,000	8,000	8,000
Alternative Crops	650	700	550
Critical Ag Materials	550	0	600
Federal Administration	11,226	10,733	10,247

The House deleted funding for the Fund for Rural America and the Initiative for Future Agriculture and Food Systems in the FY 1999 Appropriations Bill. The Senate deleted funding for the Fund for Rural America in their version of the Bill.

Fund for Rural America Update

Although the Fund for Rural America is funded in the mandatory portion of the USDA budget, Congress has the power to delete funding during each appropriation cycle. The Fund for Rural America is unpopular with Congress and consequentially funding was deleted by both the House and Senate during the FY 1999 appropriation process. The funds will be available each federal fiscal year and the program will continue unless Congress specifically deletes funding each year.

In the first round of Fund for Rural America competition, 115 standard grants were funded from 1,100 proposals that were submitted to CSREES. Most of these grants received 50 to 75 percent of the requested funds for a 3- to 4-year period. Eleven full proposals were submitted to the center grant program. Three or four of these proposals were slated to receive funding from the FY 1999 allocation of funds. Unfortunately, the funding stream has been stopped by Congress and no center grants will be awarded on Oct. 1, 1998. The future of the Fund for Rural America is in doubt. We will keep you posted on further developments.

Regional Research Programs

Agricultural Research Division faculty participate in a number of regional research activities organized under the Regional Research Program of the Federal Hatch Act (P.L.84-352). It involves cooperative research between two or more State Agricultural Experiment Stations (SAES) and is supported from the Regional Research Funds (RRF), part of the federal appropriations authorized by the Hatch Act. There are federal guidelines for the administration of RRF and within the flexibility of those guidelines, each of the four regional associations of SAES directors has developed regional research operating structures. ARD faculty participate in committees and projects organized under the guidelines of the North Central Regional Association (NCRA) of SAES Directors as well as in the committees of projects organized under the other three regions: Northeast, Southern, and Western. The RRF are used to conduct research that best serve the region's research priorities. Research done under regional projects is planned and conducted as a cooperative effort in which the participating scientists are mutually responsible for accomplishing the objectives.

Cooperative regional research:

- (1) brings together competent scientific talent from the SAESs, USDA, and other institutions and government agencies to work on a problem.
- (2) resolves, by team effort, problems too costly in manpower and/or funds for a single SAES to attack.
- (3) facilitates the interpretation and application of research results for the solution of a problem.
- (4) brings about stimulation and exchange of ideas of research approaches by scientist consulting and working together.

ARD faculty participate in several different types of research activity. One component of the regional research program is the funded projects. In the North Central Region, these are referred to as NC committees and the associated projects as NC projects. North Central Regional Research priorities were developed by NCRA Directors and North Central Administrative (NCA) Committees in 1995. These priorities are used to evaluate, review and determine which projects should be approved to share in the Regional Research Funding as allocated through each individual state budget process. Support for contributing research by participants is determined by each state according to their own policies and flexibility. Currently, ARD faculty participate in about 50 of the NC type projects.

A second type of North Central committee is the NCR committee. In other regions these may be known as coordinating committees and information exchange groups. These committees coordinate research activities and exchange information on focused areas of regional research. They may also prepare NC project proposals, identify areas of research needs, plan joint activities and prepare publications. The only RRF allocated in support of NCR committees is for travel of official institutional representatives to attend the annual meetings. ARD faculty participate in about 50 of the NCR-type coordinating committees in the four regions.

NCA committees are made up of unit administrators in each of the major discipline areas. The NCA committees advise SAES Directors on regional research priorities, review ongoing and needed regional research, review proposals for new and revised regional projects committees, and advise directors on overall quality control in the program of regional research. Department heads and chairs from ARD participate in 15 NCA committees.

Two additional types of committees are the NCS and NCT committees. NCS committees provide advice to the directors of the policies and procedures in special areas of expertise. NCT committees are for short periods, normally one to two years, to provide review and recommendations regarding proposed NC committees or projects. When appropriate, they may actually develop regional project outlines if determination is made that a regional project approach is needed. ARD faculty participate in only about one to three NCS and NCT committees at any point in time.

The North Central guidelines include several criteria for evaluation of new and revised NC project proposals. These include requirements that the research be:

- problem solving
- high priority
- multidisciplinary
- multistate

and will:

- assure accountability
- have direct impact/outcome to society/people
- leverage other support
- include provisions for information and technology transfer

Fundamental or basic research may be a part of the regional research program, but must be directed towards a foundation of knowledge that ultimately will aid in solving high priority problems.

The NCA committees have the most significant role in reviewing new and revised project proposals, as well as reviewing projects by committees at midterm of the project period. This is essentially the same for all regions, with the critical review occurring at the regional level, rather than the national level as in former years.

The University of Nebraska Agricultural Research Division believes strongly in the regional research approach and encourages active participation by faculty in appropriate regional projects and committees. Regional research funding is limited and has not seen increases in several years.

State priorities are considered heavily in determining which projects and committees will be selected for UNL participation. There is a strong perception among SAES directors, both in the North Central Region and in the other regions, that the Regional Research Program has had major impacts and successes over the years and in future years will be used as a positive example for accountability purposes as how federal funding has enhanced the research productivity through cooperative efforts.