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## Agricultural Experiment Station News May 1982

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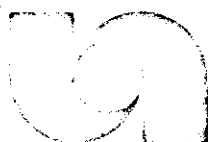
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## FROM THE DIRECTOR'S DESK

### Search Advisory Committee for Dean and Director, AES

Chancellor Massengale has appointed the following committee to advise Vice Chancellor Arnold as the selecting officer:

Dr. Dale Anderson  
Dr. Ron Case  
Dr. J. M. Daly  
Dr. E. A. Dickason  
Professor Dean Eisenhauer  
Professor Robert Fritschen  
Mr. Robert Gingery (off campus)  
Mr. Tom Gustafson (off campus)  
Ms. Gail Lepp (Graduate Student)  
Dean Leo Lucas  
Dr. Paul Nordquist  
Dr. Alfonso Torres-Medina

You received a Position Announcement and candidate solicitation dated March 9. Please provide further input, as you desire, through committee members.

### The Field Laboratory is Now Ours

You have noted the activities and publicity relating to the delivery of the deed for 8,400 acres of the University of Nebraska Field Laboratory from the U.S. Government to the Board of Regents. This resulted from 20 years of equity acquisition through approved and reported public service usage. The remaining 640 acres has four more years to go.

Dr. Warren Sahs has served as Supervisor of the Field Laboratory since its origin in 1962. Under his leadership and the executive efforts of many, many others, this facility has developed into a unique and outstanding research center. There are exciting plans for further development. Congratulations and thank you to Dr. Sahs and all others who have contributed so much.

### Sorghum/Millet Collaborative Research—Year Four

Nine Nebraska AES scientists working with six projects have received for 1982-83 a total of \$490,000 from the USAID Title XII International program. This is in addition to \$300,000 to Nebraska as the "Management Entity" for the \$3.5 million/year program. Nebraska projects are particularly in agronomy, but also involve horticulture, plant pathology and agricultural engineer-

ing. Drs. Leng and Vollmar provide the total program leadership.

### Department of Agricultural Communications Review

Programs of this department were vigorously reviewed and analyzed during the week of April 12 by a team from USDA/CSRS, neighboring institutions, and our own campus. This process was supported by extensive and thoughtful participation of the department staff. We appreciate the constructive and forward-looking review and the hard work of all involved.

**R. W. Kleis**  
Acting Dean and Director

### SAHS SEZ:

Research cattle at the Panhandle Station will serve as a model for IANR contract marketing of beef cattle, as per Board of Regents guidelines. An advisory group has been named and a three-man IANR decision team will activate the necessary procedures.

Three employees of the UNL Field Laboratory received certificates of appreciation, April 16th, for their part in developing the Field Laboratory from 1962-1982. They are Twila Berman, office supervisor; Elmer F. Knapp, farm operations manager; and Warren W. Sahs, supervisor.

### Open House—Gudmundsen Sandhills Research Center—Friday, June 4th

Calving is essentially completed, 4,000 windbreak trees have been planted, and an automated weather station will soon be operating, monitored by CAMaC personnel.

**Warren W. Sahs**  
Assistant Director

### ANNA H. ELLIOTT FUND

Several Experiment Station research project leaders have inquired about funding of new research projects from the Anna H. Elliott Fund effective July 1, 1982. This fund was established in the University of Nebraska Foundation some time ago with the stipulation that earnings from the fund would be used to support

research in some area of agriculture, particularly in the field of plant science, with preference to plant sciences in western Nebraska.

Several new projects were funded from this source for two- to three-year periods starting July 1, 1981. As a result there will not be adequate uncommitted funds available to call for new research proposals now. The Advisory Committee will evaluate the fund in January or February 1983 and decide if a call will be made for proposals to be funded starting July 1, 1983. This fund was established to support plant science related research for western Nebraska. If you have further questions, please contact one of the members of the Advisory Committee—Robert G. Gast, chairman, Elvis A. Dickason, R. W. Kleis and John Weihing.

**Robert G. Gast**  
**Agronomy Department Head**

### CALENDAR OF EVENTS

The attached Calendar of Events is a new item for the newsletter to improve communications between the departments of IANR. Spread the word and mark your calendar! You can obtain more information by calling the department which sponsors that particular event. If you have additional public events you would like listed in the June issue of the Newsletter, please contact Katie at 472-2045 before Thursday, May 27th.

