

2001



**2001**  
**Director's Report**  
**of Research**  
**in Kansas**

July 1, 2000 to June 30, 2001  
Agricultural Experiment Station  
Kansas State University



## ***Letter of Transmittal***

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*Office of the Director*

*To the Honorable William Graves,  
Governor of Kansas*

It is my pleasure to transmit herewith the report of the Agricultural Experiment Station of the Kansas State University of Agriculture and Applied Science for the fiscal year ending June 30, 2001. This report contains the title, author, and publication information for manuscripts published by station scientists. It also contains a list of the research projects that were active during that period and a financial statement for the 2001 fiscal year. The report was published only in electronic format.

*Marc A. Johnson, Director*

## ***A Message from the Director***

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We are pleased to provide this 2001 Director's Report of Research in Kansas. The report is intended to inform you about our research programs underway and some of our accomplishments for 2001. Agriculture continues to be vitally important to Kansans, and research is vital to maintaining Kansas' place as a leader in agriculture.

Beginning with this issue and in future years, an annual report instead of a biennial report will be produced and distributed in electronic format only. An annual report distributed via the Internet provides information in a more timely fashion, eliminates printing costs, and makes the report accessible to a broader audience. More detailed information about the accomplishments of our research programs are available in the 2001 Annual Report for K-State Research and Extension, which is available on our Web site (<http://www.oznet.ksu.edu>); under Quick Search, insert "2001 Annual Report."



The 2001 Director's Report of Research in Kansas provides a list of departments, centers, and fields; station publications; active K-State Research and Extension projects; commercial grants and contracts; and financial information.

The Agricultural Experiment Station is the research component of K-State Research and Extension. Our research programs provide the latest information used by our extension programs to address issues facing Kansas citizens.

A handwritten signature in black ink that reads "Marc A. Johnson".

Marc A. Johnson  
Dean and Director  
Agricultural Experiment Station

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To minimize irrelevant items when searching for common names such as Smith or Martin, turn to the page for the scientist's department (or use the department's bookmark) to start your search.

# **Research Components of the Kansas State University Agricultural Experiment Station and Cooperative Extension Service**

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## **K-State Research and Extension**

Agricultural Economics

Agronomy

provides soil testing service

Animal Sciences and Industry

includes International Meat and Livestock Program

provides chemical analyses of feedstuffs

Communications

includes Weather Data Library

Entomology

provides scanning electron microscope service

Grain Science and Industry

includes International Grains Program and

Food and Feed Grains Institute

Horticulture, Forestry and Recreation Resources

Plant Pathology

includes Wheat Genetics Resource Center and the

Plant Biotechnology Center

## **College of Arts and Sciences**

Biochemistry

Biology

provides plant identification service

Sociology, Anthropology and Social Work

Statistics

provides statistical consultation and assistance

## **College of Engineering**

Biological and Agricultural Engineering

Chemical Engineering

Civil Engineering

## **College of Human Ecology**

Apparel, Textiles and Interior Design

Hotel, Restaurant, Institution Management and Dietetics

Human Nutrition

includes Sensory Analysis Center

School of Family Studies and Human Services

## **College of Veterinary Medicine**

Anatomy and Physiology

Diagnostic Medicine/Pathobiology

Food Animal Health and Management Center

## **Research Centers**

Agricultural Research Center–Hays

Horticulture and Forestry Research-Extension Center

John C. Pair Horticultural Center

Northwest Research-Extension Center

Southeast Agricultural Research Center

Southwest Research-Extension Center

## **Experiment Fields (see map, pg. 54)**

East Central●

Harvey County●

Irrigation●▼

Kansas River Valley●▼

Cornbelt●

North Central●

Pecan Field■

Sandyland●▼

South Central●

South Central Annex●

● Agronomy

▼ Biological and Agricultural Engineering

■ Horticulture

# Station Publications

## Reports of Progress

- SRP 857 2000 Kansas Performance Tests with Winter Wheat Varieties
- SRP 858 Swine Day 2000
- SRP 859 2000 Evaluation of Postharvest Life of Selected Fresh-Cut Flowers and Greenery
- SRP 860 2000 Kansas Performance Tests with Corn Hybrids
- SRP 861 Dairy Day 2000
- SRP 862 2000 Great Plains Canola Research
- SRP 863 Seasonal Avian Use of Farmed Kansas Wetlands
- SRP 864 1999 Production and Postharvest Evaluations of Fresh-Cut Peonies
- SRP 865 2000 Kansas Performance Tests with Grain Sorghum Hybrids
- SRP 866 2000 Production and Postharvest Evaluations of Fresh-Cut Peonies
- SRP 867 2001 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
- SRP 868 Kansas Fertilizer Research 2000
- SRP 869 2000 Kansas Performance Tests with Soybean Varieties
- SRP 870 2000 Kansas Performance Tests with Alfalfa Varieties
- SRP 871 2000 Kansas Performance Tests with Sunflower Hybrids
- SRP 872 2000 Kansas Performance Tests with Summer Annual Forages
- SRP 873 2001 Cattlemen's Day
- SRP 874 Survey of Kansas Wild Turkey Hunters: Experiences, Opinions, and Satisfaction
- SRP 875 2001 Agricultural Research Southeast Agricultural Research Center
- SRP 876 Field Research 2001 Agronomy Experiment Fields
- SRP 877 Field Day 2001 Southwest Research-Extension Center
- SRP 878 2001 Turfgrass Research

## Keeping Up With Research

- SRL127 Response of Bt Corn to Simulated Hail Damage
- SRL128 Performance of Wheat Variety Blends in Kansas
- SRL129 Effects of Alfalfa on Wheat Establishment
- SRL130 Grain Quality Components of Corn Hybrids
- SRL131 Late Emergence Effects on Agronomic Characteristics of Wheat

## Bulletin

- SB663 A History of the Agricultural Research Center—Hays The First 100 Years

## Special Publications

Agricultural Research in Kansas: Fortieth Biennial Report of the Agricultural Experiment Station, 1998-2000 (Electronic only)

An Annotated Chronology of Research Highlights at the Agricultural Research Center-Hays 100<sup>th</sup> Anniversary

## Suffix Letters

### for Contribution Numbers (pages 7-40)

- A** Proceedings of Meeting or Symposium
- B** Book or Chapter for Book
- C** Computer Program
- D** Department Report
- E** Extension Publication (co-authored by a KAES researcher but funded separately or published externally as education material) or research by an employee with an extension appointment to be published in a refereed journal.
- J** Journal
- S** Station Publication: Report of Progress, Keeping Up With Research, Special Publications, and Bulletins
- T** Trade Publication

Categories are based on information received before manuscripts are published. Place of publication sometimes changes later. Numbers are deleted if authors cannot supply publication data.

Station publications are available on the World Wide Web at <http://www.oznet.ksu.edu/library/>. Department Reports are available only from the appropriate department office. Copies of journal articles or other outside publications must be obtained from the authors.

