

ANNUAL REPORT, 1981

Financial Statement North Dakota Agricultural Experiment Station July 1, 1980 to July 30, 1981

OPERATIONS	Balance 7-1-80	Receipts	Expenditures	Transfer	Balance 6-30-81	Salaries	Operating Expense	Equipment
Main Station								
State Appropriation	\$ 268,189.06	6,888,674.28	\$7,069,466.36	\$ -0-	\$ 87,396.98	\$5,202,633.52	\$1,324,251.12	\$ 542,581.72
Federal Appropriations CR, USDA	(860,259.54)	2,193,277.33	1,793,427.76	-0-	(460,409.97)	1,707,488.43	85,719.71	219.62
Sales & Service	745,541.23	926,352.33	928,473.90	-0-	743,419.66	212,149.10	661,500.91	54,823.89
Gifts & Grants	605,387.09	2,263,493.84	2,186,826.88	20,245.61	702,299.66	1,606,336.58	494,957.08	85,533.22
TOTAL Main Station	\$ 758,857.84	\$12,271,797.78	\$11,978,194.90	\$ 20,245.61	\$1,072,706.33	\$8,728,607.63	\$2,566,428.82	\$ 683,158.45
Branch Stations	368,602.66	2,376,411.62	1,852,325.93	15,239.35	907,927.70	916,507.42	661,153.20	274,665.31
TOTAL Operations	\$1,127,460.50	\$14,648,209.40	\$13,830,520.83	\$ 35,484.96	\$1,980,634.03	\$9,645,115.05	\$3,227,582.02	\$ 957,823.76
LAND AND STRUCTURES								
Main Station	\$ 4,044.06	\$ 2,002,512.90	\$1,925,880.36	\$-0-	\$ 80,676.60			
State Appropriations								
Branch Stations	-0-	28,294.56	28,294.56	-0-	-0-			
State Appropriations								
TOTAL Land & Structures	4,044.06	\$ 2,030,807.46	\$1,954,174.92	-0-	\$ 80,676.60			
GRAND TOTAL:								
Operations, Land & Structures	\$1,131,504.56	\$16,679,016.86	\$15,784,695.75	\$ 35,484.96	\$2,061,310.63			

PROFESSIONAL STAFF
AGRICULTURAL EXPERIMENT STATION
NORTH DAKOTA STATE UNIVERSITY
OF AGRICULTURE AND APPLIED SCIENCE
(as of June 30, 1981)

STATE BOARD OF HIGHER EDUCATION: Lester M. Stern, President, Wahpeton; Milton Hertz, Vice President, Mott; Mrs. E. G. (Geraldine) Clapp, Jr., Fargo; Mrs. William (Jean) Guy, Bismarck; Mrs. Irvin (Carol) Jacobson, Alamo; Jim Larson, Grand Forks; Gene Martin, Grand Forks; Mr. Bryce Streibel, Fessenden; Dr. Kent G. Alm, Commissioner, Bismarck.

CONSULTATION BOARD for the Experiment Station and the Extension Service to the State Board of Higher Education: Clarence Sande, Chairman, Grand Forks; Judy DeWitz, Tappen; Roger W. Klusman, New Salem; George Smith, Fargo; Wesley O. Tossett, Lansford.

ADMINISTRATION: L. D. Loftsgard, Ph.D., President⁰; H. Don Stockman, M.S., Vice President for Business and Finance³⁵; H. Roald Lund, Ph.D., Director⁶⁵; Donald E. Anderson, Ph.D., Associate Director⁹⁰; James B. Swank, A.B.A., Administrative Officer⁹⁰.

AGRICULTURAL COMMUNICATIONS (Cooperative Extension Service): Fowler C. Humphrey, Ph.D., Associate Professor⁹⁰; James A. Berg, M.S., Associate Professor⁹⁰; John J. Feight, M.S., Associate Professor⁹⁰; James R. Kenward, M.S., Associate Professor⁹⁰; Gary Moran, M.S., Associate Professor⁹⁰; Steven C. Stark, M.A., Assistant Professor⁹⁰.

