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## Agricultural Experiment Station News July 1983

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THE AGRICULTURAL EXPERIMENT STATION  
INSTITUTE OF AGRICULTURE  
AND NATURAL RESOURCES  
UNIVERSITY OF NEBRASKA-LINCOLN 68583-0704



# Agricultural Experiment Station News

July 1983

VOL 17 NO 1

## ASSOCIATE DIRECTOR POSITION

The Search Committee for the position of Associate Dean and Director submitted four names to the Director for consideration. At this time, interviews have been scheduled for the week of August 8, 1983 for **Roger Gold**, Professor of Entomology and Coordinator of Environmental Programs, University of Nebraska; **Herman Knoche**, Professor and Head of Agricultural Biochemistry Department, University of Nebraska; and **Dale Vanderholm**, Professor of Agricultural Engineering and Assistant Director of Illinois Agricultural Experiment Station. **Gerald E. Carlson**, National Research Program Leader, USDA/ARS, Washington, D.C., will be interviewed the week of Aug. 21.

## FIELD LABORATORY TASK FORCE

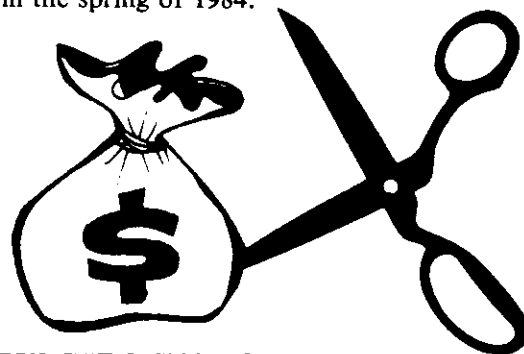
**Roger Uhlinger** has been selected to chair a Task Force to develop a long-range comprehensive plan for the University Field Laboratory. The IANR extension and teaching needs are to be addressed as well as the research needs. Members of the Task Force include: **Ken Bolen**, **Jim Brandle**, **Earl Ellington**, **Dale Flowerday**, **Merwin Frey**, **Robert Fritschen**, **Keith Glewen**, **Stanley Jensen**, **Terry Klopfenstein**, **Z. B. Mayo**, **William Miller**, **Warren Sahs**, **Robert Shearman**, **James Specht** and **Shashi Verma**. All IANR staff members are encouraged to provide Task Force members with their suggestions. The Task Force is expected to hold its initial meeting in early September.

## FIELD DAY STEERING COMMITTEE

At the recommendation of a special Task Force appointed last fall, an IANR Field Day focusing on some phase of animal agriculture will be held at the University Field Laboratory in July 1984. The 1985 event will emphasize crop production. **Leo Lucas** and **Irv Omtvedt** appointed the following persons to serve on the steering committee for the 1984 Field Day: **Warren Sahs**, and **Loyd Young** (co-chairmen), **Bruce Anderson**, **Dick Fleming**, **Merwin Frey**, **Keth Glewen**, **Dale Hanson** (clientele representative), **Rollin Schnieder**, **Dennis Schulte**, and **Rock Stock**. A steering committee for the 1985 event will be appointed later this year.

## COMPREHENSIVE PROGRAM REVIEWS

The Center for Agricultural Meteorology and Climatology will be reviewed on September 19-22, 1983 and the Department of Forestry, Fisheries and Wildlife is scheduled to hold its Comprehensive Departmental Review on September 26-30, 1983. The Department of Agricultural Education is scheduled to be reviewed in the winter of 1984 with the Department of Horticulture being reviewed in the spring of 1984.



## BUDGET SITUATION

The base budget for the Agricultural Experiment Station was reduced by nearly \$274,000 and 16 FTE effective July 1, 1983 to accommodate the 2% budget reduction from the November, 1982 special legislative session permanent reduction in the 1982-83 fiscal year base. A total of 24.75 FTE were eliminated from the original 1982-83 budget for IANR.