## **Publications of Station Scientists** (By Department and Station Contribution Number)

### **Agricultural Economics**

- 96-193-J CVM-X: Calibrating Contingent Values with Experimental Auction Markets  
J.A. Fox, J.F. Shogren, D.J. Hayes, and J.B. Kliebenstein  
*Am. J. Ag. Econ.* 80:455-465, 1998
- 98-121-J Quantitative Assessment and the Adoption of Improved Rice Varieties in Casamance, Senegal: The Farmer's Perspective  
S. Sall, D. Norman, and A. Featherstone  
*Agric. Systems* 66:129-144, 2000
- 98-351-J Productive Efficiency and Growth Policies for the Caribbean  
P. Lall, A.M. Featherstone, and D.W. Norman  
*Appl. Econ.* 32:198-207, 2000
- 99-94-J Women Accessing Agricultural Credit: The Rural Farmers Scheme, Uganda  
B. Abaru, D. Norman, and A. Featherstone  
*Proc. of 23rd Inter. Conf. of Ag. Economists*  
Sacramento, CA, 1997
- 99-420-J Utilization of Preventive Medical Services in the United States: A Comparison between Rural and Urban Populations  
P. Zhang, G. Tao, and K.L. Irwin  
*J. Rural Health* 16:349-356, 2000
- 00-145-J Value of Increased Pricing Accuracy in Fed Cattle  
T.C. Schroeder and J.L. Graff  
*Rev. Agric. Econ.* 22:89-101, 2000
- 00-159-J Marketing Issues with Hydroponic Tomatoes  
D. Coltrain and M. Boland  
*Agric. Econ. Dept. Rep. (Staff Pap. 00-02):1-16*, 2000  
(available from dept. only)
- 00-357-J Price-Weight Relationships for Feeder Cattle  
K.C. Dhuyvetter and T.C. Schroeder  
*Can. J. Agric. Econ.* 48:299-310, 2000
- 00-445-J Economics of Increasing Lysine: Calorie Ration and Dietary Fat Addition for Growing-Finishing Pigs Reared in a Commercial Environment  
M. De La Llata, S.S. Dritiz, M.R. Langemeier, M.D. Tokach, R.D. Goodband, and J.L. Nelssen  
*J. Swine Health and Prod.* 9(5):215-223, 2001
- 00-455-J Management Implications of Farm Tractor Depreciation Methods  
T.J. Dumler, R.O. Burton Jr., and T.L. Kastens  
*2000 J. ASFMRA* 63:3-10, 2000
- 00-470-D Profitability and Risk Measures for Investor-Owned Firms  
C. Freberg, M. Boland, and D. Barton  
*Agric. Econ. Dept. Rep. (Staff Pap. 00-07):1-52*, 2000  
(available from dept. only)
- 00-478-D Summary of Data and Company Information for 220 Investor-Owned Firms and Cooperatives  
C. Freberg, M. Boland, and D. Barton  
*Agric. Econ. Dept. Rep. (Staff Pap. 00-09):1-23*, 2000  
(available from dept. only)
- 00-493-J Identifying Economic Risk in Cattle Feeding  
D.R. Mark, T.C. Schroeder, and R. Jones  
*J. Agribus.* 18:331-344, 2000
- 01-6-D Impact of Higher Oil Prices on Production Costs for Kansas Farm Management Association Farms  
J.R. Williams and F.D. DeLano  
*Agric. Econ. Dept. Rep. (Staff Pap. 01-01):1-20*, 2000  
(available from dept. only)
- 01-10-J Determining Socially Optimal Nitrogen Application Rates Using a Delayed Response Model: The Case of Irrigated Corn in Western Kansas  
E. Nkonya and A.M. Featherstone  
*J. Agric. Res. Econ.* 25:453-467, 2000
- 01-30-J The Economic Impact of Higher Oil Prices on Farm Production Costs in Kansas  
J.R. Williams, F.D. DeLano, and T.D. Aller  
*2001 J. ASFMRA* 64:32-38, 2001
- 01-35-D Efficiency and Productivity Measures of Low Income Countries: Implications for Development  
S. Tubene, D. Norman, and A. Featherstone  
*Agric. Econ. Dept. Rep. (Res. Rep. #31): 1-17*, 2000  
(available from dept. only)
- 01-39-A Institutionalizing the Farming Systems Approach through Time: The Example of the Lake Zone, Tanzania  
J.M. Mafuru, T. Schrader, and D.W. Norman  
*Proc. 16th Symp. Intl. Farming Syst. Assoc. and 4th Symp. Latin Am. Farming Syst. Res. and Ext.*  
Santiago, Chile, 9, 2000
- 01-40-A Using Canonical Correlation Analysis to Assess Community Participation in, and Management and Sustainability of, Water Utility Projects: The Example of Dodoma and Singida Regr, Tanzania  
A.R.M. Kaliba and D.W. Norman  
*Proc. 16th Symp. Intl. Farming Syst. Assoc. and 4th Symp. Latin Am. Farming Syst. Res. and Ext.*  
Santiago, Chile, 13, 2000