Linsenmeyer, D. (Ag Economics) - Scoular-Bishop Grain Company	8,300
Loveday, H. D. (Animal Science) - W. Wayne and Wilma Hendrickson	200
Loveday, H. D. (Animal Science) - Wolf Brothers & Reich, Inc.	100
Martin, A. R. (Agronomy) - BASF Wyandotte Corporation	800
Mayo, Z. B., Monke, B. J. (Entomology) - NCR-PIAP	13,000
Moomaw, R. (Northeast Station) - BASF Wyandotte, Inc.	1,000
Omtvedt, I. T. (Animal Science) - American Society of Animal Science	500
Peters, L. R. (South Central Station) - Dow Chemical Company	1,000
Rehm, G. (Northeast Station) - Allied Chemical Corporation	2,000
Roeth, F. (South Central Station) - BASF Wyandotte, Inc.	800
Rush, J. G. (Panhandle Station) - Ajinomoto U.S.A., Inc.	6,000
Satterlee, L. D. (Food Science & Technology) - Regional Agricultural and Water Research Center, Saudi Arabia	3,150
Sumption, L. (North Platte Station) - Western Publishing Company	10,000
Torres-Medina, A. (Veterinary Science) - World Health Organization	10,000
Vidaver, A. K. (Plant Pathology) - University of Michigan	2,115
Wilson, R. G. (Panhandle Station) - BASF Wyandotte Corporation	400
Witkowski, J. F. (Northeast Station) - Dow Chemical Company	2,500
	218,890

### GRANTS AND CONTRACTS

Anderson, B. (Agronomy) - 3M Company	18,900
Anderson, F. N. (Panhandle Station) - American Crystal Sugar Company	900
Ball, E. M. (Plant Pathology) - Cornell University	200
Ball, E. M. (Plant Pathology) - Inst. Nat. de Invest. Agricolas	3,060
Ball, E. M. (Plant Pathology) - State of Maine	180
Brumm, M. C. (Northeast Station) - National Pork Producers Council	750
Brumm, M. C. (Northeast Station) - American Cyanamid Company	16,800
Burnside, O. C. (Agronomy) - BASF Wyandotte Corporation	1,000
Campbell, J. B., Danielson, D. M. (North Platte Station) - NCR-PIAP	15,000
Compton, W. A. (Agronomy) - Hoegemeyer Enterprises, Inc.	500
Dickinson, E. O. (Ver Science) - Nebraska SPF Swine Accrediting Agency	1,398
Fenster, C. R. (Panhandle Station) - American Hoechst Corporation	1,000
Gold, R. E. (Environmental Programs) - USDA/SEA/CSRS	14,787
Hubbard, K. G. (Center for Ag. Meteorology & Climatology) - UN Foundation	36,665
Johnson, R. J., Timm, R. M., (Forestry, Fisheries & Wildlife), Burnside, O. C. (Agronomy) - NCR-PIAP	9,224
Kamble, S. T. (Environmental Programs) - NCR-PIAP	7,481
Klopfenstein, T. (Animal Science) - Central Soya, Inc.	5,000
Klopfenstein, T. (Animal Science) - Eli Lilly & Company	4,000
Laughlin, J. M., Easley, C. (Textiles, Clothing & Design), Gold, R. F., (Environmental Programs), Hill, R. M. (Ag Biochemistry) - NCR-PIAP	20,180

Journal Articles - Submitted for Publication (contact authors for more information)

