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THE AGRICULTURAL EXPERIMENT STATION
INSTITUTE OF AGRICULTURE
AND NATURAL RESOURCES
UNIVERSITY OF NEBRASKA-LINCOLN
H. W. OTTOSON, DIRECTOR

Agricultural Experiment Station NEWS

Vol. 11, No. 1, July, 1978

FROM THE DIRECTOR'S DESK

Much has been said in recent months about the use of AGNET as an information delivery system for teaching and extension, but AGNET also has many capabilities as a research tool. One of the strengths of the AGNET system is its ability to store research information on many complex, interacting factors that affect biological or mechanical systems and make that information available for research on agricultural problems. This capability permits researchers to develop computer simulation models to explore the effects of interacting variables under a variety of assumed conditions. Thus, the researcher is able to ask the "what if" questions that help lead to an optimum solution to a research problem.

AGNET simulation models are an excellent way to integrate research ideas and information from different departments and different subject matter areas. For example, the BEEF grower simulation model combines research inputs from Ag Economics, Animal Science, Ag Engineering, and Agronomy, and is a useful tool for further research in animal growth and development. Most of the models currently on the AGNET systems have research applicability as well as being useful for teaching and extension.

AGNET also has many capabilities for the statistical analysis of research data through the use of the STATPAK group of programs. Analysis of variance, simple and multiple regression analysis, and correlation analysis are just a few of the available routines. The possibility of accessing the SPSS and SAS statistical packages through AGNET is currently being explored.

Researchers wishing to develop AGNET programs are encouraged to consult with AGNET staff and to obtain a copy of a recently completed AGNET programmers manual.

W. M. Schutz

PERSONNEL ACTIONS

Dickey, Elbert C. - Asst. Professor - Ag. Engineering - New Appointment
Honeman, Robert H. - Inst. (Res. Soil Scientist) - Cons. & Surv. - New Appointment
Johnson, Rodger K. - Assoc. Professor - Animal Science - New Appointment
Lowry, Timothy J. - Asst. Professor - Ag. Economics - New Appointment
Moser, Lowell D. - Professor - Agronomy - Leave of Absence (to August, 1979)

GRANTS AND CONTRACTS

Arnold, R. G. - Food Science & Technology - General Mills Fdtn.	$ 1,000
Ball, H. J. - Entomology - FMC Corporation and Monsanto	1,500
Brandle, J. R. - Forestry, Fisheries & Wildlife - Nebr. Railroad Assoc.	1,500
Britton, R. A. - Animal Science - USDA-SEA	7,000
Burnside, O. C. - Agronomy - U.S. Borax and Chemical Corporation	1,500
Campbell, J. B. - Entomology (N.P. Sta.) - Ciba-Geigy Corporation	500
Case, R. M. - Forestry, Fisheries & Wildlife - Nebr. Game & Parks Commission	8,288
Compton, W. A. - Agronomy - Miscellaneous Donors	300
Daigger, L. A. & D. H. Sander - Agron (PH Sta) - Nebr. Dept. of Agriculture	3,500
Dickason, E. A. - Entomology - FMC Corporation	800
Ellington, E. F. - Animal Science - IMC Chemical Group, Inc.	4,500
Ferrill, M. D. - For., Fish., Wildlife - USDA Rocky Mtn. For. Rnge. Exp. Sta.	21,930
Ferrill, M. D. - Forestry, Fisheries, & Wildlife - US Forest Service - USDA	215,869
Gilley, J. R. - Ag. Engineering - U.S. Dept. of Energy	146,725
Gold, R. E. - Environmental Programs - Nebr. Natural Resources Commission	28,070
Haderlie, L. C. - Agronomy - Nebr. Weed Control Assoc.	200
Holtzer, T. O. - Entomology - Pest Management Consultants, Inc.	2,600
Hudson, D. B. - Vet. Science (N.P. Sta.) - Dellen Labs.	796
Johnson, B. B. - Ag Econ - USDA-NC Pest. Impact Asses. Prgm. (SEA-CR)	22,025
Klopfenstein, T. J. - Animal Science - Chevron Chemical Company	10,000
Linsenmeyer, D. - Ag. Economics - Nebr. Soybean Development, Util. & Mktg.	2,500
Mayo, Z. B. - Entomology - FMC and Stauffer Chemical Company	1,500
Olson, R. A. - Agron - T. V. A. - Soils & Fertilizer Research Branch	35,750
Rehm, G. W. - Agronomy (N.E. Sta.) - Dow Chemical Company	1,000
Schmidt, J. W. - Agron - Div. of Wheat Development & Mktg, Nebr. Dept. of Agr.	1,554
Shearman, R. C. - Horticulture - OMC - Diamond Shamrock	500
Steadman, J. R. - Plant Pathology - USDA and Diamond Shamrock Corp.	5,500
Sullivan, T. W. - Animal Science - Syntex Research Div., Syntex USA, Inc.	2,000
Wicks, G. A.-Agronomy (N.P. Sta.) - Shell Development Company	1,500
Witkowski, J. F. - Entomology (N.E. Sta.) - FMC Corporation	500
Wittmuss, H. D. - Ag. Engineering - USDA, SCS	10,000