## Publications of Station Scientists

- 01-41-A Developing a Viable Food Production Strategy in a Complex Humanitarian Emergency: The Case of South Sudan  
C. Guvele, A. O'Toole Salinas, and D.W. Norman  
Proc. 16th Symp. Intl. Farming Syst. Assoc. and 4th Symp. Latin Am. Farming Syst. Res. and Ext.  
Santiago, Chile, 1, 2000
- 01-56-D Costs and Benefits of Carcass Antimicrobial Technologies  
J.A. Fox and M.A. Boland  
Agric. Econ. Dept. Rep. (Res. Rep. #32):1-10, 2000  
(available from dept. only)
- 01-63-J Using Farm Consumption Data to Estimate the Intertemporal Elasticity of Substitution and Relative Risk Aversion Coefficients  
A.O. Abdulkadri and M.R. Langemeier  
Agric. Financ. Res. 60:61-70, 2000
- 01-86-J Macroeconomics and Undergraduate Agricultural Economics  
M. Oldfather and B.W. Schurle  
Rev. Agric. Econ. 23:458-471, 2001
- 01-129-J Non-Parametric and Semi-Parametric Techniques for Modeling and Simulating Correlated, Non-Normal Price and Yield Distributions: Applications to Risk Analysis in Kansas Agriculture  
A.M. Featherstone and T.L. Kastens  
J. Agric. and Appl. Econ. 32:267-281, 2000
- 01-130-J Measuring X-Efficiency and Scale Efficiency for a Sample of Agricultural Cooperatives  
C.B. Ariyaratne, A. Featherstone, M.R. Langemeier, and D.G. Barton  
Agric. and Res. Econ. Rev. 29:453-467, 2000
- 01-162-D What Is Value Added? Opportunities and Strategies  
D. Coltrain, D. Barton, and M. Boland  
Agric. Econ. Dept. Rep. (Staff Pap. 01-03):1-18, 2001  
(available from dept. only)
- 01-178-D Gross Margin Analysis for Sustainable Agriculture Part I: Definitions and Enterprise Analysis  
D.W. Norman, R.O. Burton Jr., S.G. Freyenberger, and J. Jost  
Published in Sustainable Ag Series, 2000  
(available from dept. only)
- 01-192-D Kansas Farm Management Data Bank Documentation  
L.N. Langemeier  
Agric. Econ. Dept. Rep. (Staff Pap. 01-05):1-102, 2000  
(available from dept. only)
- 01-318-S Cattlemen's Day 2001  
D.A. Blasi, R.A. Christmas, D.W. Moser, M.E. Dikeman, S.L. Stroda, J.S. Stevenson, B.A. Hensley, T.J. Marple, M.A. Medina-Britos, D.M. Grieger, T.A. Wickersham, R.C. Cochran, J.F. Gleghorn, T.T. Marston, L.E. Wankel, G.L. Kuhl, G.L. Huck, J. Mintert, T.C. Schroeder, T. Marsh, M.F. Spire, J.M. Sargeant, S.K. Tucker, A.M. Richardson, E.J. Pollak, R.D. Green, J. Taylor, S. Davis, T. Holm, S. Koontz, C. Gill, E.A. Westcott, R.J. Lipsey, G.C. Lamb, S.J. Johnson, J.D. Lawrence, M.L. Hayenga, S.I. Paisley, J. Higgins, M.S. Holder, D.E. Kehler, B. Farran, J.J. Sindt, S.P. Montgomery, C. Birkelo, G.L. Stokka, T.G. Rozell, J.R. Brethour, D.O. Yauk, W.V. Welshons, G.E. Rottinghaus, J.L. Davidson, D.E. Kehler, D.V. Dhuyvetter, C.G. Farmer, M.T. Ortega-Valenzuela, R.K. Phebus, H. Thippareddi, J.L. Marsden, C.L. Kastner, D.A. King, T.E. Lawrence, E. Obuz, E.J. Yancey, B.S. Andrews, J.A. Unruh, R.R. Timm, K.A. Hachmeister, L.M. Sammel, A.E. Razor, M.C. Hunt, D.H. Kropf, P.B. Addis, E. Katsanidis, T.H. Montgomery, D.A. Shafer, B.D. Lambert, E.C. Titgemeyer, C.A. Loest, A.M. Trater, J.S. Drouillard, T.B. Farran, C.M. Coetzer, H.J. LaBrune, R.D. Hunter, R.A. Stock, S.B. Laudert, F.K. Brazle, T.J. Kessen, R.T. Ethington, J.N. Pike, and D.L. Lambert  
Kans. Agric. Exp. Stn. Rep. Prog. 873, 1-110, January 2001
- 01-325-D A Summary of Results from the Integrated Agricultural Management Systems Survey  
D. Bernardo, T. Kastens, K. Dhuyvetter, R. Jones, M. Langemeier, and M. Doane  
Agric. Econ. Dept. Rep. (Res. Rep. #33): 1-81, 2001  
(available from dept. only)
- 01-347-D A History of the K-MAR-105 Association - Financial Management Systems Designed for Agriculture  
L.N. Langemeier  
Agric. Econ. Dept. Rep. (Staff Pap. 01-06):1-42, 2001  
(available from dept. only)
- 01-379-S 2001 Agricultural Research Southeast Agricultural Research Center  
L.W. Lomas, J.L. Moyer, D.W. Sweeney, K.W. Kelley, J.H. Long, R. Jones, C.W. Marr, T. Todd, M. Knapp, S. Staggenborg, F.K. Brazle, G.L. Kilgore, and S. Duncan  
Kans. Agric. Exp. Stn. Rep. Prog. 875, 1-70, May 2001
- 01-385-D Differences between New Generation Cooperatives and Traditional Cooperatives  
D. Coltrain, D. Barton, and M. Boland  
Agric. Econ. Dept. Rep. (Staff Pap. 01-08):1-9, 2001  
(available from dept. only)



## Publications of Station Scientists

- 01-389-D An Analysis of K-MAR-105 Association's Development of Financial Management Software — 1990-2000  
L.N. Langemeier  
Agric. Econ. Dept. Rep. (Staff Pap. 01-07):1-42, 2001  
(available from dept. only)
- 01-453-D Converting KMAR Machinery Investment Data to a Market Value Series  
T. Dumler, T. Kastens, and K. Dhuyvetter  
Agric. Econ. Dept. Rep. (Staff Pap. 01-09):1-14, 2001  
(available from dept. only)
- 01-460-A The Relationship between Incomes, Farm Characteristics, Cost Efficiencies, and Rate of Return to Capital Managed  
J.W. Dunn and J.R. Williams  
Agric. Econ. Dept. Rep. (Staff Pap. 01-10):1-38, 2001  
(available from dept. only)  
Also in the Proc. of the WAEA
- 01-476-D Staff, Programs, and Publications in Agricultural Economics — Kansas State University, 2000  
D.L. Foster  
Agri. Econ. Dept. Rep. (Staff Pap. 01-11):1-50, 2001  
(available from dept. only)

### Agronomy

- 96-117-J Predicting Forage Quality in Switchgrass and Big Bluestem  
R.B. Mitchell, J.O. Fritz, K.J. Moore, L.E. Moser, K.P. Vogel, and D.D. Redfern  
Agron. J. 93:118-124, 2001
- 98-247-J Land-Use Management Using a Soil Survey Geographic Database for Finney County, Kansas  
J. Wu, M.D. Ransom, G.J. Kluitenberg, M.D. Nellis, and H.L. Seyler  
Soil Sci. Soc. Am. J. 65 (1):169-177, 2001
- 98-280-J Combined Effects of Drought and High Temperature on Water Relations of Wheat and Sorghum  
S. Machado and G.M. Paulsen  
Plant and Soil 233:179-187, 2001
- 99-14-J Carbon and Nitrogen Dynamics and Microbial Activity in Tallgrass Prairie Exposed to Elevated CO<sub>2</sub> for 8 Years  
M.A. Williams, C.W. Rice, and C.E. Owensby  
Plant and Soil 227:127-137, 2000
- 99-312-J Allelopathy of Sorghum on Wheat under Several Tillage Systems  
C.M. Roth, J.P. Shroyer, and G.M. Paulsen  
Agron. J. 92:855-860, 2000
- 99-334-J Control of Green Foxtail, Ivyleaf Morningglory, Kochia, and Velvetleaf in Soybean with Imazamox and Diphenylether Herbicides  
R.D. Unland, K. Al-Khatib, and D.E. Peterson  
Tran. Kans. Acad. Sci. 103:111-121, 2000
- 99-392-J Registration of Four Genetic Stocks of Sunflower Resistant to Imidazolinone Herbicides  
K. Al-Khatib and J.F. Miller  
Crop Sci. 40:869-870, 2000
- 99-449-B Infiltration into a New Zealand Native Forest Soil  
M.B. Kirkham and B.E. Clothier  
In: *A Spectrum of Achievements in Agronomy*. Cynthia Rosenzweig (Ed.)  
ASA Special Publication No. 62. Madison, WI, 13-26, 2000
- 99-521-J Comparing Genetic Coefficient Estimation Methods Using the CERES-Maize Model  
E. Roman-Paoli, S.M. Welch, and R.L. Vanderlip  
Agric. Syst. 65:29-4, 2000
- 00-41-J Evaluation of a Ninhydrin Procedure for Measuring Membrane Thermostability of Wheat  
C. Cekic and G.M. Paulsen  
Crop Sci. 41:1351-1355, 2001
- 00-96-J Competition for Nitrogen in a Tallgrass Prairie Ecosystem Exposed to Elevated CO<sub>2</sub>  
M.A. Williams, C.W. Rice, and C.E. Owensby  
Soil Sci. Soc. Am. J. 65:340-346, 2001
- 00-105-J Phosphorus, Potassium, Chloride, and Fungicide Effects on Wheat Yield and Leaf Rust Severity,  
D.W. Sweeney, G.V. Granade, M.G. Eversmeyer, and D.A. Whitney  
J. Plant Nutr. 23(9):1267-1281, 2000
- 00-117-A Efficient Estimation of Genetic Coefficients for Crop Models  
S.M. Welch, J. Zhang, N. Sun, and T.-Y. Mak  
Proc. 3rd Intl. Symposium on Systems Approaches for Agricultural Development  
International Potato Center (CIP), Lima, Peru, CD-ROM, 2000
- 00-131-J Photosynthesis and Stomatal Conductance of the New Zealand Native Tree, *Meryta sinclairii*, Grown Under Two Watering Regimes  
M.B. Kirkham, F.M. Kelliher, and J.E. Hunt  
New Zeal. J. Bot. 38 (3):515-519, 2000
- 00-151-J Photoperiodic Regulation of Seasonal Diapause Induction in the Field Bindweed Moth *Tyta luctuosa* (Lepidoptera: Noctuidae)  
N.W. Miller, J.R. Nechols, M.J. Horak, and T.M. Loughin  
Biol. Cont. 19:139-148, 2000