6856. Isolation and Concentration of Proteins for Electrophoretic Mapping. Leslie C. Lane. Analytical Biochemistry.
6857. The Need for a Systematic Program of Seed Increase and Phase-out for Public Alfalfa Cultivars. D. K. Barnes, W. R. Kehr and F. I. Frosheiser. Agronomy Journal.
6858. Genetics of *Gibberella fujikuroi* 2. Occurrence and Significance of Heterokaryosis in Nature. G. S. Sidhu. Phytopathology.
6859. Leadership Education/Action Development (LEAD) - A Working Model Post-Graduate Leadership Program. James T. Horner. NACTA Journal.
6860. For Adult Agriculturalists, A Leadership Laboratory - The State, Nation and World. James T. Horner. Agricultural Education Magazine.
6861. Quality Traits in Forage Sorghum Harvested at Early Head Emergence and at Physiological Maturity. J. F. Pedersen, F. A. Haskins and H. J. Gorz. Crop Science (Note).
6862. Detecting Atrazine Resistance in *Kochia scoparia*. Craig R. Salhoff and Alex R. Martin. Weed Science.
6863. Changes in Grain Sorghum Stomatal and Photosynthetic Response to Moisture Stress Across Growth Stages. Dennis P. Garrity, Charles Y. Sullivan and Darrell G. Watts. Crop Science.
6864. Leadership Education/Action Development (LEAD): A Working Model for Adult Agriculturalists. James T. Horner. Lifelong Learning: The Adult Years.
6865. A Quantitative Approach to the Doorenbos and Pruitt Version of the Penman Equation. Albert Weiss. Irrigation Science.
6866. Goals, Needs and Challenges in Standardization. LaVerne E. Stetson. Agricultural Engineering.
6867. Index Selection and Feed Intake Restriction in Swine. I. Effect on Rate and Composition of Growth. Erik R. Cleveland, R. K. Johnson and R. W. Mandigo. Journal of Animal Science.
6868. Index Selection and Feed Intake Restriction in Swine. II. Effect on Energy Utilization. Erik R. Cleveland, R. K. Johnson, R. W. Mandigo and E. R. Peo, Jr. Journal of Animal Science.
6869. Zinc Bioavailability from Vegetarian Diets: Influence of Dietary Fiber, Ascorbic Acid and Past Dietary Practices. C. Kies, E. Young and L. McEndree. ASC Book, Bioavailability of Zinc, G. Inglett, ed.

6870. Leadership Education/Action Development (LEAD) - An Innovative Program for Adult Agriculturalists OR LEAD - An Innovative Follow-up of FFA Leadership. James T. Horner. American Association of Teacher Educators in Agriculture Journal.
6871. Rapidly Determining Sorghum Canopy Photosynthetic Rates With A Mobile Field Chamber. Dennis P. Garrity, Charles Y. Sullivan and Darrell G. Watts. Crop Science.
6872. Purified Psyllium Seed Fiber, Human Gastrointestinal Tract Function and Nutritional Status of Humans. Constance Kies. ASC Book - Unconventional Sources of Dietary Fiber, Their Physiological and In Vitro Functional Properties - I. Furda, ed.
6873. Vegetarianism and the Bioavailability of Iron. C. Kies and L. McEndree. ASC book - Bioavailability of Iron.
6874. Application of Phosphorus, Potassium and Zinc to Corn Grown for Grain or Silage: Nutrient Content and Uptake. G. W. Rehm, R. C. Sorensen and R. A. Wiese. Soil Science Society of America Journal.
6875. Plant Genotype Differences to Uptake, Translocation, Accumulation, and Use of Mineral Elements. Ralph B. Clark. Proc. 1st Int. Symp. Genetic Specificity of Mineral Nutrition of Plants, Belgrade, Yugoslavia.
6876. Effect of Antibiotics on the Partial Inter-sterility in Alfalfa Weevils. Lyle E. Klostermeyer and George R. Manglitz. Journal of Invert. Pathology.
6877. Projected Grain Yields for the Ogallala Region, with Emphasis on Nebraska: 1977 to 2020. D. G. Hanway, R. J. Supalla, A. D. Flowerday and R. P. Waldren. Southwest Review of Management and Economics.
6878. Moisture Deficient and Grain Sorghum Performance; Drought Stress Conditioning. D. P. Garrity, C. Y. Sullivan and D. G. Watts. Agronomy Journal.
6879. Anthelmintic Activity of Fenbendazole Against Experimental *Metastrongylus apri* Infection in Swine. D. L. Ferguson. Journal of Parasitology.
6880. The Effect of Unit Train Grain Shipments on Rural Nebr. Roads. Dean Linsenmeyer. Transportation Research Board.
6881. Adaptations of Female Bobwhites to Energy Demands of the Reproductive Cycle. Ronald M. Case. Second National Quail Symposium.
6882. Analysis of Multiple, Low Level Herbicide Residues in Soil or Water Using Instrumental Clean-Up. Glenn R. Wehtje, J. Robert C. Leavitt and Duane R. Tupy. Weed Science.
6883. Microclimate in the Soybean Canopy. Dennis D. Baldocchi, Shashi B. Verma and Norman J. Rosenberg. Agricultural Meteorology.
6884. Modification of Soil Fertility by Plant Roots: Iron Stress-Response Mechanism. J. H. Bennett, R. A. Olsen and R. B. Clark. What's New in Plant Physiology.

