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## Agricultural Experiment Station News August 1974

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UNIVERSITY OF NEBRASKA-LINCOLN  
COLLEGE OF AGRICULTURE  
THE AGRICULTURAL EXPERIMENT STATION

H. W. OTTOSON, DIRECTOR AND  
ACTING DEAN

# Agricultural Experiment Station



Vol. 7, No. 2, August 1974

## NEBRASKA'S RANGE RESEARCH PROGRAM

Fertilization and grazing studies constitute much of Nebraska's range research. Continuous and four pasture rotation grazing systems with and without nitrogen fertilizer are being conducted at the Panhandle Station and planned for 1975 at the Sandhills Agricultural Laboratory (SAL). Fertility experiments on upland sandhills rangeland are currently in progress at several locations in the Sandhills for dry matter yields and forage quality. Fertility experiments on sub-irrigated sites have been conducted and will continue to receive attention at various locations.

Winter and Spring nutrition supplements to pregnant and lactating cows, respectively, are being evaluated at SAL. Grazing of warm and cool season grasses alone and in combination is being conducted at Mead.

Seeding of cool season grasses in abandoned farm fields to compliment range is receiving attention at SAL. Physiology studies include (1) monitoring plant growth through the growing season of several warm season grasses at Halsey, (2) establishing carbohydrate trends of warm season grasses, and (3) determining the role of carbohydrates and plant vigor in sand lovegrass. Downy brome control is being evaluated with several herbicides at three locations. Emphasis on range improvement practices is planned at SAL.

Evaluation, including quality, and selection of improved strains of warm season grasses is an important aspect of range research and the need is certain to always be present.

L. J. Perry, et al

## PERSONNEL ACTIONS

Congratulations to the following staff members newly elected to the Graduate Faculty.

Frank N. Anderson - Agronomy	Roland J. Hanson - Agr'l Economics
Louis A. Daigger - Agronomy	Russell S. Moomaw - Agronomy
Gary M. Dornhoff - Agronomy	Lenis A. Nelson - Agronomy
Charles R. Fenster - Agronomy	Paul T. Nordquist - Agronomy
Kenneth D. Frank - Agronomy	Louis T. Palmer - Plant Pathology
John D. Furrer - Agronomy	James E. Stroiike - Agronomy

## GRANTS AND CONTRACTS

Burnside, Orvin C. - Agronomy - Diamond Shamrock Corporation	\$ 500
Campbell, J. B. - Entomology (NP Sta.) - Shell Oil Company	1,000
DeShazer, James A. - Agr'l Engineering - Poultry Institute of America	1,000
Fenster, Charles R. - Agronomy (PH Sta.) - Wheat Division--Neb. Dept. of Ag.	3,000
Gilbertson, Conrad G. - Agricultural Engineering - Miscellaneous Donors	1,790
Hagen, Arthur P. - Entomology (PH Sta.) - E. I. DuPont De Nemours Co.	500

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# Grants and Contracts (continued)

Hagen, Arthur P. - Entomology (PH Sta.) - Shell Oil Company	\$ 500
Kendrick, J. & L. Satterlee - Ag. Econ. & FS&T - Agr'l Prod. Ind. Util. Comm.	15,600
Larson, Larry - Animal Science - Mid America Dairymen, Incorporated	2,540
Mattern, Paul - Agronomy - Wheat Division - Neb. Dept. of Agriculture	3,50
Mayo, Z. B. - Entomology - Chevron Chemical Company	500
Mayo, Z. B. - Entomology - FMC Corporation	1,000
Mayo, Z. B. - Entomology - Mobil Chemical Company	2,000
Moomaw, Russel S. - Agronomy (NE Sta.) - Shell Development Company	500
Neild, Ralph E. - Horticulture and Forestry - Colorado State University	1,950
O'Keefe, Robert B. - Horticulture and Forestry - Diamond Shamrock Corp.	500
Olson, Robert A. - Agronomy - Tennessee Valley Authority	20,000
Peo, Ernest P. - Animal Science - Rhodia, Inc.	5,000
Peters, Leroy L. - Entomology (SC Sta.) - Shell Chemical Co.	500
Rosenberg, Norman L. - Horticulture and Forestry - NOAA	10,000
Satterlee, L. & Kendrick, J. - Agr'l Econ. & FS&T - Dept. of Econ. Devel.	20,000
Shahani, Khem - FS&T - Dannon Milk Products	4,200
Steadman, James R. - Plant Pathology - E. I. DuPont	500
Twiehaus, Marvin - Veterinary Science - Dow Chemical Company	710
Wicks, Gail A. - Agronomy (NP Sta.) - Shell Development Company	600
Wicks, Gail A. - Agronomy (NP Sta.) - Wheat Div. - Neb. Dept. of Agriculture	3,000
White, Gene and Campbell John - Vet. Sci. & Ento. (NP Sta.) - Chemagro	700