## Publications of Station Scientists

- 00-198-J Subsurface Drip Irrigation Using Livestock Wastewater: Dripline Flow Rates  
T.P. Trooien, F.R.Lamm, L.R. Stone, M. Alam, D.H. Rogers, G.A. Clark, and A.J. Schlegel  
Appl. Engin. in Agric. 16 (5):505-508, 2000
- 00-200-A Effects of Seed Treatment Fungicides on Stand and Yield of Grain Sorghum, 1999  
D. Jardine, M. Claassen, J.H. Long, and L. Maddux  
Fungicide & Nematicide Tests 55: 458, 2000
- 00-210-T History and Location of Puka  
M.B. Kirkham, F.M. Kelliher, and J.E. Hunt  
New Zeal. Bot. Soc. Newsletter No. 6 (June), 16-19, 2001
- 00-239-E Are Traditional Extension Methodologies Extinct or Just Endangered?  
W.M. Eberle and J.P. Shroyer  
J. Nat. Resour. Life Sci. Educ. 29:135-140, 2001
- 00-251-J Towards Site-Specific Design Standards for Animal-Waste Lagoons in the Great Plains: Protecting Groundwater Quality  
J.M. Ham  
J. Envir. Qual. 29:1721-1732, 2000
- 00-267-J MON 37500 Efficacy as Affected by Rate, Adjuvants, and Carriers  
B.L.S. Olson, K. Al-Khatib, P.W. Stahlman, and P.J. Isakson  
Weed Tech. 14:750-754, 2000
- 00-284-J Comparative Physical Mapping of the 18S-5.8S-26S rDNA in Three Sorghum Species  
Y. Sang and G.H. Liang  
Genome 43:918-922, 2000
- 00-295-J Registration of 'Heyne' Wheat  
R.G. Sears, T.J. Martin, P.J. McCluskey, G.M. Paulsen, W.F. Heer, J.H. Long, M.D. Witt, and G. Brown-Guedira  
Crop Sci. 41:1367, 2001
- 00-296-J Registration of 'Betty' Wheat  
R.G. Sears, T.J. Martin, P.J. McCluskey, G.M. Paulsen, W.F. Heer, J.H. Long, M.D. Witt, and G. Brown-Guedira  
Crop Sci. 41:1366, 2001
- 00-297-J Registration of 'Trego' Wheat  
T.J. Martin, R.G. Sears, D.L. Seifers, T.L. Harvey, M.D. Witt, A.J. Schlegel, P.J. McCluskey, and J.H. Hatchett  
Crop Sci. 41:929-930, 2001
- 00-302-J Registration of 'Wichita' Rapeseed  
C.L. Rife, D.L. Auld, H.D. Sunderman, W.F. Heer, D.D. Baltensperger, L.A. Nelson, D.L. Johnson, D. Bordovsky, and H.C. Minor  
Crop Sci. 41:263-264, 2001
- 00-308-B Enhanced Disease Resistance in Cereals by Transformation with Genes for Pathogenesis-Related Proteins  
S. Muthukrishnan, G.H. Liang, H.N. Trick, and B.S. Gill  
Plant Cell, Tissue, and Organ Culture 64:93-144, 2001
- 00-317-J Seed Treatment for Control of Wheat Insect Pests and Its Effect on Yield  
G.E. Wilde, R.J. Whitworth, M. Claassen, and R. Shufran  
J. Agric. and Urban Entomol. 18:1-11, 2001
- 00-325-J Evapotranspiration in a Prairie Ecosystem: Effects of Grazing by Cattle  
D.J. Bremer, L.M. Auen, J.M. Ham, and C.E. Owensby  
Agron. J. 93:338-348, 2001
- 00-331-J Improved Evaluation Procedure for Heat-Pulse Soil Water Flux Density Method  
G.J. Kluitenberg and A.W. Warrick  
Soil Sci. Soc. Am. J. 65(2):320-323, 2001
- 00-353-J Efficacy and Metabolism of MON 37500 in *Triticum aestivum* and Weedy Grass Species as Affected by Temperature and Soil Moisture  
B.L.S. Olson, K. Al-Khatib, P.W. Stahlman, and P.J. Isakson  
Weed Sci. 48:541-548, 2000
- 00-368-J *Agrobacterium*-Mediated Transformation of Creeping Bentgrass Using GFP as a Reporter Gene  
T.T. Yu, D.Z. Skinner, H.N. Trick, B. Huang, S. Muthukrishnan, and G.H. Liang  
Hereditas 133:229-233, 2000
- 00-371-A Repellency of Soil Beneath Closed Animal Waste Lagoons  
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## Active Projects