The 1983-84 budget provided funds: to annualize the 5% salary increases received on January 1, 1983; to cover increased costs of health insurance; for July 1, 1983 promotion in rank salary increases; to pay scheduled increases in Social Security contributions; for academic computing; for planning the completion of Animal Science Complex (\$375,000) and the Regional College of Veterinary Medicine (\$275,000).

All programs will continue to be critically evaluated and only those faculty positions considered essential will be filled when they come open. Closed faculty positions will be used to fund support positions and provide badly needed operating funds for high priority programs.

The total AES equipment allocation has been maintained and distribution of these funds will be made in early September.

## INDIRECT COST RATES CHANGE

The University has negotiated updated indirect cost rates with the U.S. Department of Health and Human Services effective July 1, 1983. The new rate for the Agricultural Experiment Station is 36.2% instead of the 31.0% in 1981.

The base to be used with the 36.2% rate is modified total direct costs (MTDC). This is defined as all costs except equipment (individual items costing \$500 or more), alterations and renovation of physical facilities, the amount of subgrants or subcontracts in excess of \$25,000 and scholarships or fellowships.

The AES component will be higher than some of the other UNL divisions this year to adjust for over assessments during their previous negotiated rate.

## NEW OR REVISED PROJECTS

### NEB 10-093 - Nebraska Water Allocation Law and Policy

This is a new Hatch project with an effective date of June 1, 1983. **J. D. Aiken** of the Agricultural Economics Department is the principal investigator. The objectives of the project are (1) evaluate existing water allocation policies, including the interaction of ground and surface water allocation policies; (2) develop and evaluate alternative legislative, judicial and administrative policies to resolve water allocation conflicts, particularly conflicts among surface and ground water users; (3) develop and evaluate alternative legislative, judicial and administrative policies to manage water stored underground, and to integrate the use and management of ground and surface water; (4) develop and evaluate alternative legislative, judicial and administrative ground water allocation policies, including ground water depletion and ground water transfer policies.

### NEB 12-001 - Corn Breeding and Genetics

This is a revised Hatch project with an effective date of May 1, 1983. The principal investigator is **W. A. Compton** of the Agronomy Department. The objectives of the project are (1) develop superior corn germ plasm for grain yield and standability; (2) develop germ plasm adapted to Nebraska climate and resistant to disease and insects; (3) study breeding methods; (4) train outstanding graduate students and (5) adapt our breeding program to machine planting and harvesting.

### NEB 12-011 - Properties of Nebraska Soils as Related to Soil Genesis, Classification, Survey and Land Use.

This is a revised Hatch project with an effective date of June 1, 1983. **D. T. Lewis** of the Agronomy Department is the principal investigator. The objectives of the research area (1) make possible accurate classification of a soil; (2) clarify the genesis of a soil; and (3) make possible the accurate interpretations of soil properties for agricultural and urban uses.

### NEB 12-055 - Genetics, Breeding and Evaluation of Common Wheats, Durums and Triticales for Nebraska

This is a revised Hatch project with an effective date of April 21, 1983. The principal investigators are **J. W. Schmidt**, **V. A. Johnson**, and **P. J. Mattern** of the Agronomy Department. The objectives of the research are (1) develop productive, winterhardy, pest-resistant common wheat, durum and triticale populations and lines with acceptable market quality and nutritional value. Evaluate performance of such germplasm and lines in state and regional tests. From regional testing, determine whether materials from other state programs have value for production in Nebraska; (2) develop new approaches for improving the efficiency of breeding methods. Determine the value of new genetic and cytogenetic techniques for gene transfers from related species and genera, including doubled-haploidy and similar techniques. Determine the most effective yield component structure.

### NEB 12-113 - Ontogenetic and Physiological Factors in the Root Bud Development of Three Geophytes

This is a new Hatch project with an effective date of April 5, 1983. The principal investigator is **B. A. Swisher** of the Agronomy Department. The objectives of the project are (1) compare ontogeny of root bud initiation and development in whole plants and cultured roots of leafy spurge (*Euphorbia esula*), Canada thistle (*Cirsium arvense*), and field bindweed (*Convolvulus arvensis*); (2) monitor and evaluate endogenous growth substance concentration in whole plants and cultured morphogenesis of root buds; (3) determine the fate of herbicides in cultured roots and intact plants and (4) evaluate the control of leafy spurge, Canada thistle, and field bindweed in long term studies of selected sites in Nebraska.