AGRICULTURAL ECONOMICS: Donald F. Scott, Ph.D., Professor and Chairman⁷⁰; Craig Chase, M.S., Research Assistant¹⁰⁰; Robert A. Chase, M.S., Research Assistant¹⁰⁰; David W. Cobia, Ph.D., Professor³⁵; Gary V. Cole, M.S., Research Assistant¹⁰⁰; Edward V. Dunn, M.S., Associate Professor⁷⁵; Gordon W. Erlandson, Ph.D., Professor⁹⁰; John M. Halstead, M.S., Research Assistant¹⁰⁰; Delmer L. Helgeson, Ph.D., Professor⁹⁰; Thor A. Hertsgaard, Ph.D., Professor³⁰; Jerome E. Johnson, Ph.D., Professor⁷⁰; Roger G. Johnson, Ph.D., Professor⁶⁰; Daniel E. Kerestes, B.S., Research Assistant¹⁰⁰; Won W. Koo, Ph.D., Associate Professor⁹⁰; F. Larry Leistritz, Ph.D., Professor⁶⁰; Jay A. Leitch, Ph.D., Assistant Professor¹⁰⁰; Lawrence E. Mack, Ph.D., Assistant Professor³⁵; John F. Mittleider, M.S., Research Associate¹⁰⁰; William C. Nelson, Ph.D., Professor⁷⁰; Glenn D. Pederson, Ph.D., Assistant Professor⁶⁰; Timothy A. Petry, M.S., Associate Professor³⁵; Richard W. Rathge, Ph.D., Assistant Professor³⁵; David M. Saxowsky, J.D., Assistant Professor¹⁰⁰; LeRoy W. Schaffner, M.S., Professor¹⁰⁰; Eldon Schriener, Ph.D., Professor²⁰; Donald E. Thomson, M.S., Instructor⁷⁰; Harvey G. Vreugdenhil, M.S., Research Associate¹⁰⁰; William W. Wilson, Ph.D., Assistant Professor⁶⁰; Gene Griffin, M.S., Director, Upper Great Plains Transportation Inst.⁰.

AGRICULTURAL EDUCATION: Donald W. Priebe, Ph.D., Professor and Chairman²⁰.

AGRICULTURAL ENGINEERING: George L. Pratt, Ph.D., Professor and Chairman⁶⁰; Leslie F. Backer, M.S., Assistant Professor⁷⁰; Vernon A. Borgen, Jr., B.S., Research Assistant¹⁰⁰; Lowell A. Disrud, M.S., Assistant Professor⁶⁰; Kenton R. Kaufman, M.S., Assistant Professor⁷⁵; Henry L. Kucera, M.S., Professor³⁰; James A. Lindley, Ph.D., Associate Professor⁶⁵; Charles Moilanen, M.S., Professor³⁵; Larry J. Roehl, M.S., Research Associate¹⁰⁰; Elton G. Solseng, M.S., Instructor⁹⁰; Earl C. Stegman, Ph.D., Professor⁷⁵; Jon R. Walter, M.S., Research Associate¹⁰⁰; Richard L. Witz, M.S., Professor⁶⁰; Mariusz Ziejewski, M.S., Research Associate¹⁰⁰; Roger H. Cossette, M.S., Professor (Cooperative Extension Service)⁰.

AGRONOMY: Jack F. Carter, Ph.D., Professor and Chairman⁶⁰; William L. Alexander, Ph.D., Research Associate¹⁰⁰; Roy G. Cantrell, Ph.D., Assistant Professor³⁵; Harold Z. Cross, Ph.D., Associate Professor³⁵; Edward L. Deckard, Ph.D., Associate Professor⁷⁵; A. Earl Foster, Ph.D., Professor³⁵; J. D. Francowiak, Ph.D., Associate Professor⁶⁰; Richard C. Frohberg, Ph.D., Professor³⁵; Kenneth F. Grafton, Ph.D., Assistant Professor¹⁰⁰; James J. Hammond, Ph.D., Professor⁹⁰;