### Ag Economics

520490 Benefits & Costs of Pre- and Post-Harvest HACCP for the Pork Industry

520492 Analysis of Farm-Level Risk Management

520493 Water Quality Profit Optimization Project

520502 Fecal Coliform Contamination in KS River Basins: Source, Monitoring, Development of BMP's

520504 Consumer Willingness to Pay for Steak Tenderness

520505 Water Conservation--Increased Efficiency in Usage

520506 Valuing Marketing Rights in New Generation Cooperatives

520507 Comparative Cost-Benefit Analysis of New Renewable and Sustainable Energy

520509 Dynamic Implications of Global Growth in Population Income and Technology

520510 Using NASA EOS Data to Predict Economic Well-Being in Kansas Agriculture (The Great Plains Regional Earth Science Applications Center (GP-RESAC): A Consortium to Transfer Remote Sensing Products)

520511 Water Contaminants Evaluation Study

520512 Estimating the Nationwide Demand for Risk Reduction from Foodborne Pathogens

520519 Economics & Fiscal Implications of Electronic Commerce for Rural Communities

520520 Cooperatives and Their Role in Value-Added White Wheat Markets

520523 Current Economic Issues with Hard White Wheat in Kansas

520524 Analysis of Small Game Harvest Survey Data

520525 Market Research on Value Enhanced Soybeans

520526 Market Research on Value-Enhanced Corn

520527 Market Research on Grain Sorghum

520528 Water Conservation -- Increased Efficiency in Usage

520529 Development of NPS Loan Agreement

520530 Empirical Tests of STE Leadership Behavior in International Grain Markets

520531 Yield Performance and Producer Experience

520533 Cooperatives' Role in Food and Feed Grain Identity - Preserved Systems

520534 Market Research for Speciality White Wheats

520535 Cost and Benefits of Mandatory Price Reporting in the Beef Industry

520536 Summarization and Analysis of 2000 Small Game Harvest Survey (SGHS)

520540 Evaluation of Special Program for Food Security

520542 Experimental Auctions and External Validity: Consumer Demand for Quality Differentiated Beef

536083 Institutional Cooperation and Student Exchange Among US, Mexican and Canadian Institutions

536182 National Needs Fellowship - Food Marketing Food Safety

536386 Food & Agricultural Sciences National Needs Grad Fellowships Grants Program (Supplementals - 2)

536386 Escherichia coli 0157:H7 and Salmonella spp. and Listeria monocytogenes: Determination of D- and Z-Values in Ground Beef

536413 Federal Ag Policy Impacts to KS Rural Communities & Households

536438 Risk Management Education: A Risk Management Club Approach

536481 Integration of Computer Applications Throughout the Agribusiness Curriculum

536528 European Perceptions of US Hormone-Treated Beef  
\*\*In Conjunction With\*\* Food & Agricultural Sciences National Needs Grad Fellowship

536597 Fellowship for January M. Mafuru

536719 Kansas Local Government Water Quality Planning and Management Guide and Education Program

536761 KS Cooperative Development Center Education & Assistance Program

536778 Kansas Urban Water Quality Restoration and Protection Initiative (Planning Process Technical Assistance, Education and Outreach Impact Analysis

536782 Kansas Cooperative Development Center Education and Assistance Program

536820 Kansas Cooperative Development Center Education and Assistance Program

536832 A Rural Community Based Case Test to Evaluate the Efficacy of the USDA Quality System Certification Program (QSCP) for Small Livestock and Meat Marketing Programs

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536832 A Rural Community Based Case Test to Evaluate the Efficacy of the USDA Quality System Certification Program (QSCP) for Small Livestock and Meat Marketing Programs