### NEB 14-030 - Perinatal Immune Responses During Infectious Diseases in Bovine

This is a new Animal Health project with an effective date of May 24, 1983. Principal investigators are **G. A. Anderson** and **A. Torres-Medina** of Veterinary Science. The objectives of the project are (1) elucidate basic host defense mechanisms during fetal and neonatal periods in the bovine; (2) study pathogenesis and develop better criteria for the recognition of bovine fetal and neonatal diseases; and, (3) provide a basis for recommending ways to prevent and/or control fetal and neonatal diseases in the bovine.

### NEB 15-036 - Factors Limiting Biological Nitrogen Fixation: Leghemoglobin and Nickel

This is a new Hatch project with an effective date of June 1, 1983. The principal investigator is **R. V. Klucas** of the Agricultural Biochemistry Department. The objective of this research is to identify limitations in

biological nitrogen fixation by determining factors that regulate the function of leghemoglobin in soybean root nodules and by determining the role of nickel in leguminous plants.

### NEB 21-021 - Characterization and Genetics of Bacterial Plant Pathogens and Related Bacteria

This is a revised Hatch project with an effective date of July 1, 1983. **A. K. Vidaver** of the Plant Pathology Department is the principal investigator. The objectives of the research are (1) to perform gene transfer experiments, particularly to determine the contribution of plasmids to pathogenicity of plant pathogenic corynebacteria and to competitive success of *Rhizobium japonicum*; (2) to determine epiphytic survival and variability of corn and bean pathogens, and related bacteria in sorghum; (3) to obtain specific antisera for corynebacteria of corn and wheat; and (4) to devise control measures for foliar bacterial pathogens of bean and corn.

### NEB 42-008 - Irrigation Management of Sloping Loess Soils

This is a new Hatch project with an effective date of May 11, 1983. The principal investigator is **T. W. Dorn** of the Northeast Station. The objectives of the research are to develop criteria for successful management of center pivot sprinkler application depths for crop yield response; and (2) determine the effect of various tillage systems on the water infiltration rate, surface storage, and soil erosion potential from steeply sloping loess soils.

## GRANTS AND CONTRACTS

<b>Anderson, B.</b> (Agronomy) - Northrup King Company	1,000
<b>Anderson, B.</b> (Agronomy) - 3M	7,950
<b>Ball, E. M.</b> (Plant Pathology) - Cornell University	880
<b>Brandt, J.R.</b> (Forestry, Fisheries & Wildlife) - Nebr. Railroad Ass'n.	2,460
<b>Burnside, O.C.</b> (Agronomy) - Velsicol Chemical Corporation	500
<b>Burnside, O.C.</b> (Agronomy) - Rhone-Poulenc, Inc.	2,500
<b>Burnside, O.C.</b> (Agronomy) - Ciba-Geigy	1,000
<b>Burnside, O.C.</b> (Agronomy) - American Hoechst Corporation	1,700
<b>Calkins, C.R.</b> (Animal Science) - National Pork Producers Council	7,000
<b>Campbell, J.B.</b> (North Platte Station) - Ciba-Geigy Corporation	3,750
<b>Campbell, J.B.</b> (North Platte Station) - Fearing Manufacturing Company	500
<b>Campbell, J.B.</b> (North Platte Station) - Dow Chemical	2,000
<b>Campbell, J.B.</b> (North Platte Station) - FMC Corporation	500
<b>Case, R.M.</b> (Forestry, Fisheries & Wildlife) - Michigan State University	600
<b>Dickey, E.</b> (Ag Engineering) - Stauffer Chemical Company	8,000
<b>Eldridge, F.</b> (Animal Science) - American Breeders Service	1,800
<b>Fitzgerald, J.B.</b> (Horticulture) - Nor-Am Agricultural Products	500
<b>Flowerday, A.D.</b> (Agronomy) - National Crop Insurance Association	4,000
<b>Flowerday, A.D.</b> (Agronomy) - Grain Processing Corporation	1,600