An Hang, Ph.D., Research Associate¹⁰⁰; Kenneth D. Kofoid, Ph.D., Assistant Professor³⁵; Karl A. Lucken, Ph.D., Professor¹⁰⁰; Rodney G. Lym, Ph.D., Assistant Professor¹⁰⁰; S. S. Maan, Ph.D., Professor³⁵; H. Allan Mann, Ph.D., Assistant Professor³⁵; Michael McMullen, Ph.D., Assistant Professor³⁵; Calvin G. Messersmith, Ph.D., Professor³⁵; Dwain W. Meyer, Ph.D., Associate Professor⁷⁵; Stephen D. Miller, Ph.D., Associate Professor⁹⁰; John D. Nalewaja, Ph.D., Professor⁹⁰; Albert A. Schneiter, Ph.D., Associate Professor⁹⁰; Arnold B. Schooler, Ph.D., Professor¹⁰⁰; Paul Sebasta, Ph.D., Assistant Professor³⁵; Glen C. Weiser, Ph.D., Assistant Professor²⁵; Dean A. Whited, Ph.D., Professor²⁵; Reed E. Barker, Ph.D., Adjunct Professor, USDA (Mandan)⁰; Darrell F. Cole, Ph.D., Adjunct Professor, USDA⁰; Leonard R. Joppa, Ph.D., Adjunct Professor, USDA⁰; Jerry F. Miller, Ph.D., Adjunct Professor, USDA⁰; William W. Roath, Ph.D., Adjunct Professor, USDA⁰; Richard H. Shimabukuro, Ph.D., Adjunct Professor, USDA⁰; Norman D. Williams, Ph.D., Adjunct Professor, USDA⁰.

ANIMAL SCIENCE: Clayton N. Haugse, M.S., Professor and Chairman⁹⁰; Paul T. Berg, Ph.D., Assistant Professor⁷⁰; Russell B. Danielson, M.S., Associate Professor⁷⁰; William E. Dinusson, Ph.D., Professor⁶⁰; Charles G. Edgerly, M.S., Associate Professor⁹⁰; Duane O. Erickson, Ph.D., Professor⁷⁰; Gerald M. Erickson, B.S., Instructor⁹⁰; George R. Fisher, Ph.D., Professor²⁰; Robert L. Harrold, Ph.D., Professor⁷⁰; John N. Johnson, M.S., Professor³⁰; Ladon J. Johnson, Ph.D., Professor⁶⁰; Robert L. Johnson, M.S., Associate Professor⁴⁵; Verlin K. Johnson, Ph.D., Professor⁶⁰; Merle R. Light, M.S., Professor⁷⁰; Wesley R. Lime-sand, B.S., Instructor⁹⁰; Michael W. Lund, M.S., Instructor⁹⁰; Martin J. Marchello, Ph.D., Associate Professor³⁵; Alva D. Mitchell, Ph.D., Research Associate¹⁰⁰; Bert L. Moore, Ph.D., Assistant Professor⁶⁰; Chung Sun Park, Ph.D., Assistant Professor⁹⁰; William D. Slinger, Ph.D., Associate Professor⁹⁰; Craig B. Struble, Ph.D., Research Associate¹⁰⁰; James E. Tilton, Ph.D., Professor⁷⁰; Gary L. Williams, Ph.D., Assistant Professor⁹⁰; Ronald C. Zimprich, B.S., Instructor⁹⁰; Peter W. Aschbacher, Ph.D., Adjunct Professor, USDA⁰; Kenneth L. Davison, Ph.D., Adjunct Professor, USDA⁰.

BACTERIOLOGY: Kenneth J. McMahon, Ph.D., Professor and Chairman⁹⁰; David L. Berryhill, Ph.D., Associate Professor³⁵; Mary C. Bromel, Ph.D., Professor³⁰; Berdell R. Funke, Ph.D., Professor³⁰; David A. Gabrielson, Ph.D., Assistant Professor⁹⁰; Bayard P. Sleeper, Ph.D., Professor³⁰; Gerard J. Obert, M.D. Adjunct Professor⁹⁰; Edward D. Renner, Ph.D., Adjunct Professor⁹⁰.

BIOCHEMISTRY: H. J. Klosterman, Ph.D., Professor and Chairman⁶⁵; Achyuta Chaudhuri, Ph.D., Research Associate¹⁰⁰; Allan G. Fischer, Ph.D., Professor⁶⁰; James R. Fleeker, Ph.D., Professor⁷⁰; George Graf, Ph.D., Professor⁶⁵; Eric B. Jang, Ph.D., Research Associate¹⁰⁰; S. Derek Killilea, Ph.D., Assistant Professor⁶⁰; Leslie J. Lovett, B.S., Research Assistant¹⁰⁰; Arland E. Oleson, Ph.D., Associate Professor⁶⁰; Brady A. Vick, Ph.D., Research Biochemist, USDA⁰; Don C. Zimmerman, Ph.D., Adjunct Professor, USDA⁰.