GENERAL NOTES

1. Livestock disease research grant proposals are solicited for funding from the Calf Scours Vaccine Royalty fund. Funds are available to support several 10,000 to 25,000 grants. Several relevant departments and stations have received information about this. Particular encouragement is given to collaborative research. Due date is August 31 for brief (2 - 3 page) proposals.

2. Tractor Power and Safety Day at the Field Laboratory is July 27.

3. Please be reminded that current project outlines are essential both programmatically and legally. The legal requirement is for use of Hatch funds for salaries. Thus, please keep track of the termination dates of your projects and take steps ahead of time to develop replacement or revised project outlines.

4. We hope you have had, are having, or will have an enjoyable vacation. They are important too.

5. "It is easy to find fault, but it's darned hard to tell what to do with it."

R. W. Kleis

NEBRASKA AGRICULTURAL EXPERIMENT STATION PUBLICATIONS - June 1978

Journal Articles (contact authors for more information)

5524. The Allelopathic Activity of Canada Thistle (*Cirsium arvense* (L.) Scop.) Residue on Crop Growth. Robert G. Wilson, Jr. Weed Research.

5525. Indirect Solid-Phase Micro-Radioimmunoassay for Detection of Pseudorabies Virus Antibody in Swine Sera. C. L. Kelling, L. W. Staudinger and M. B. Rhodes. American Journal of Veterinary Research.

5526. Quantification of Proteinaceous Soil Removal from CIP Systems. L. M. Rasmussen and R. B. Maxcy. Journal of Dairy Science.

5527. Effect of Sodium Hydroxide Treatment on Rate of Passage and Rate of Ruminal Fiber Digestion. L. L. Berger, T. J. Klopfenstein and R. A. Britton. Journal of Animal Science.

5528. Effect of Harvest Date and Chemical Treatment on the Feeding Value of Corn Stalklage. L. L. Berger, J. A. Paterson, T. J. Klopfenstein and R. A. Britton. Journal of Animal Science.

5529. Effect of Sodium Hydroxide on Efficiency of Rumen Digestion. Larry Berger, Terry Klopfenstein and Robert Britton. Journal of Animal Science.

5530. An Improved Sample Holder for Q-Meter Dielectric Measurements. Stuart O. Nelson. Transactions of the ASAE.

5531. Effect of N Source and Length of Feeding on Glutamate Metabolizing Enzymes and Tissue Amino Acids in Sheep. R. A. Britton, R. L. Prior, R. A. Scott and G. Huntington. Journal of Animal Science.

5532. Influence on Supplemental Nitrogen Source and Time on Feed on Serine Metabolism in Sheep. R. L. Prior, R. A. Scott and R. A. Britton. Journal of Animal Science.

5533. The Origins of Density Gradient Centrifugation. Myron K. Brakke. "Fractions" the house publication of Beckman Instruments.

5534. Students Gain from Animal Supplies and Services Instruction. Roy D. Dillon. Agricultural Education Magazine.

5535. Heterogeneous Susceptibility of Shattercane to Periconia circinata and its Pathotoxin. L. D. Dunkle. Phytopathology.

5536. Management of Established Stands of Alfalfa for Dehydration. W. R. Kehr and R. L. Ogden. Proceedings of 2nd International Crop Drying Congress, University of Saskatchewan, Canada.

5537. Identification of a Combine-height Grain Sorghum Dominant for *Dw1*. W. M. Ross and K. D. Kofoid. Crop Science.

5538. Effect of Insecticides, Applied to Resistant and Susceptible Varieties, on Spotted Alfalfa Aphid and Alfalfa Weevil. J. M. Mueke, G. R. Manglitz and W. R. Kehr. Journal of Economic Entomology.

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Journal Abstracts (contact authors for more information)

78-1033. Sire by Environment Interactions in Beef Cattle Field Data. D. S. Buchanan and M. K. Nielsen. Journal of Animal Science.

78-1034. Food Habit Changes of Persons of Chinese Background Living in Lincoln. Grace I. Yang and Hazel M. Fox. Journal of American Dietetic Association.

78-1035. Pinkeye in Cattle as Affected by Eyelid Pigmentation. J. K. Ward and M. K. Nielsen. Journal of Animal Science.