### Ag Research Center - Hays

525965 Involves Other Departments for Multi Sponsored Crop Performance

525994 Identification, Detection, and Variability of the High Plains Pathogen

525998 Integrated Management Systems for Jointed Goatgrass in Central Great Plains

526001 Effect of Stockosorb Agro on Winter Wheat Grown in Central Kansas

526003 Effects of Stockosorb Agro on Grain Sorghum in Central Kansas

526007 Predicting Future Carcass Attributes on Weaning Calves with Ultrasound Technology

526009 Wheat Streak Mosaic Virus Regional Screening Nursery

526010 Sorghum Research

526011 Integrated Management Systems for Jointed Goatgrass Control in the Central Great Plains

526012 Optimizing Spartan Performance in No-Till Sunflower

526013 Planting Dates and Maturity Group Effects on Soybean Production in Kansas

526014 Breeding Sorghum with Improved Grain Yield, Greenbug and Virus Resistance, and Pre-Flowering Drought Tolerance

526015 Kansas Dual Purpose Pest Resistant White Wheats

526016 Regeneration of Sorghum Accessions

526017 Integrated Management Systems for Jointed Goatgrass in the Central Great Plains

526021 United Agri Products Fellowship

### Agronomy

520333 Pioneer Plant Breeding Fellowship

520713 Development of Hard White Winter Wheat for Kansas

520756 Foundation Seed Maintenance (Agseco-McDonald, Kansas)

520761 Crop Performance

520764 Improvement of Hard Red Winter Wheat in Kansas

520765 Management of the Soybean Cyst Nematode and Charcoal Rot in Soybeans

## Active Projects

520800	Providing Soil Sample Analyses for Soil Survey Activities	520878	Belowground Carbon Allocation and Cycling in Tallgrass Prairie and Wheat Ecosystems	520914	Landscape-Level Trace Gas Fluxes on Grazed and Ungrazed Tallgrass Prairie
520807	Terrestrial Carbon Processes, II	520879	Water Conservation--Increased Efficiency In Usage	520916	The Role of Natural Organic Material in the Disposition and Binding of Organic Contaminants and Heavy Metals
520815	An Instrument Combining 3D Plant Photogrammetry with Automated Physiological Monitoring	520885	Assessing Absorption & Uptake of Ethylene Dibromide (EDB) in Mature Cranberry Fruit and Plants at Harvest at Massachusetts	520917	The Role of Natural Organic Material in the Disposition and Binding
520816	Remodeling Instrument Combining 3D Plant Photogrammetry with Automated Physiological	520886	Assessing Absorption & Uptake of Ethylene Dibromide (EDB) in Mature Cranberry Fruit and Plants at Harvest at Massachusetts	520919	Landscape-Level Trace Gas Fluxes on Grazed & Ungrazed Tallgrass Prairie (Sub-Title: Carbon & Water Vapor Fluxes)
520819	Variable Nitrogen Management for Protecting Groundwater Quality	520887	Wind Erosion Model for Military Lands	520921	Developing a Research and Extension Program to Limit the Spread and Enhance the Management of Sericea Lespedeza In Kansas
520833	Variable Nitrogen Management for Improving Groundwater Quality	520888	Wind Erosion Assessment & Control	520922	Pilot Study of Influences of Atmospheric Pressure Fluctuations on Fluxes of Trace
520837	Pigweed (Amaranthus spp.) Identification, Hybridization and Introgression	520889	Development of Acid-Tolerant Alfalfa Germplasm for Kansas	520923	Impact of Animal Waste Compost on Turfgrass Soil Quality
520844	Development of Improved Soybean Varieties for Kansas	520890	Addition of Genes Encoding Thaumatin-Like Protein and Late Embryogenesis Abundant Protein	520924	Gluten Proteins that Improve Bread Quality
520845	Control of Residue-Borne Winter Wheat Diseases	520891	Alachlor Acetochlor & Metachlor Metabolites in Plant and Soil	520925	Improving Resistance to Preharvest Sprouting in Kansas White Wheat
520857	Implementation of Best Management Practices in the Blue River Basin of Kansas and Nebraska	520892	Alachlor Acetochlor & Metachlor Metabolites In Plant And Soil	520926	Breeding Grain Sorghum for Improved Dryland Production
520864	The Impact of Golf Courses on Soil Quality	520893	Integrating Genetics and Precision Farming Information into Decision Support Systems	520927	Improving Soybean Profitability through Breeding
520865	Fecal Coliform Contamination in Kansas River Basins: Source, Monitoring, Development, Demo of Bmp's	520895	EPA Experimental Program to Stimulate Competitive Research	520928	Improving the Crop Safety and Weed Control Efficacy of Metsulfuron-(Allyl)-Based Herbicide Programs for Grain Sorghum
520866	Gene Flow, Distribution, Growth & Competitiveness of Pursuit-Resistant Common Sunflower	520896	EPA EPSCOR - Enhancement of Water Quality Research	520929	Integrated Management of the Soybean Cyst Nematode and Charcoal Rot
520867	Kansas EPA EPSCOR: Enhancement of Environmental Remediation Research - Subs (KU & WSU)	520897	EPA Experimental Program to Stimulate Competitive Research Seer1	520930	Planting Dates and Maturity Group Effects on Soybean Production in Kansas
520868	Kansas EPA EPSCOR: Enhancement of Environmental Remediation Research - Seer 3 (Yr 1 & 2)	520898	EPA EPSCOR - Enhancement of Water Quality Research / Seer 1	520931	Post-Control Weed Competitiveness as Input Into a Weed Management DSS
520869	Kansas EPA EPSCOR: Enhancement of Environmental Remediation Research - Mgmt (Yr 1 & 2)	520899	EPA Experimental Program to Stimulate Competitive Research Seer3	520932	Iron (Fe) Chlorosis: Addressing A Familiar Problem With New Technology
520871	Educational Tools for Wind Erosion Control	520900	EPA EPSCOR - Enhancement of Water Quality Research / Seer 3	520933	Water Conservation -- Increased Efficiency In Usage
520872	KS EPA EPSCOR: Enhancement of Environment Remediation Research	520902	Soil Rating and Growth Model for the Valuation of Irrigated Lands in Kansas	520934	Transformation of Sorghum with Agronomically Useful Genes
520873	KS EPA EPSCOR: Enhancement of Environment Remediation Research	520904	Canola Production Centers: Introducing a Viable New Crop to Kansas	520935	Adaptation of Weedssoft Weed Management Decision Aid Software
520874	Match for KS EPA EPSCOR: Enhancement of Environment Remediation Research	520907	Potential for Imidazolinone-Resistant Sunflower Gene Escape and Altered Fitness of Related Wild Species	520936	Research Support Agreement #58-5430-7-507 T.O. #T15430203
520875	Breeding for Ergot Avoidance in Sorghum: Mid-Season Cold Tolerance	520908	Aluminum Tolerance in Canola: Developing Canola Varieties Adapted to Low Ph Soils	520937	Assessment of Plant Root Development in Alternative Cover Plots at Rocky Mountain Arsenal, Colorado
520876	Site-Specific Lime Applications to Reduce Phosphorus Loading in the Cheney Watershed	520909	Sorghum Research		
520877	Development of Wheat Germplasm with Multiple Disease & Insect Resistance for the South Great Plains	520911	Jeoung Fellowship		
		520912	USDA/ARS Research Support Agreement Task Order #T05430203		
		520913	USDA/ARS Research Support Agreement Task Order #T05430202		

## Active Projects

520937	Assessment of Plant Root Development in Alternative Cover Plots at Rocky Mountain Arsenal	536728	CHLTH Agreement Between KS Smokeless Kids Initiative & KSU Res/ Exten Comm Health	521861	Responses of Cattail Vegetation to Stocker Cattle Grazing	
520937	Assessment of Plant Root Development in Alternative Cover Plots at Rocky Mountain Arsenal	536772	Grazing Land Water Quality - Part 4	521862	Steam Pasteurization Assessment & Microbial Analysis	
520938	Development of Wheat Germplasm with Multiple Disease and Insect Resistance for the Southern Great Plains	536774	Reducing Atrazine Runoff-Delaware & Blue Rivers - Part 3	521863	Post-Process Pasteurization of Packaged, Ready-To-Eat Meat Products for Control of Listeria Monocytogenes	
520939	Improvement of Hard Red Winter Wheat for Kansas	536784	White Wheat Commercialization	521864	Animal Sciences Food Safety Consortium - KSU	
520940	Development of Hard White Winter Wheat for Kansas	536785	Soybean Production in Kansas: Extension and Applied Research	521865	Modulation of Immune Response in Feeder Cattle with Flaxseed	
520942	Gluten Proteins that Improve Bread Quality	536786	Grain Sorghum Production in Kansas: Extension and Applied Research	521869	Immunomodulatory and Growth Effects of the Seaweed Ascophyllum Nodosum in	
520943	Control of Residue-Borne Winter Wheat Diseases	536800	Wheat Research / Extension Assistant	521870	Effects of Dried Plum Puree on Foodborne Pathogens in Meats and Meat Products	
520944	Lagoon Water Quality Study Part 4	536806	White Wheat Commercialization	521871	Planting Dates And Maturity Group Effects On Soybean Production In Kansas	
520945	Evaluation of Tan-Plant Sorghum Hybrids	536811	Research/Demonstration/Education Compost Facility	521872	Salmonella Spp. and Listeria Monocytogenes Risk Assessment for Production and Cooking of Blade Tenderized Beef Steaks	
520946	Isoxalutole Losses in Surface Water Runoff	536830	Grazing Land Water Quality - Part 5	521873	Evaluation of Optiboar for Assessing Characteristics of Boar Semen	
520947	Consortium for Agricultural Soil Mitigation of Greenhouse Gases (CASMGs)	<b>Anatomy &amp; Physiology</b>			521874	Distiller's Byproducts for Cattle: Food Safety, Meat Quality and Cattle Performance
520948	Elucidation of and Development of Cold Tolerance in Sorghum	528602	Neurons & Neuropeptides in Sea Anemones	521875	Feeding Flaxseed & Flaxseed Products to Improve Health & Performance of Stressed Feeder Calves	
520953	Evaluation of Agri-SC for Reducing Soil, Nutrient, and Herbicide Losses in Cropland Runoff	528603	Neurons & Neuropeptides In Sea Anemones	521876	Control of Listeria Monocytogenes in Ready-To-Eat Meats	
520954	Evaluating Nitrate Leaching Characteristics for Various Nitrogen Management Strategies for Irrigated Corn Along the Lower Arkansas River	528608	High Resolution Regional Maps of Swine Chromosomal Segments Containing QTL	521878	Effect of Protein Size and Source on Delayed Type Hypersensitivity in Early Weaned Pigs	
520955	Investigations of Vegetative Capping Strategies for Fly-Ash Disposal Sites	528612	Porcine Antimicrobial Peptides	521879	Merchandising Value-Added Lamb Shoulder to the Food Service Industry	
520966	Sprinkler Irrigation Demonstration Project	528615	Contribution of the NADPH Oxidase to Reperfusion Injury	521880	Corn Byproducts for Cattle: Performance, Food Safety & Meat Quality	
520967	Variety Testing, Farmer Education and Management of Identity Preserved Farming Systems	528616	Regulated Ion Transport by Vas Deferens Epithelium	521881	Post-Process Pasteurization of Packaged, Ready-to-Eat Pork Products for Control of Listeria Monocytogenes	
525450	FY2001 KS Water Res. Res. Inst. - Measuring Seepage Losses from Waste-Treatment Lagoons: A Simplified Water Balance Approach for Use by Government Agencies, Consultants, and Industry	528617	Ionic Basis of Repolarization in Equine Heart: Relevance to Atrial Fibrillation and Acquired LQTS	521884	Evaluation of Nutridense Corn Hybrids for Nursery Pig Diets	
536317	Yesterday's Research for Tomorrow's Needs	528618	The NADPH Oxidase and Neutrophil Recruitment in Muscle	521887	Molecular Characterization of Escherichia coli 0157:H7 from Beef animals, Environment and Foodborne Disease Outbreaks	
536338	Grazing Land Water Quality - Part 2	529421	LKS & LKUR in Granulosa Cells	521888	Development of an Integrated HACCP Plan and Microbiological Risk Assessment of Beef Trim and Intervention Treatments for Use as Raw Material for Ground Beef	
536375	Matching for Yesterday's Research for Tomorrow's Needs	<b>Animal Sciences</b>			535030	Teaching Support Livestock and Meat Industry Council
536504	Developing A World Class Nutrition Course Strengthened Quality/ Contained Costs	521788	A Soybean Extension Educational Program in Southeast Kansas			
536704	Grazing Land Water Quality Education Program: Part 3	521822	Effectiveness of Cloptilolite as a Suspending Agent in Liquid Feed Supplements			
536726	Wheat Research/Extension Assistant	521828	Wheat Middling Evaluations			
		521835	HACCP Implementation and Evaluation in Small and Very Small Meat and Poultry Plants			
		521837	Effect of Plants on Bioavailability and Toxicity of Contaminants in Soil			
		521848	Steam Pasteurization Assessment and Microbial Analysis (98-11B)			
		521857	Carcass Merit Traits: Development of EPD's and Genetic Marker Validation			