BOTANY: Harold Goetz, Ph.D., Professor and Chairman⁵⁰; William T. Barker, Ph.D., Professor⁶⁰; Murray E. Duysen, Ph.D., Professor³⁵; Thomas P. Freeman, Ph.D., Professor³⁰; Donald S. Galitz, Ph.D., Professor³⁵; Donald Kirby, Ph.D., Assistant Professor⁹⁰; Paul E. Nyren, M.S., Associate Botanist¹⁰⁰; Dean E. Williams, M.S., Assistant Animal Husbandman¹⁰⁰.

CEREAL CHEMISTRY AND TECHNOLOGY: Orville J. Banasik, M.S., Professor and Chairman³⁵; Bert D'Appolonia, Ph.D., Professor⁹⁰; Joel W. Dick, Ph.D., Associate Professor³⁵; Khalil Khan, Ph.D., Assistant Professor⁹⁰; Linda A. MacArthur, M.S., Instructor⁹⁰; Clarence McDonald, Ph.D., Professor⁹⁰; Richard E. Pyle, Ph.D., Associate Professor⁹⁰; Donald W. Lillard, Jr., Ph.D., Adjunct Professor, USDA⁰; Vernon L. Youngs, Ph.D., Adjunct Professor, USDA⁰.

CHILD DEVELOPMENT AND FAMILY RELATIONS: Ann K. Mullis, Ph.D., Assistant Professor²⁰; Ronald L. Mullis, Ph.D., Assistant Professor²⁰.

ENTOMOLOGY: John T. Schulz, Ph.D., Professor and Chairman⁷⁰; Albin W. Anderson, Ph.D., Associate Professor⁹⁰; Edward U. J. Balsbaugh, Jr., Ph.D., Associate Professor⁶⁰; John D. Busacca, Ph.D., Assistant Professor⁹⁵; Robert B. Carlson, Ph.D., Professor⁷⁵; Richard D. Frye, Ph.D., Professor⁴⁵; Hendrik J. Meyer, Ph.D., Assistant Professor⁹⁰; Gregory B. Mulkern, Ph.D., Professor⁴⁵; Christian Y. Oseto, Ph.D., Associate Professor⁹⁰; Walter D. Valovage, Ph.D., Research Associate¹⁰⁰; Terrance S. Adams, Ph.D., Adjunct Professor, USDA⁰; Laurence D. Charlet, Ph.D., Research Entomologist, USDA⁰; Leo E. LaChance, Ph.D., Adjunct Professor, USDA⁰; Edwin P. Marks, Ph.D., Adjunct Professor, USDA⁰; Ian C. McDonald, Ph.D., Adjunct Professor, USDA⁰; David T. North, M.S., Adjunct Professor, USDA⁰; John G. Riemann, Ph.D., Adjunct Professor, USDA⁰.

FOOD AND NUTRITION: Mark L. Dreher, Ph.D., Assistant Professor¹⁰⁰; Edna T. Holm, M.S., Assistant Professor⁴⁰.

HORTICULTURE AND FORESTRY: Neal S. Holland, M.S., Professor and Acting Chairman⁷⁰; Robert H. Heintz, B.S., Associate Professor⁴⁰; Dale E. Herman, Ph.D., Professor⁹⁰; Robert H. Johansen, Ph.D., Professor¹⁰⁰; Donald C. Nelson, Ph.D., Professor⁴⁰; Earl W. Scholz, Ph.D., Associate Professor⁷⁵; Daniel M. Solien, B.L.A., Assistant Professor⁷⁵; Paul H. Orr, B.S., Adjunct Professor, USDA (East Grand Forks, Minnesota)⁰; Joseph R. Sowokinos, Ph.D., Adjunct Professor (East Grand Forks, Minnesota)⁰; Jerry L. Varns, Ph.D., Adjunct Professor, USDA (East Grand Forks, Minnesota)⁰.

