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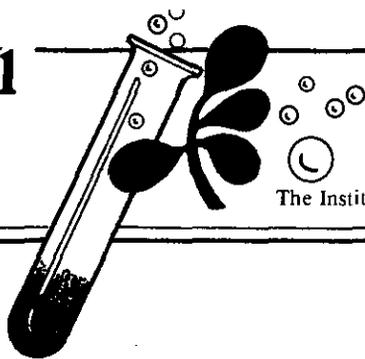
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DECEMBER 1984

VOL 18 NO 6



The Agricultural Research Division office staff — Irv Omtvedt, Dale Vanderholm, Warren Sabs, Diane Mohrhoff, Jan Radenslaben, Cindy Farmer, Linda Arnold — wishes each of you a Merry Christmas and Happy New Year.

JOINT COUNTY PRIORITIES

The top nine priorities for research, extension and higher education prepared by the **Joint Council on Food and Agricultural Sciences** for fiscal year 1986 are:

1. Basic Biotechnology Research
2. Sustaining Soil Productivity
3. Scientific Expertise Development
4. Water Management
5. Plant and Animal Efficiency, Including Protection
6. Human Nutrition
7. Communications Technology/Information Systems
- (tie) 8. Agricultural Policy Analysis/Market Development
- (tie) 8. Forest, Range, and Pastureland Productivity Enhancement, Including Multiple Use

This report emphasizes the need to maintain current science and education activities while directing primary attention to these nine priorities. The Council points out that our agricultural system must also meet domestic and foreign export needs for food, fiber and forestry products, as well as respond to unpredictable problems that occur.

Faculty are encouraged to review this report that is available in most Departmental offices or in the Office of the Dean and Director.

PRODUCTION RESEARCH PERSPECTIVE

Too much emphasis on production research is frequently blamed for farm surpluses and low market prices. Although increased research emphasis on product development, improved processing technology, marketing and packaging is urgently needed, the consumer stands the most to lose if this occurs at the expense of research on production efficiency.

American agriculture represents one of the greatest success stories in history. Advances in production efficiency are one of the primary reasons why U. S. food remains a real bargain today. Rapid adoption of this technology has given American agriculture a competitive edge in the world market. If the United States is to maintain this competitive edge, research on achieving greater production efficiency is essential.

Our agricultural research programs must address problems facing American agriculture and provide an expanded knowledge base to meet the challenges of the future. Our research efforts must continually evolve and remain at the cutting edge of science with consideration for potential return on investment. The Nebraska Agricultural Research Division program must be clearly focused, futuristic, dynamic, aggressive, and well coordinated both on a local and national basis.

— Irv Omtvedt

WATER RESOURCES CENTER PROPOSALS

The IANR Water Resources Center is accepting proposals from faculty interested in doing research addressing important state or regional water problems. The proposals need to be submitted to **Bill Powers**, 310 Ag Hall, before January 10, 1985 to be considered.

Proposals should be in the range of \$10,000 to \$20,000 per year and selections will be made by February 15, 1985. The program is being administered by the U. S. Geological Survey and proposal guidelines can be obtained in IANR departmental offices or from the Nebraska Water Resources Center Director's Office.



NEW FACULTY APPOINTMENTS

The University of Nebraska Board of Regents approved the appointments of the following new faculty in the Agricultural Research Division at their November meeting:

Jeffrey F. Keown, Associate Professor of Animal Science; former Cole extension dairy position; 70 percent extension and 30 percent research; effective January 7, 1985; previous position — Cornell University.

Lance J. Meinke, Assistant Professor of Entomology; former Ball research position; 80 percent research and 20 percent teaching; effective December 1, 1984; previous position — North Carolina State University.

Charles J. Peterson, Adjunct Assistant Professor of Agronomy; Research Agronomist with USDA-ARS; effective December 1, 1984; previous position — University of Nebraska Agronomy Department.

Daniel J. Walters, Assistant Professor of Agronomy; former Peterson soils position; 65 percent teaching and 35 percent research; effective November 5, 1984; previous position — University of Minnesota, Waseca.

BIOTECHNOLOGY PROGRESS REPORT

The Agricultural Committee on Biotechnology released Progress Report III "Emerging Biotechnologies in Agriculture: Issues and Policies" last month. This "Gold Bullet Report" includes chapters on:

- Legal Framework for Scientific Inquiry at Public Universities.
- Guidelines for Development of a University/Industry Research Contract.
- Effects of Biotechnology Developments on Society.
- Legal Challenge to the Deliberate Release of Genetically Engineered Organisms.
- National Biological Impact Assessment Program.
- NSF and NIH Support to State Agricultural Experiment Station Scientists During 1982.

Faculty interested in reviewing the report can check out a copy from the Office of the Dean and Director. Dr. F. A. Wood, University of Florida is Chairman of the Committee which prepared the report.

PART-TIME CSRS APPOINTMENTS

To meet expanded demands on the USDA Cooperative State Research Service to provide leadership in on-site reviews and participation on regional research technical committees, CSRS offers University scientists an opportunity to accept a part-time appointment with CSRS. The faculty members would remain at their home institutions and devote a portion of their time to regular responsibilities and a portion to the state agricultural experiment stations system-wide functions.