<b>Frank, K.D.</b> (South Central Station) - Dow Chemical	2,500
<b>Gardner, C.O.</b> (Agronomy) - B.K. Heuerman Farms	2,000
<b>Gardner, C.O.</b> (Agronomy) - Stauffer Chemical Company	2,000
<b>Gold, R.E.</b> (Environmental Programs) - Whitmire Research Laboratories, Inc.	3,000
<b>Gold, R.E.</b> (Environmental Programs) - Merck & Company Inc.	2,500
<b>Hagen, A.F.</b> (Panhandle Station) - Union Carbide Ag. Products	750
<b>Hudson, D.B.</b> (North Platte Station) - Merck & Company	10,000
<b>Hudson, D.B.</b> (North Platte Station) - Ciba-Geigy Corporation	3,750
<b>Johnson, R.L.</b> (Forestry, Fisheries & Wildlife) - Mobay Chemical Corp.	800
<b>Kerr, E.D.</b> (Panhandle Station) - E.I. DuPont DeNemours & Company	1,000
<b>Kerr, E.D.</b> (Panhandle Station) - Nebraska Department of Agriculture	4,000
<b>Kinbacher, E.J.</b> (Horticulture) - Rhone-Poulenc Inc.	600
<b>Klocke, N.L.</b> (North Platte Station) - Stauffer Chemical Corporation	2,500
<b>Lane, L.C.</b> (Plant Pathology) - Cargill	120
<b>Lane, L.C.</b> (Plant Pathology) - Funk Seed International	600
<b>Martin, A.R.</b> (Agronomy) - Dow Chemical Company	1,000
<b>Mattern, P.J.</b> (Agronomy) - USDA-ARS	48,000
<b>Mayo, ZB</b> (Entomology) - Rhone-Poulenc, Inc.	1,500
<b>Mayo, ZB</b> (Entomology) - Ciba-Geigy Corporation	750
<b>Mayo, ZB</b> (Entomology) - USDA/ARS	15,000
<b>Miller, W.L.</b> (Ag Economics) - Wolf Family via UN Foundation	15,130
<b>Moser, L.E.</b> (Agronomy) - UNL Agronomy Club	266
<b>Moomaw, R.S.</b> (Northeast Station) - Ciba-Geigy	500
<b>Moomaw, R.S.</b> (Northeast Station) - ICI Americas	500
<b>Moomaw, R.S.</b> (Northeast Station) - E.I. DuPont DeNemours & Company	1,300
<b>Moomaw, R.S.</b> (Northeast Station) - Shell Development Company	500
<b>Moomaw, R.S.</b> (Northeast Station) - American Hoechst Corporation	1,500
<b>Moomaw, R.S.</b> (Northeast Station) - Rhone-Poulenc, Inc.	1,200
<b>Moomaw, R.S.</b> (Northeast Station) - Monsanto Company	1,000
<b>Moomaw, R.S.</b> (Northeast Station) - Dow Chemical	250
<b>Moomaw, R.S.</b> (Northeast Station) - FMC Corporation	1,000
<b>Norman, J.B.</b> (Agronomy) - NASA-Earth Resources Branch	12,185
<b>O'Keefe, R.B.</b> (Panhandle Station) - Potato Chip/Snack Food Association	3,000
<b>O'Keefe, R.B.</b> (Panhandle Station) - Diamond Shamrock	1,500
<b>Roeth, F.W.</b> (South Central Station) - Rhone-Poulenc, Inc.	1,500
<b>Roeth, F.W.</b> (South Central Station) - Eli Lilly & Company	1,000
<b>Roeth, F.W.</b> (South Central Station) - Ciba-Geigy Corporation	500
<b>Roeth, F.W.</b> (South Central Station) - American Hoechst Corporation	1,500
<b>Roeth, F.W.</b> (South Central Station) - FMC Corporation	500
<b>Rosenberg, N.J., Wilhite, D.A., Hubbard, K.G.</b> (CAMAC) - U.S. Dept. of Commerce - NOAA	34,991
<b>Satterlee, L.D.</b> (Food Science & Technology) - Nebr. Dept. of Economic Development	20,000
<b>Satterlee, L.D.</b> (Food Science & Technology) - General Mills, Inc.	4,000
<b>Shearman, R.C.</b> (Horticulture) - Rhone-Poulenc, Inc.	500
<b>Shearman, R.C.</b> (Horticulture) - PBI/Gordon Corporation	500
<b>Steadman, J.R.</b> (Plant Pathology) - Merck & Company	750
<b>Stetson, L.E.</b> (Ag Engineering) - Cornhusker Public Power District	500
<b>Stetson, L.E.</b> (Ag Engineering) - Panhandle Rural Electric Membership Ass'n.	500
<b>Stetson, L.E.</b> (Ag Engineering) - Southern Nebr. Rural Public Power Dist.	500
<b>Stetson, L.E.</b> (Ag Engineering) - Butler Co. Rural Public Power District	500