PLANT PATHOLOGY: Richard Kiesling, Ph.D., Professor and Chairman⁹⁰; Robert M. Hosford, Jr., Ph.D., Professor⁹⁰; Larry J. Littlefield, Ph.D., Professor⁹⁰; Berlin D. Nelson, Jr., Ph.D., Assistant Professor⁹⁰; Vernyl D. Pederson, Ph.D., Professor⁹⁰; Gary A. Secor, Ph.D., Assistant Professor⁹⁰; Robert W. Stack, Ph.D., Associate Professor⁹⁰; Glen D. Statler, Ph.D., Professor⁹⁰; James R. Venette, Ph.D., Associate Professor⁹⁰; James A. Walla, M.S., Instructor¹⁰⁰; William M. Bugbee, Ph.D., Adjunct Professor, USDA⁰; Thomas J. Gulya, Jr., Ph.D., Adjunct Professor, USDA⁰; James D. Miller, Ph.D., Adjunct Professor, USDA⁰; Roland G. Timian, Ph.D., Adjunct Professor, USDA⁰.

SOILS: Joseph C. Zubriski, Ph.D., Professor and Interim Chairman⁴⁵; James L. Arndt, B.S., Research Assistant¹⁰⁰; Lynn J. Brun, Ph.D., Associate Professor⁴⁵; William C. Dahnke, Ph.D., Professor¹⁰⁰; Edward J. Deibert, Ph.D., Assistant Professor⁴⁵; John W. Enz, Ph.D., Assistant Professor⁹⁰; Joseph F. Giles, Ph.D., Assistant Professor⁴⁰; Robert J. Goos, Ph.D., Assistant Professor⁴⁰; David G. Hopkins, B.S., Instructor¹⁰⁰; Brian E. Johnson, B.S., Instructor¹⁰⁰; Jay K. Larsen, B.S., Research Assistant¹⁰⁰; Dean A. Lizotte, B.S., Research Assistant¹⁰⁰; Alexandru Maianu, Ph.D., Associate Professor⁴⁵; John T. Moraghan, Ph.D., Professor⁴⁵; Hollis W. Omodt, M.S., Professor¹⁰⁰; Donald D. Patterson, M.S., Associate Professor¹⁰⁰; Lyle D. Prunty, Ph.D., Assistant Professor⁴⁰; Jimmie L. Richardson, Ph.D., Associate Professor⁷⁰; Francis J. Sobolik, M.S., Assistant Animal Husbandman³⁰; Michael D. Sweeney, M.S., Associate Professor¹⁰⁰; Larry J. Swenson, M.S., Instructor¹⁰⁰; Armand Bauer, Ph.D., Adjunct Professor, USDA (Mandan)⁰; A. L. Black, M.S., Adjunct Professor, USDA (Mandan)⁰; Donald G. Harris, Ph.D., Adjunct Professor, USDA (Mandan)⁰; Stephen D. Merrill, Ph.D., Adjunct Professor, USDA (Mandan)⁰; George A. Reichman, M.S., Adjunct Professor, USDA (Mandan)⁰.

TEXTILES AND CLOTHING: Coila M. Janecek, M.S., Professor²⁵; Helen Lunde, M.S., Assistant Professor²⁰.

VETERINARY SCIENCE: Kenneth J. McMahon, Ph.D., Acting Chairman³⁰; Arnold D. Alstad, D.V.M., Associate Professor¹⁰⁰; Myron F. Andrews, D.V.M., Professor⁴⁰; Ivan E. Berg, D.V.M., Professor¹⁰⁰; Howard H. Casper, Ph.D., Associate Professor⁴⁵; Allan C. Peterson, D.V.M., Assistant Professor¹⁰⁰; Ithel A. Schipper, D.V.M., Professor⁶⁰; George E. Staples, D.V.M., Associate Professor⁹⁰; Donald K. Christian, D.V.M., Adjunct Professor⁹⁰; Gary R. Christian, D.V.M., Adjunct Professor⁹⁰; Merrill J. Reinhillier, D.V.M., Adjunct Professor⁹⁰; Daniel P. Treat, D.V.M., Adjunct Professor⁹⁰.

LAND RECLAMATION RESEARCH CENTER: Eugene C. Doll, Ph.D., Superintendent¹⁰⁰; F. Scott Carter, B.S., Research Assistant¹⁰⁰;

Gary A. Halvorson, Ph.D., Research Associate¹⁰⁰; Stephan A. Schroeder, Ph.D., Research Associate¹⁰⁰; Nyle Wollenhaupt, M.S., Research Associate¹⁰⁰.

BRANCH STATIONS

AGRONOMY SEED FARM: LeRoy A. Spilde, Ph.D., Superintendent¹⁰⁰.