# Active Projects

536237	Feasibility of Farming Seasonal Wetlands & Evaluation of Farmed Seasonal Wetlands	527245	Roles of Multiple Phospholipase Ds in Plant Reproduction & Senescence	527286	Molecular Analysis of Mucin-type Oglycosylation
536312	Position for HACCP Assessment Development and Implementation	527251	NMR Studies of Inactive and Active Forms of Blood Coagulation	527287	ADAM 12 in Myogenesis
536313	Food and Feed Value Added Program	527253	Regulation and Function of Membrane Lipid Hydrolysis in Lipid-Based Signaling of Plants	527288	Effect of Glucose on Blood Coagulation Factor XII
536389	Quick Reference Guide for Food Processors	527257	Biochcell Surface Proteins Involved the Encapsulation Response Insect Hemocytes	527289	Immunogenic Tumor-Related Mucin Peptides
536411	Position for HACCP Assessment Development and Implementation	527259	Effects of Cosolvents on Hydrophobic Hydration	527291	Structure and Activity of Human TorsinA
536448	Feasibility of Farming Seasonal Wetlands & Evaluation of Farmed Seasonal Wetlands	527262	Evaluation of Insect Serpins as Biopesticides	527293	Research Experiences for Undergraduates (REU) Supplement
536450	Feasibility Of Farming Seasonal Wetlands & Evaluation Of Farmed Seasonal Wetlands	527263	Cancer Protective Effects of Wheats with Different Antioxidant Potentials	527297	A Kirkwood-Buff Approach to Improved Cosolvent Force Fields
536455	Adding Value To Kansas Flour Milling Byproducts	527264	Molecular Dynamics Simulations of the Effects of Salts on the Aggregation Properties of Benzene in Water	527297	A Kirkwood-Buff Approach to Improved Cosolvent Force Fields
536462	Food Safety Consumer Education and Mass Media for Latino Audiences	527265	Selective Inhibitors of Pyruvate Dehydrogenase Kinase Isoforms	529219	Proteinase Systems in Insect Hemolymph (Year 9)
536469	Healthy Indoor Air For Kansas Homes	527267	NMR Studies of Inactive and Active Forms of Blood Coagulation Factor XII	529276	Role Of Ordered Helical Segments In Membrane Proteins
536494	KSU Meat Extension & Pilot Plant	527268	Cyclic Peptide Inhibitors of Enzymes of the Contact System	529279	Role of Ordered Helical Segments in Membrane Proteins
536734	Kansas Food Safety Plan of Work Projects	527269	Wheat Crop Improvement by Genetic Engineering	529344	Regulation of Mammalian Pyruvate Dehydrogenase
536740	USDA Recipe Analysis	527270	Molecular Genetics and Function of Pectinases in Two Animal Species	529411	Role of Adam 12 Disitegrin Domain in Myoblast Fusion
536741	HACCP Training Materials for Schools	527271	Evaluation of Insect Serpins as Biopesticides	529412	Role of Adam 12 Disitegrin Domain in Myoblast Fusion
536757	North Central Regional Aquaculture Center Extension Project	527272	Biotechnology Career Fellowship - Dr. Rethinasamy Velazhahan	529431	Molecular Dynamics Simulations of Effects of Salts on the Aggregation Properties of Benzene in Water
536765	Food-A-Syst for Food Producers and Home Food Preparerers	527274	Regulation of Protein Cross-Linking Reactions for Insect Cuticle	529432	Molecular Dynamics Simulations of Effects of Salts on the Aggregation Properties of Benzene in Water
536766	HACCP Implementation & Management in Small Meat and Food Processors in Four Mid-West States	527275	AstraZeneca Compounds as Inhibitors	529451	Structure and Function of HSP 100 Proteins
536768	Land Grant College HACCP Training and Support for State and Local Regulators on Meat and Poultry Processing HACCP Systems	527276	A Novel Mini-Protein Scaffold for Creation of Compact Structures for Retroviral-Mediated Intracellular Peptide Libraries	529461	Protein Kinase C Gamma in the Lens
536777	Feeding Value and Present Day Marketing Channels of Wheat Dockage	527277	Precise Mechanism of PDH Regulation of PDH Kinases		
536826	Improving HACCP Systems for Small Meat and Food Processors in Four Midwest States	527278	Functional Domains in ClpB, a Novel Molecular Chaperone		
536836	Extension Education Position	527279	Factor XII: Structure-Function Relationships		
536838	Improving Good Agricultural Practices (GAPs) for Small Fruit and Vegetable Growers and Processors in Kansas	527280	Immunogenic Tumor-Associated Mucin Peptides		
536864	Educational Programs on Food Safety and Irradiation	527281	Molecular Genetics of Enzymes and Structural Proteins of Aphid Saliva		
		527282	Enhanced Resistance to Scab by Genetic Engineering with Genes for Defense Proteins		
		527283	Wheat Crop Improvement By Genetic Engineering		
		527284	Cancer Protective Effects Wheats with Different Antioxidant Potentials		
		527285	Characterizing Functions of Multiple Phospholipase DS in Arabidopsis		
<b>Biological Ag Engineering</b>					
		520003	Agricultural Research Management Project		
		520003	Agricultural Research Management Project		
		525451	FY2001 KS Water Res. Res. Inst. - Real Time Crop Water Management and Irrigation Scheduling Web Site		
		527724	Identification of Wheat Quality Characteristics using Single Kernel Spectral Analysis		
		527725	USDA/ARS Automatic Control of an Instrumented Two-Roll Mill		
		527737	Atrazine Monitoring Project: Joint Nebraska/Kansas Blue River Study		
		527743	Fecal Coliform Contamination KS River Basins: Source, Monitoring, and Development, and Demonstration of Best Management Practices		
		527747	Water Conservation -- Increased Efficiency In Usage		
		527751	Joint State Atrazine Big Blue River Monitoring Project		
<b>Biochemistry</b>					
526556	Alcon Research Institute Award				
527239	Development of Insect Chitinolytic Enzymes as Biopesticides				
527244	Solution NMR Structure of Putative Ca <sup>2+</sup> -Binding C2-Domain in Phospholipase D				