<b>Stetson, L.E.</b> (Ag Engineering) - York Co. Rural Public Power District	500
<b>Stetson, L.E.</b> (Ag Engineering) - Cuming County Public Power District	980
<b>Stetson, L.E.</b> (Ag Engineering) - Seward Co. Rural Public Power District	500
<b>Vidaver, A.K.</b> (Plant Pathology) - Frye Hybrids	150
<b>Vidaver, A.K.</b> (Plant Pathology) - NC + Hybrids	150
<b>Watkins, J.E.</b> (Plant Pathology) - Merck & Company, Inc.	750
<b>Watkins, J.E.</b> (Plant Pathology) - Mobay Chemical Corporation	1,200
<b>Wicks, G.A.</b> (North Platte Station) - E.I. DuPont DeNemours & Company	1,000
<b>Wilson, R.G.</b> (Panhandle Station) - Rhone-Poulenc, Inc.	750
<b>Wilson, R.G.</b> (Panhandle Station) - Ciba-Geigy	500
<b>Wilson, R.G.</b> (Panhandle Station) - E.I. DuPont DeNemours & Company	4,000
<b>Wilson, R.G.</b> (Panhandle Station) - Eli Lilly and Company	1,000
<b>Wilson, R.G.</b> , (Panhandle Station) - Dow Chemical	1,000
<b>Wilson, R.G.</b> (Panhandle Station) - Union Carbide Agricultural Products Co.	1,700
<b>Witkowski, J. F.</b> (Northeast Station) - Velsicol Chemical Corporation	1,500
<b>Witkowski, J. F.</b> (Northeast Station) - Abbott Laboratories	500
<b>Witkowski, J. F.</b> (Northeast Station) - ICI Americas, Inc.	750
<b>Witkowski, J. F.</b> (Northeast Station) - Dow Chemical	7,500
<b>Witkowski, J. F.</b> (Northeast Station) - FMC Corporation	1,500
<b>Witkowski, J. F.</b> (Northeast Station) - Stauffer Chemical	700
	<b>\$ 284,812</b>

### PROJECT FUNDING

The following projects were approved by the Nebraska Corn Development, Utilization and Marketing Board for funding for FY 83-84:

<b>C. O. Gardner</b>	Identification of Corn Genetic Types Having Tolerance to Environmental and Biological Stresses with the Aid of Relatively Simple Biochemical and Biophysical Procedures	9,000
<b>M. A. Thomas-Compton</b>		
<b>R. A. Stock</b>	Maximizing the Feeding Value of Corn Fiber	22,600
<b>T. J. Klopfenstein</b>		
<b>R. Britton</b>		
<b>T. J. Klopfenstein</b>	Corn Steep Liquor as a Protein Source for Ruminants	15,000
<b>R. Britton</b>		
<b>C. E. Walker</b>	Multi-Disciplinary Corn Utilization Research	71,180
<b>L. D. Satterlee</b>		
<b>M. A. Hanna</b>		
<b>E. C. Dickey</b>		
<b>P. J. Mattern</b>		
<b>W. A. Compton</b>		
<b>A. R. Martin</b>		
<b>R. L. Ogden</b>		
<b>J. G. Kendrick</b>		
<b>Z B Mayo</b>		
<b>C. E. Walker</b>	Increasing the Nutritional Quality of Corn Gluten Meal	15,700
<b>L. D. Satterlee</b>		
<b>J. G. Kendrick</b>		
<b>C. A. Long</b>	Flavor Modification of Corn Germ	11,550
<b>C. E. Walker</b>	Optimization of Corn and Whey Cofermentation	14,981
<b>K. M. Shahani</b>		
<b>K. D. Frank</b>	Save Production Costs - Utilize Left Over Nitrogen	2,000
<b>J. S. Schepers</b>		

<b>W. E. Splinter</b>	Corn-Sorghum Construction Board Product	20,000
<b>L. Tao</b>		

The following projects were approved by the Nebraska Wheat Board for funding for FY 83-84:

<b>P. J. Mattern</b>	Selecting Nebraska Wheats to Meet the Processing Needs of Domestic and Foreign Markets	19,000
<b>J. W. Schmidt</b>		
<b>V. A. Johnson</b>		
<b>J. W. Schmidt</b>	Improving Wheat for Nebraska	18,000
<b>V. A. Johnson</b>		
<b>P. J. Mattern</b>		
<b>M. G. Boosalis</b>	Development of Cultural Practices for Control of Cephalosporium Stripe	15,000
<b>J. W. Schmidt</b>		
<b>G. A. Wicks</b>		
<b>G. W. Hergert</b>	Effect of Sprinkler Irrigation on Winter Wheat Varieties	4,000
<b>P. H. Grabowski</b>		
<b>D. H. Sander</b>		
<b>J. A. Smith</b>	Effect of Residue Placement for Reduced Tillage Wheat Seeders on Winter Wheat Plant Development	2,800
<b>L. A. Nelson</b>		
<b>L. A. Nelson</b>	Response of Wheat Varieties with Different Height and Winter Hardiness to No-Till Cropping	3,650

The following projects were approved by the Nebraska Grain Sorghum Development, Utilization and Marketing Board for funding for FY 83-84:

<b>S. B. Verma</b>	Understanding Sorghum and Its Microclimate: A Basis for Developing Better Management Practices to Improve Yield and Water Use Efficiency	11,690
<b>N. J. Rosenberg</b>		
<b>C. Y. Sullivan</b>		
<b>M. D. Clegg</b>		
<b>J. D. Eastin</b>	Screening for Drought Resistance in Sorghum	3,000
<b>C. Y. Sullivan</b>		
<b>C. A. Francis</b>		
<b>L. A. Klepper</b>	Use of Sorghum Grain Particles to Economically Produce Controlled-Release Type Herbicide Granules	9,700
<b>M. D. Clegg</b>	Response of Tropically and Temperately Adapted Grain Sorghum Grown Under Minimum Tillage Conditions with Different Irrigation Levels	6,600
<b>J. D. Eastin</b>		
<b>J. W. Maranville</b>		
<b>C. A. Francis</b>	Improving Low Temperature Germination and Early Vigor in Ecofallow	9,000
<b>J. D. Eastin</b>		
<b>L. A. Nelson</b>		
<b>D. R. Brink</b>	Evaluation and Improvement of the Feeding Value of Grain Sorghum in Beef Finishing Rations	16,500
<b>R. A. Stock</b>		
<b>R. Britton</b>		
<b>T. J. Klopfenstein</b>	Protein Value of Milo Distillers Grains for Beef Calves	13,800
<b>R. Britton</b>		
<b>J. K. Ward</b>	Animal Evaluation of Forage Remaining After Harvest of Early and Late Maturing Grain Sorghum	9,500
<b>H. J. Gorz</b>		
<b>F. A. Haskins</b>		
<b>W. M. Ross</b>		
<b>E. A. Dickason</b>	Determination of the Economic Injury Level of Biotype E Greenbugs to Resistant Grain Sorghum Hybrids	10,850
<b>S. D. Kindler</b>		