CARRINGTON: Howard M. Olson, M.S., Superintendent¹⁰⁰; Vernon L. Anderson, M.S., Assistant Animal Husbandman¹⁰⁰; John C. Gardner, M.S., Assistant Animal Husbandman¹⁰⁰; Ronald F. Meyer, B.S., Assistant Animal Husbandman¹⁰⁰.

DICKINSON: Thomas J. Conlon, M.S., Superintendent¹⁰⁰; Douglas G. Landblom, M.S., Assistant Animal Husbandman¹⁰⁰; James L. Nelson, B.S., Animal Husbandman¹⁰⁰.

HETTINGER: Timothy C. Faller, M.S., Superintendent¹⁰⁰.

LANGDON: Robert E. Nowatzki, B.S., Superintendent¹⁰⁰.

NORTH CENTRAL: Ben K. Hoag, M.S., Superintendent¹⁰⁰; John R. Lukach, M.S., Assistant Animal Husbandman¹⁰⁰.

WILLISTON: Ernest W. French, M.S., Superintendent¹⁰⁰; Neil R. Riveland, M.S., Assistant Animal Husbandman¹⁰⁰.

The small superscript after each title indicates the percent of the salary paid by the Agricultural Experiment Station. The superscript zero indicates the entire salary is paid by some state or federal agency, usually the United States Department of Agriculture.

GIFTS AND GRANTS

Numerous grants of money and gifts of equipment, supplies, and other services are provided the North Dakota Agricultural Experiment Station each year in support of its research program. The Station expresses its sincere thanks to the following for the support provided during Fiscal year 1981.

3M Commercial Chemicals Division
Abbott Laboratories
Academiae Scientiarum Estoniae
Agricultural Experiment Station, Oregon State University
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 Farmers Union Grain Terminal Association
 Federal Crop Insurance Corporation
 Federal Grain Inspection Service, USDA
 First National Bank—Oakes/Ellendale
 Fish and Wildlife Service, Department of the Interior
 Flower Power, Incorporated
 Forest Service, USDA
 Forrest Keeling Nursery, Incorporated
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 Geological Survey, Department of Interior
 Goldsmith Seeds
 Grants Administration Management Office, USDA
 Great Plains Produce Association
 Gustafson, Incorporated
 Hawley Troxell Ennis and Hawley
 Hollar and Company
 I. C. I. Americas, Incorporated
 Interstate Seed and Grain Company
 The Institute of Paper Chemistry
 Iowa State University
 Jewell Nursery
 Joseph Harris Seed Company
 Kocide Chemical Corporation
 Lee Nursery
 Lew's Nursery
 Longenecker Horticultural Gardens, University of Wisconsin
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 Minnesota Wheat Research and Promotion Council
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 Mobil Chemical Company
 Monrovia Nursery Company
 Monsanto Company
 Morden Research Station
 Morris Arboretum
 National Arboretum
 National Crop Insurance Association
 National Institute of Health
 National Macaroni Manufacturer's Association
 National Meat Association
 The New York Botanical Garden—Cary Arboretum
 Nitragin Company
 Nor-Am, Incorporated
 Nodak Rural Electric Cooperative, Incorporated
 North Central Plant Introduction Station
 North Central Regional Center
 North Dakota Agricultural Association
 North Dakota Beef Cattle Improvement Association
 North Dakota Beef Commission
 North Dakota Beekeepers Association
 North Dakota Business and Industrial Development Department
 North Dakota Department of Agriculture
 North Dakota Farm Bureau
 North Dakota Farmers Union
 North Dakota Game and Fish Department
 North Dakota Grain Dealers Association
 North Dakota Highway Department
 North Dakota Lamb and Wool Producers Association
 North Dakota Legislative Council
 North Dakota Migrant Council
 North Dakota Nurserymen Association
 North Dakota Pork Producers Council
 North Dakota Power Use Council
 North Dakota Public Service Commission
 North Dakota Regional Environmental Assessment Program (REAP)
 North Dakota Soil Conservation Commission
 North Dakota State Board for Vocational Education
 North Dakota State Commissioner of University and School Lands
 North Dakota State Water Commission
 North Dakota State Wheat Commission
 North Dakota Sunflower Council
 North Dakota Weather Modification Board
 Northern Great Plains Research Center
 Northrup King and Company
 NUCON, Inc.
 Nursery Crops Research Laboratory
 Ohio Agricultural Research and Development Center
 Old Dutch Foods, Incorporated
 Old West Regional Commission, Department of Commerce
 PFRA Nursery
 PPG Industries, Incorporated
 Pacific Oil Seeds, Incorporated
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 Pillsbury—Potato Grant
 Pioneer Hi-Bred International, Incorporated
 Potash and Phosphate Institute
 Potato Chip Snack Food Association
 Purdue University
 Red River Edible Bean Growers Association
 Red River Valley Potato Growers Association
 Rohm & Haas Company
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 Schering Corporation
 Seedtec International
 Shell Development Company
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 The Siebenthaler Company
 Skinner Macaroni Company
 Soil Conservation Service, USDA
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 Sunflower Association of America
 Stark Brothers Nursery
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 Tennessee Valley Authority
 Towner Nursery
 The Quaker Oats company
 Union Carbide
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 United States Air Force
 United States Forest Service
 United States Plant Introduction Station
 University of California
 University of Minnesota
 University of Vermont
 University of Washington Arboretum
 Valley Nursery
 Velsicol Chemical Corporation
 Water Institute
 Western Plant Breeders
 Willis Nursery Company