6885. Phosphorus Translocation Between Small, Non-reproductive Tillers and the Main Plant of Maize (*Zea mays* L.). M. P. Russelle, J. A. Schild and R. A. Olson. *Agronomy Journal*.
6886. Layby Herbicide Application for Season-Long Weed Control in Irrigated Corn (*Zea mays*). Russell S. Moomaw, Alex R. Martin and Robert G. Wilson, Jr. *Weed Science Journal*.
6887. Accumulation of Virions and Ribosomal RNAs in Virus-infected Cereals. Myron K. Brakke, James White and Richard Samson. *Physiological Plant Pathology*.
6888. Protein Changes in Wheat Infected with Wheat Streak Mosaic Virus and In Barley Infected with Barley Stripe Mosaic Virus. James L. White and Myron K. Brakke. *Physiological Plant Pathology*.
6889. Occurrence of Fungal Species in Stalks and Roots of Sorghum During the Growing Season. Janet E. Reed, James E. Partridge and Paul T. Nordquist. *Plant Disease*.
6890. Reporting the Effectiveness of Consumer and Homemaking Programs Through Case Study Development. Connie J. Ley and Ruth Ann Mears. *Vocational Education Research Journal*.

Journal Abstracts - Submitted for Publication (contact authors for more information)

- 82-1754. Influence of Propagating Materials, Fertilizer Rates, and Other Factors on *Liatris pycnostachya* Michx. cv. Eureka. Jay B. Fitzgerald and Sotero S. Salac. *American Society for Horticultural Science*.
- 82-1755. Evaluation of Inoculation Methods and Reaction of *Phaseolus* Germ Plasm to Three Isolates of *Xanthomonas phaseoli*. H. K. Leyna, D. P. Coyne and M. L. Schuster. *HortScience*.
- 82-1756. Genetic Control of Resistance to Powdery Mildew in Butternut Squash (*Cucurbita moschata* Poir). A. A. Adeniji, D. P. Coyne and K. W. Lee. *HortScience*.
- 82-1757. The Efficacy of Selected Home Use Insecticide Products Upon German Cockroach Populations, 1981. James B. Ballard and Roger E. Gold. *Acaricide and Insecticide Tests*.
- 82-1758. Kentucky Bluegrass Blend and Cultivar Response to Billbug (*Sphenophorus parvulus* Gyllenhal) Larval Injury. R. C. Shearman, D. H. Steinegger and D. M. Bishop. *American Society for Horticultural Science*.
- 82-1759. A Preliminary Study on the Potential of *Limonium sinuata* for Field Production in Nebraska. Ellen T. Papparozzi and Jay B. Fitzgerald. *HortScience*.
- 82-1760. The Influence of Inter and Intra-row Competition on Selection for Avoidance of White Mold Disease in Dry Edible Beans. Peter Fuller, D. P. Coyne and J. R. Steadman. *HortScience*.