<b>C. E. Walker</b>	A Sorghum-Based Breakfast Cereal	11,820
<b>P. T. Nordquist J. E. Partridge</b>	Later Season Selection of Sorghum for Improved Stalk Strength	16,000
<b>D. M. Danielson P. T. Nordquist</b>	Comparative Feeding Value of Sorghum Plant Lines and Selected Hybrids When Fed to Growing-Finishing Pigs	7,500
<b>G. A. Wicks</b>	Weed Control in Continuous No-Till Sorghum	4,750

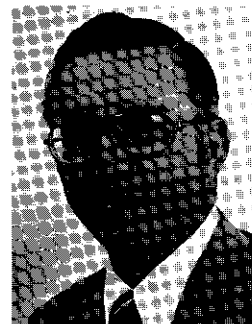
<b>R. S. Moomaw D. P. Shelton</b>	Soybean Production Practices for Sandy Soils in Northeast Nebraska	5,320
<b>E. J. Penas R. W. Elmore P. H. Grabouski</b>	Soybean Variety Evaluation on High pH Soils	12,500
<b>A. K. Vidaver</b>	Genetic Engineering of "Super" Nitrogen Fixers	19,050
<b>G. A. Wicks</b>	Black Night Shade Control in Soybeans	4,625
<b>R. W. Elmore D. E. Eisenhauer J. E. Specht J. H. Williams</b>	Soil Moisture Depletion versus Growth Stage As Scheduling Criteria for Sprinkler Irrigation Management in Soybeans	15,000

The following projects were approved by the Nebraska Soybean Development, Utilization and Marketing Board for funding for FY 83-84:

<b>M. A. Hanna J. L. Schinstock</b>	Performance of Soybean Oil as a Diesel Fuel	11,120
<b>R. V. Klucas</b>	Factors Limiting Nitrogen Fixation in Soybeans: Functional Leghemoglobin	10,100
<b>F. W. Wagner</b>	Metabolic Changes During Dark-Induced Reversible Senescence of Soybean Root Nodules	11,627
<b>L. H. Lutgen</b>	Soybean Production Costs and Marketing Alternatives	13,350
<b>E. C. Dickey D. P. Shelton</b>	Soil Erosion in Relation to Soybean Production	29,100
<b>B. L. Blad</b>	Soybean Growth and Yields on Sandy and Silty Clay Loam Soils: Influence of Water Stress and/or Pubescence	16,645
<b>A. D. Flowerday D. Martin G. E. Meyer J. E. Specht</b>	Increasing Water Use Efficiency of Determinate and Indeterminate Soybean Varieties Under Sprinkler Irrigation	14,650
<b>M. D. Clegg E. J. Penas</b>	Efficient Nitrogen Use by Sorghum Following Soybeans in Rotation	10,100
<b>J. H. Williams J. E. Specht</b>	Development of Improved Soybean Varieties for Nebraska	15,000
<b>L. A. Klepper</b>	Evaluation of the Effectiveness and Safety of Soybean Oil as a Carrier for Postemergence Herbicides	7,450
<b>O. C. Burnside</b>	Selective Control of Velvetleaf in Soybeans	11,000
<b>T. J. Klopfenstein</b>	The Practical Value of Soy Hulls in Beef Production	13,300
<b>R. Britton T. J. Klopfenstein L. D. Satterlee</b>	Altering Rumen Degradability of Soy Proteins	17,750
<b>F. G. Owen L. L. Larson</b>	Optimizing Soybean Utilization in Dairy Rations	9,000
<b>L. D. Satterlee</b>	Characterization and Elimination of the Possible Iron Binding Site(s) in Soy Proteins	7,555
<b>C. E. Walker</b>	Expanded Soymeal Utilization	7,200

## Experiment Station Personnel

**Kenneth D. Frank**, Associate Professor of Agronomy at South Central Station, spent nine months on a faculty development leave in the Department of Agronomy at Kansas State University. He audited courses and participated in soil fertility and crop production meetings with area and state extension agronomist. Although some of the soil and fertility problems in Kansas are different from those in Nebraska, he noted several areas where the two states share mutual conditions. He concluded that there are several areas where closer communication between the states relative to extension and research planning could avoid costly duplication and enhance program effectiveness. In his estimation it was a truly enjoyable and stimulating experience that should prove beneficial to him in the future.