Dr. Leo Polopolus, University of Florida, and **Dr. Paul Farris**, Purdue University, have recently joined CSRS on part-time appointments and opportunities exist for other faculty to consider this arrangement in certain discipline areas. Faculty members who may be interested in a part-time temporary assignment of this type with CSRS are encouraged to visit with **Irv Omtvedt** regarding additional details.



OFFICIAL IANR LOGO

Vice Chancellor Arnold has designated the official logo for the Institute of Agriculture and Natural Resources to include the letters "IANR" in the triangle. When colors are used, the logo will be red and the words "Teaching", "Research" and "Extension" will be black. This official logo should be used on all stationery, publications, programs and other items whenever the logo is to be displayed.

PROGRESS ACCOMPLISHMENT REPORT

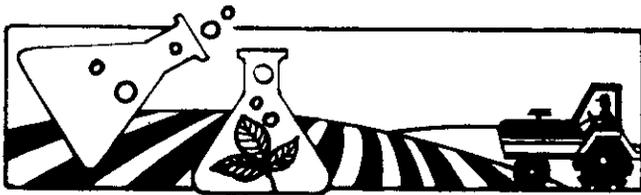
"Nitrogen Use and Management in Conservation-Production Systems." J. F. Power (Agronomy) was the investigator.

Results show that the cooler and more moist soil microenvironment found in residue-covered soils compared to bare soils results in an accumulation of organic N in the surface soil. Generally, use of fertilizer N by wheat, corn, or soybeans is not affected by residue cover, but uptake of soil N is often greater with than without residue cover. Very little of the N immobilized in wheat or corn residues is available to the next crop, while a large part of that in soybean residues is. Use of legume winter cover crops appear to have potential to maintain grain crop yields, decrease soil erosion potential, decrease fertilizer N requirements and decrease the potential for leaching nitrate.

STEPS TO STAGNATION

1. We are not ready for that.
2. We have never done it that way before.
3. We are doing all right without it.
4. We tried that once before.
5. It costs too much.
6. That is not our responsibility.
7. It just won't work.

— From the Panhandle Newsletter



AMERICAN AGRICULTURE

Although the readers of the ARD Newsletter are well aware of the role of American agriculture, the following excerpts taken from a recent speech given by Dr. Fred Davison, President of the University of Georgia, to the CAST Board of Directors, are worth reviewing:

- Agriculture remains America's largest industry by far. Its assets are equal to 90 percent of the total assets of all U.S. manufacturing operations.
- Agriculture is our nation's largest employer with 15 million people in the work force. However, this is less than 10 percent of our total population.
- Agricultural exports increased over 500 percent in dollar value in the past decade.
- American agriculture is the most cost-efficient and productive enterprise in the world.
- Americans spend the lowest percentage of our income on food of any people in the world.
- American farmers have produced more and more at lower and lower relative costs by using technological advancements made possible by agricultural research.
- Accomplishments to this point in agricultural and food sciences may be considered only the prelude to what will be asked of us in the future.
- Our challenge is to have the answers ready for the problems and challenges that will confront us when tomorrow arises.
- Food and agricultural science must successfully meet the challenge to feed, clothe and shelter six billion people by the year 2000 — 50 percent more people than lived on earth in 1975.
- The new age will be the age of biotechnology, an age in which we will learn to program nature.
- Future research must accelerate the process of combining information from different disciplines and sources to produce systems, ideas and plan to meet totally new needs.

RESEARCH GRANTS AND CONTRACTS RECEIVED NOVEMBER 1984

Agricultural Engineering	
Grants Under \$5,000 each	\$ 190
Agronomy	
Mattern, P. J. - USDA/ARS	25,000
Grants Under \$5,000 each	7,750
Environmental Programs	
Grants Under \$5,000 each	1,620
Food Science and Technology	
Grants Under \$5,000 each	2,026
Northeast Research and Extension Center	
Grants Under \$5,000 each	4,500
Panhandle Research and Extension Center	
Grants Under \$5,000 each	4,700
Plant Pathology	
Grants Under \$5,000 each	900
Total	46,686

CANCER AND SMOKING DISEASE RESEARCH ANNOUNCEMENT OF FY 1985-85 REQUESTS FOR APPLICATION

The Nebraska Department of Health has announced that applications for Cancer and Smoking Disease Research Fellowships will be accepted between December 1, 1984 and January 31, 1985 for the funding period of July 1, 1985 through June 30, 1986.

Proposals are sought from doctoral candidates and postdoctoral applicants associated with Creighton University or the University of Nebraska. The proposal must address research relating to cancer and/or smoking diseases.

All applications must be received by the Nebraska Department of Health by 5:00 p.m. on Friday, January 31, 1985 so ARD proposals should be submitted to the Agricultural Research Division Office by **January 21, 1985** to clear the UNL Research and Sponsored Programs Services Office in time to meet that deadline. Application materials and additional information may be obtained from the **UNL Research and Sponsored Programs Services Office**.

NEW PROJECT

91-028: Changes in Dietary Intake Produced by Social Environment. Hazel M. Fox and Nancy M. Betts, *Human Nutrition and Food Service Management*

Objectives: (1) determine dietary intakes and nutritional status of infants at the weaning period. (2) determine dietary practices and food intakes of young persons who leave the parental home, move to a different culture, or make other pronounced alterations in eating environment. New Hatch project effective October 2, 1984.