**PROFESSIONAL
STAFF CHANGES
(To June 30, 1981)
ADDITIONS TO STAFF**

Witold Rafalowski, Ph.D.
Postdoctoral Fellowship July 15, 1980
Paul G. Sebesta, Ph.D.
Assistant Professor August 22, 1980
Kenneth F. Grafton, Ph.D.
Research Associate September 1, 1980
Clarence W. Samuel, D.V.M.
Lecturer September 1, 1980
Dean E. Williams, M.S.
Assistant in Botany (Dickinson) September 1, 1980
Daniel M. Solien, B.L.A.
Assistant Professor September 2, 1980
Robert J. Goos, Ph.D.
Assistant Professor September 15, 1980
Robert A. Chase, M.S.
Research Assistant October 1, 1980
Joel W. Dick, Ph.D.
Associate Professor October 1, 1980
Eric B. Jang, Ph.D.
Research Associate October 6, 1980
Craig A. Chase, M.S.
Research Assistant November 1, 1980
Achyuta P. Chaudhuri, Ph.D.
Research Associate December 1, 1980
Leslie J. Lovett, B.S.
Research Assistant December 1, 1980
Gary V. Cole, M.S.
Research Assistant January 1, 1981
Khalil Khan, Ph.D.
Assistant Professor January 1, 1981
James L. Arndt, B.S.
Research Assistant February 13, 1981
David G. Hopkins, B.S.
Assistant in Soils March 16, 1981
Roy G. Cantrell, Ph.D.
Assistant Professor April 1, 1981
Mark L. Dreher, Ph.D.
Assistant Professor April 15, 1981
Jay A. Leitch, Ph.D.
Assistant Professor April 15, 1981
Jon R. Walter, M.S.

Research Associate May 1, 1981
Won W. Koo, Ph.D.
Associate Professor June 1, 1981
An Hang, Ph.D.
Research Associate June 9, 1981

**PROFESSIONAL
STAFF CHANGES
DELETIONS TO STAFF**

Paul E. Holmes, Ph.D.
Assistant Professor August 29, 1981
Galen L. Schroeder, M.S.
Research Assistant August 31, 1980
Dale A. Shay, B.S.
Assistant in Soils September 30, 1980
Charles M. Smith, Ph.D.
Professor and Chairman November 28, 1980
Dennis A. Saari, D.V.M.
Associate Professor January 9, 1981
James S. Quick, Ph.D.
Professor April 15, 1981
Louis A. Ogaard, Ph.D.
Research Associate April 30, 1981
Kenneth A. Gilles, Ph.D.
Vice President for Agricultural Affairs May 31, 1981
Edward P. Lana, Ph.D.
Professor and Chairman June 30, 1981
Dorothea G. McCullough, M.S.
Associate Professor June 30, 1981
Sigurd W. Melsted, Ph.D.
Research Scientist, (Mandan) June 30, 1981
Peder A. Nystuen
Associate Dean and Director June 30, 1981
Dan E. Parfitt, M.S.
Research Associate June 30, 1981
David G. Rice, M.S.
Research Assistant June 30, 1981
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