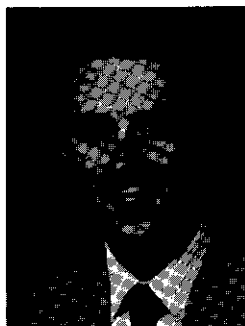
**Lowell D. Satterlee**, Head, Department of Food Science and Technology. Dr. Satterlee is a native of Minnesota. He received his B.S. from South Dakota State, M.S. and Ph.D. from Iowa State. Upon joining the staff at Nebraska, Dr. Satterlee set up a research program to study nonconventional protein resources, and methods for evaluating protein quality for eventual human food use. In June, 1976, he received the Samuel Cate Prescott Award by the Institute of Food Technologists as the Outstanding Young Research Scientist and in June, 1977, he was named an Outstanding Young Alumnus by Iowa State University. In April, 1979, Dr. Satterlee was presented the Distinguished Teaching Award by the University of Nebraska. He assumed his new responsibilities as Department Head on July 1, 1983.



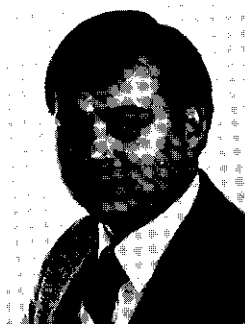
**R. Gene White**, Interim Head, Department of Veterinary Science. Dr. White is a native of West Virginia and earned his B.S. and D.V.M. from Oklahoma State and his M.S. from Nebraska. Dr. White was in private practice from 1960 through 1964. From 1964 through 1968 he was employed by the Chemagro Corporation of Kansas City, Missouri. He began employment with the University North Platte Station in 1969 and in 1976 was appointed Director. In 1979 he was appointed Administrator, Animal Health Service and Leader, Extension Veterinary Medicine, at Mississippi State University. Dr. White returned to the University of Nebraska in September of 1982 as Program Coordinator-Regional College of Veterinary Medicine and Professor of Vet Science. Dr. White assumed his new responsibilities on July 1, 1983.



**Elton D. Aberle**, Head, Department of Animal Science. Dr. Aberle is a native of Kansas and earned his B.S. at Kansas State, M.S. and Ph.D. from Michigan State. Dr. Aberle comes to us from the Animal Science Department at Purdue University. Dr. Aberle is an active member of the American Society of Animal Science, Institute of Food Technologists, and the American Meat Science Association where he is President-Elect. Dr. Aberle has received many awards and honors; among them the Outstanding Teaching Award, Reciprocal Meat Conference. Dr. Aberle begins his employment with the University on August 1, 1983.



**Jim Robb**, Farm Management Specialist, Agricultural Economics Department, Panhandle Station. Dr. Robb is a California native. He received his B.S. from the University of California-Davis, M.S. and Ph.D. from Michigan State. Dr. Robb's graduate program included a study of production and marketing alternatives for Michigan feedlots and watershed research on the trade-offs between net farm income, soil loss and flood damage associated with the various crop tillage and management practices. Dr. Robb assumed his new position May 1, 1983.



**Joan Laughlin**, Head, Department of Textiles, Clothing and Design. Dr. Laughlin is a native of Iowa. She received her B.S. from the College of St. Mary, M.S. from Iowa State and Ph.D. from Penn State. Dr. Laughlin has received many honors. In 1982, she received the University of Nebraska Foundation Distinguished Teaching Award. She has also received the Sigma Phi Sigma National Scholastic Honorary, Sigma Xi Professional Research Honor Society. Dr. Laughlin came to the University in 1974 as an Assistant Professor and on July 1, 1983 became Department Head.