## GENERAL NOTES

1. Dr. Earl Raun has left his position as Associate Director of Extension to establish a private business--"Pest Management Consultants Incorporated". We miss Earl as a co-worker and wish him much success in his new undertaking.
2. Dr. Frank Baker has resigned as Chairman of Animal Science to become Dean of Agriculture at Oklahoma State University effective November 1. Frank has distinguished himself as a professional and academic leader and has contributed greatly to Nebraska and to this University in his years with us. Congratulations both to Frank and to Oklahoma State. Let's hope their football team performs less impressively than the search committee that selected Frank.
3. Formal dedication of the new Home Economics building will be October 26. It will not be on September 4 as indicated in last month's letter.
4. Dr. Sahs received a commendation award for "contributing to the science and art of good land use" from the Nebraska Council of the Soil Conservation Society of America at their annual meeting in Norfolk.
5. The state office of Veterans Affairs has acquired the dormitory facilities of the former Hiram Scott College for use as a veterans home. We are pleased that they will be neighbors of our Panhandle Station.
6. Dr. Duane Zimmerman is chairman of the search committee for an Animal Science Department Chairman. Suggestions of candidates should be communicated to him very promptly.
7. Schnieder on Safety - Check those dry chemical fire extinguishers in your work area. Know where they are, that they are fully charged and how to use them. Don't be just an observer in the event of a fire. Advance knowledge of the proper use of the extinguisher may come in handy.

R. W. Kleis

NEBRASKA AGRICULTURAL EXPERIMENT STATION PUBLICATIONS - July 1974

Journal Articles (contact authors for more information)

3831. Reuse Limits and Regeneration of Solutions for Cleaning Dairy Equipment. S. M. Kulkarni, R. G. Arnold and R. B. Maxcy. Journal of Dairy Science.
3832. Restructured Meat Products. Roger W. Mandigo. Proceedings of Reciprocal Meat Conference.
3833. Supplemental Lysine Additions to a Basal Growing-Finishing Swine Diet. D. M. Danielson and J. J. Noonan. Journal of Animal Science.
3834. The Role of "Turkey" Wheat Germplasm in Wheat Improvement. John W. Schmidt. Transaction Kansas Academy Science.
3835. Genetic Studies of Induced Mutants in Melilotus Alba. R. R. Ronnenkamp, H. J. Gorz and F. A. Haskins. Crop Science.
3836. Use of Animal Wastes as a Soil Amendment. T. M. McCalla. 10th Midwest Regional Meeting, American Chemical Society.
3837. Improving Utilization of Animal By-Products for Human Foods - A Review. L. D. Satterlee. Journal of Animal Science.
3838. Effect of Lending Strategy and the Cattle Price Cycle on Growth of Ranch Firms. Glenn A. Helmers. Proceedings of Western Agricultural Association.
3839. Hypersensitive Response of Near-Isogenic Wheat Carrying the Temperature-Sensitive Sr6 Allele for Resistance to Stem Rust Fungi. S. Mayama, J. M. Daly, D. Rehfeld and Cecilia R. Daly. Journal of Science.
3840. The Protein Nutritional Value of Wheat and Triticale as Evaluated by Weanling Mice Bioassay. R. L. Ulmer, P. J. Mattern, V. A. Johnson and C. Kies. Crop Science.
3841. Corynebacterium nebraskense, A New Orange-Pigmented Phytopathogenic Species. A. K. Vidaver and Manley Mandel. Int. J. System. Bacteriol.
3842. Cultural, Genetic and Other Factors Affecting Quality. V. A. Johnson, P. J. Mattern and K. P. Vogel. International Symposium on "Bread," The Rank Prize Funds.
3843. Fate of Bacteria Exposed to Washing and Drying on Stainless Steel. R. B. Maxcy. Journal of Milk and Food Technology.
3844. Carbon Dioxide Concentration and Flux in a Large Agricultural Region of the Great Plains of North America. Shashi B. Verma and Norman J. Rosenberg. Journal of Geophysical Research.
3845. An Objective-Based Teaching System with Computerized Grading and Record Keeping. R. C. Sorensen and J. M. Hart. Journal of Agronomic Education.
3846. Effects of Source on Copper Uptake by Swine. G. L. Zoubek, E. R. Peo, Jr., B. D. Moser, T. Stahly and P. J. Cunningham. Journal of Animal Science.