78-1036. Rate of Passage and Rate of Ruminal Fiber Digestion as Affected by Level of NaOH Treatment. L. L. Berger, T. J. Klopfenstein and R. A. Britton. Journal of Animal Science.

78-1037. Corn Gluten Meal, Blood Meal and Meat Meal as Protein Sources for Ruminants. Neal Merchen, John Waller and Terry Klopfenstein. Journal of Animal Science.

78-1038. Effect of Sodium Hydroxide Treatments of Roughage on Mineral Balance and Digestibility. J. A. Paterson, T. J. Klopfenstein and R. A. Britton. Journal of Animal Science.

78-1039. The Digestibility of Sodium Hydroxide Treated Crop Residues When Fed With Alfalfa. J. A. Paterson, T. J. Klopfenstein and R. A. Britton. Journal of Animal Science.

78-1040. Effect of Monensin on Rumen Bypass of Protein and Microbial Protein Synthesis. Mary I. Poos, T. L. Hanson and T. J. Klopfenstein. Journal of Animal Science.

78-1041. Effect of Distillers Grains on Nitrogen Metabolism and Performance of Ruminants. John Waller and Terry Klopfenstein. Journal of Animal Science.

78-1042. Ensiling and Preservatives on Corn Silage Value. D. D. Fuchser, T. J. Klopfenstein and R. A. Britton. Journal of Animal Science.

78-1043. Virulence Distribution of Puccinia Recondita in Nebraska in 1977. Akbar Karanmal, J. E. Watkins and L. D. Dunkle. Proceedings of the American Phytopathological Society.

78-1044. Magnesium, Tallow and Housing Effects on Performance and Tail Biting Incidence of G-F Pigs. R. D. Fritschen, E. R. Peo, Jr., B. D. Moser, P. J. Cunningham and T. Crenshaw. Journal of Animal Science.

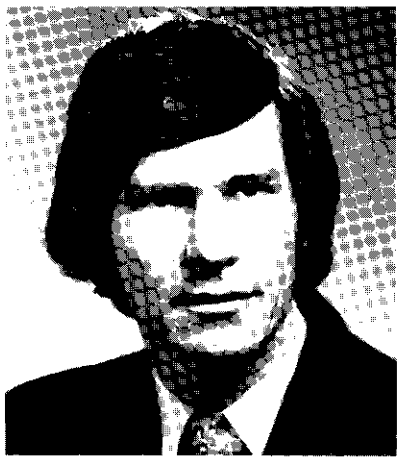
78-1045. Using the Computer to Understand Power of a Test. Anne M. Parkhurst and Anna Nevius. The Nebraska Academy of Sciences Proceedings.

78-1046. Repeatability of Litter Size in Swine. William T. Ahlschwede. Journal of Animal Science.

78-1047. Microbial Degradation of Carbofuran in Nebraska Soils with History of Carbofuran Failure. J. Newton, Z B Mayo and R. Richardson.

BULLETINS PRINTED

RP 254. Sensory Properties of Poultry Meat. Published at the University of Nebraska-Lincoln.



Dr. Austin Lewis is an Assistant Professor of Animal Science in the area of swine nutrition. He started September 1, 1977.

Dr. Robert Gast came from the University of Minnesota on July 1, 1977 as the new Head of the Department of Agronomy.

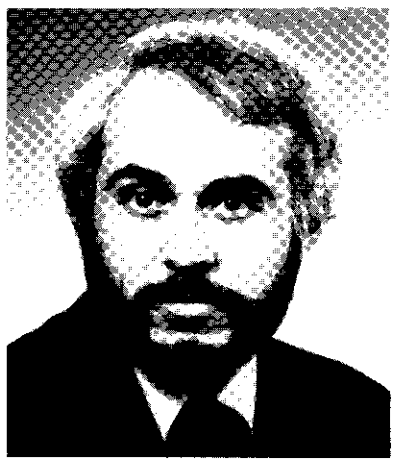
Mr. Vincent Arthaud, Professor of Animal Science Emeritus, retired on June 30, 1977. He worked for the University of Nebraska for 32 years.

Dr. Marvin Twiehaus, Professor of Veterinary Science Emeritus and former Department Head, retired on June 30, 1977.

Dr. Clayton Kelling, Assistant Professor of Veterinary Science, came from North Dakota in September, 1976. He is a Veterinary Virologist.

Dr. Dale Swartzendruber, Professor of Agronomy, came from Purdue University in August, 1977. He is a soil physicist.

Dr. Alfonso-Torres Medina is a Professor of Veterinary Science. He came from Colombia, South America in February 1978.



Dr. W. Lee Wilke, Assistant Professor of Veterinary Science, came from Colorado State University on March 1, 1977. He is a physiologist.

Dr. E. Denis Erickson came from Pullman, Washington on August, 1977. He is an Assistant Professor of Veterinary Science.