- 82-1761. Genetic Variation and Inheritance of Iron Deficiency in Crosses of Beans (*Phaseolus vulgaris* L.). D. P. Coyne, S. S. Korban, D. Knudsen and R. B. Clark. Report of Bean Improvement Cooperative and National Dry Bean Council Research Conference.
- 82-1762. Occurrence, Spread, and Evaluations of Dent Corn Hybrids and Inbred Lines for Reaction to Corn Lethal Necrosis in Nebraska. Ben Douplik, Jr., Les Lane and David S. Wysong. American Phytopath. Soc. (Vol. 72).
- 82-1763. Evaluation of Two Force Molting Procedures and Their Effect on Productive Performance of Two Strains of White Leghorns. H. R. Bird, M. L. Sunde, N. W. Said and T. W. Sullivan. Poultry Science.
- 82-1764. Effect of Dietary Phosphorus Level and Source on Productive Performance and Egg Quality of Two Recycled, White Leghorns Strains. N. W. Said, T. W. Sullivan, M. L. Sunde and H. R. Bird. Poultry Science.
- 82-1765. Effect of Dietary Phosphorus Level and Source on Productive Performance and Egg Quality of Two Strains of White Leghorns. N. W. Said, T. W. Sullivan, M. L. Sunde and H. R. Bird. Poultry Science.
- 82-1766. Influence of Protein and SAA Levels on Egg Size and Other Production Criteria During the Onset and Last Phase of Lay. H. Najib and T. W. Sullivan. Poultry Science.
- 82-1767. Effect of Phosphorus Regimen on Productive Performance of Layers. N. W. Said and T. W. Sullivan. Poultry Science.
- 82-1768. Vitamin, Trace Mineral and Antibiotic Supplementation of Turkey Diets. F. G. Abawi and T. W. Sullivan. Poultry Science.
- 82-1769. Acaricidal Activity of Ivermectin Against an Experimental Infestation of *Psoroptes ovis* in Cattle. D. L. Ferguson and T. C. Swieczkowski. Annual Meeting, American Association of Veterinary Parasitologists.
- 82-1770. Effect of Receiving Diet and Water Medication on Performance of Purchased Feeder Pigs Transported Long Distances. M. C. Brumm and E. R. Peo, Jr. Journal of Animal Science.
- 82-1771. Effect of Three Receiving Diets on Performance of Purchased Feeder Pigs. M. C. Brumm and E. R. Peo, Jr. Journal of Animal Science.

CALENDAR OF EVENTS - SUMMER, 1982

<u>DAY AND DATE</u>	<u>TIME</u>	<u>EVENT AND PLACE</u>	<u>SOURCE AND PHONE NO.</u>
Wednesday, May 26th	3:00 p.m.	Multi-County No-till Planting Demonstration - Saline County	Elbert Dickey, Ag. Eng. 402-472-3950
Friday, June 4th	1:30 p.m.	Gudmundsen Sandhills Research Center Open House - Mullen, Nebraska	North Platte Station 308-532-3611
Thursday, June 10th	3:00 p.m.	South Central Station - Field Day Clay Center, Nebraska	South Central Station 402-762-3535
Tuesday, June 15th	all day	7th Annual Nebraska Turfgrass Field Day University Field Laboratory, Mead, NE	Horticulture Department 402-472-2854
Thursday, June 24th	morning only	High Plains Ag. Lab - Field Day, Small Grain Crops Research Tour, Sidney, NE	Panhandle Station 308-632-1230
Thursday, July 22nd	all day	Tractor Power and Safety Day University Field Laboratory, Mead, NE	Ag. Engineering Department 402-472-1413
Saturday, July 31st	all day	Sheep Unit and Ram Test - Open House University Field Laboratory, Mead, NE	Animal Science Department 402-472-3571
Wednesday, August 4th	afternoon only	Sandhills Ag. Lab - Field Day Tryon, Nebraska	Panhandle Station 308-632-1230
Thursday, August 5th	all day	Panhandle Station - Field Day Scottsbluff, Nebraska	Panhandle Station 308-632-1230
Thursday, August 19th "tentative"	morning only	High Plains Ag. Lab - Millet, Sorghum, Ecofallow Corn Research Tour, Sidney, NE	Panhandle Station 308-632-1230
Tuesday, August 24th	all day	Northeast Station 25th Anniversary Field Day - Concord, Nebraska	Northeast Station 402-584-2261
Wednesday, August 25th	all day	Organic Ag. Field Day & Farm Tour will Tour N.E. Station and area Farms	Warren Sahs - Ag. Exp. St. 402-472-2045
Thursday, September 9th	all day	Agronomy Field Day - University Field Laboratory - Mead, Nebraska	Agronomy Department 402-472-1555
Saturday and Sunday September 25-26	all day	Forestry Field Days - Horning Farm 2 miles south of Plattsmouth, NE	Forestry Department 402-472-2944