Journal Abstracts (contact authors for more information)

- 74-349. Biochemical Studies of Chlorophyll-Deficient Mutants in Melilotus Alba. J. E. Specht, H. J. Gorz and F. A. Haskins. 1974 Agronomy Abstracts.
- 74-350. Weight Gains in Selected Lines of Sheep. Ted H. Doane and Thomas E. Socha. American Society of Animal Science.
- 74-351. Gastrointestinal Parasites in Beef Cows. John K. Ward and Donald L. Ferguson. Journal of Animal Science.
- 74-352. Whole Corn Plant Pellet for Gravid Swine. L. K. McMullen, B. D. Moser, E. R. Peo, Jr., and P. J. Cunningham. Journal of Animal Science.
- 74-353. Effect of Triamcinolone on Metabolism of Low Quality Proteins by Swine. T. S. Stahly, E. R. Peo, Jr., B. D. Moser and P. J. Cunningham. Journal of Animal Science.
- 74-354. Effect of Triamcinolone on Metabolism of Low Quality Proteins by Rats. T. S. Stahly, E. R. Peo, Jr., B. D. Moser and P. J. Cunningham. Journal of Animal Science.
- 74-355. Effect of Salt and Sodium Tripolyphosphate on Restructured Pork. W. C. Schwartz and R. W. Mandigo. Journal of Animal Science.
- 74-356. Effects of Short-Chain Fatty Acids Extracted from Beef Cattle Manure on Germination and Seedling Development. G. E. Schuman and T. M. McCalla. Agronomy Abstracts.
- 74-357. Effect of Frozen Storage on Flaked, Cured Pork. K. L. Neer and R. W. Mandigo. Journal of Animal Science.
- 74-358. The Effects of Mechanical Tenderization and Press/Cleave Portioning on Boneless Pork Loins. W. J. Goldner and R. W. Mandigo. Journal of Animal Science.
- 74-359. Effect of Soil or Concrete on Claw Characteristics of G-F Swine. R. D. Fritschen and P. J. Cunningham. American Society of Animal Science.
- 74-360. Chemical Properties of Continuously Cropped Soil as Influenced by Annual Manuring. Leon Chesnin. Agronomy Abstracts.

BULLETINS PRINTED

- RB 241. Performance Evaluation of Some Warm-Season Prairie Grasses in Nebraska Environments. D. D. Warnes, L. C. Newell and W. J. Moline.
- RB 262. Nutrient and Energy Composition of Beef Cattle Feedlot Waste Fractions. C. B. Gilbertson, J. A. Nienaber, J. R. Ellis, T. M. McCalla, T. J. Klopfenstein and S. D. Farlin.
- RB 263. Tree-Covered Land-Forms For Noise Control. David I. Cook and David F. Van Haverbeke.
- CC 174. Sudangrass and Sudansorghums Summer Annuals for Pasture. W. J. Moline.