## Active Projects

527753	South Central KS Irrigation Scheduling and Water Management Project	536746	Drift Minimization through Education: an Interactive Multimedia Cd & Internet Delivered Course of Study	526717	Evaluating the Role of Resource Heterogeneity in Restoring Grasslands
527754	Water Contaminants Evaluation Study	536796	South Central Kansas Irrigation Management Project	526723	Lipid Analysis of Migratory Sandhill Cranes
527755	Ecological Livestock Pollution Control - Performance Evaluation Part I	536825	Effective Utilization of Dairy Manure Nutrients	526725	Function Of Toused Protein Kinase In Arabidopsis Development
527756	EPA Experimental Program to Stimulate Competitive Research SEER2	536829	Demonstration of Best Management Practices to Avoid Groundwater Pollution from Application of Livestock Manure to Cropland - Part 2	526725	Function of Toused Protein Kinase in Arabidopsis Development
527757	EPA EPSCOR-Enhancement of Water Quality Research			526727	Long-Term Ecological Research in Tallgrass Prairie: The Konza Prairie LTER Program
527758	EPA Experimental Program to Stimulate Competitive Research	<b>Biology</b>		526730	Differentiation of Bone Marrow Macrophages in Space
527759	EPA EPSCOR-Enhancement of Water Quality Research	524062	Reclamation of Native Tallgrass Prairie at KS Army Ammunition Plant (Year 02)	526736	Biotic Interactions of Grassland Plants: Above & Belowground Linkages
527761	USDA/ARS Research Support Agreement T.O.	526583	Establishment and Operation of the KS Cooperative Fish and Wildlife Research Unit	526737	Testing of Water Filter and Purification Devices
527762	Precise Injection of NH using Pulse-Width Modulation Metering	526650	Coccidia of the World	526738	REU: Biotic Interactions of Grassland Plants: above-and Belowground Linkages
527763	Technical Assistance Water Users: S Central KS Irrigation Scheduling	526656	REU in Grassland Ecology at Konza Prairie Research Natural Area	526739	REU in Grassland Ecology at Konza Prairie Research Natural Area
527764	Water Conservation -- Increased Efficiency In Usage	526666	Konza Prairie Documentary Film	526741	Differentiation of Bone Marrow Macrophages in Space: Phase B
527765	Kanopolis Watershed Assessment, Part 1 - Federal \$	526670	Experimental Manipulation Of Variability In Precipitation In A Grassland	526742	Water Contaminants Evaluation Study
527766	Kansas Public Broadcasters Council Service and Incentive	526670	Experimental Manipulation of Variability in Precipitation in a Grassland	526743	Grassland Ecosystem Response to the Experimental Manipulation
527767	Ecological Livestock Pollution Control - Part 2	526682	Genomic Database for Cryptosporidium Spp	526744	Quality and Quantity of Suspended Material in Kansas Rivers: Demonstrating the Influence of Management Practices
527768	Automated Detection of Single Kernel Grain Attributes	526683	Evaluating the Role of Resource Heterogeneity in Restoring Grasslands	526745	In Vitro Assay for Cryptosporidium
527769	Research Support Agreement #58-5430-7-507 / T.O. #T15430205	526684	Long-Term Ecological Research in Tallgrass Prairie: Konza LTER Program	526746	Genetic Regulation of Developmental Fate
527770	Technical Assistance to Water Users: SC KS Irrigation Scheduling and Water Management Project	526688	Influence of Gravity as a Determinant in Cellular Biology	526748	Grassland Ecosystem Response to the Experimental Manipulation of Precipitation
527771	Pesticide Applicator Timing Used as a Best Management Practice to Improve Water Quality	526690	Administrative Support for Executive Committee KS NASA EPSCOR Program	526749	Belowground Responses to Manipulation of Precipitation Timing and Amounts in a Grassland Ecosystem
527772	Ecological Livestock Pollution Control - Part 3	526691	Administrative Support for Executive Committee KS NASA EPSCOR Program	526750	Acquisition of an Isotope Ratio Mass Spectrometer in the KSU-KU-Creighton Univ. Consortium
527773	Technical Assistance to Water Users: KSU Water Assistance Team Mobile Lab	526694	Influence of Gravity as a Determinant in Cellular Biology	526751	Use of Sandsage Habitat by Lesser Prairie-Chicken in Southwestern KS
527775	Performance Evaluation of Wetlands in NE Kansas	526695	"REU Supplement" - Long-Term Ecological Research In Tallgrass Prairie: Konza LTER Program	526752	Pest Control Implications of Several Tribolium Castaneum Genes
529441	Improving the Work Environment in Livestock Buildings	526702	Nitrogen Uptake, Retention and Cycling in Stream Ecosystems: Experiment	526753	REU: Biotic Interactions of Grassland Plants: Above and Belowground Linkages
529442	Improving the Work Environment in Livestock Buildings	526704	Land-Cover Change in Great Plains: Predicting Impacts of Regional Forest	526754	Evaluating Parasitocidal Activity of Compounds Provided by Merck Against Cryptosporidium Parvum
536226	Kansas Environmental Leadership Program (KELP)	526705	In Vitro Assay For Cryptosporidium Hri Acct#815-3471B & Hri 888-01	526755	USDA/ARS Research Support Agreement Task Order #T0-5430-207
536342	Indoor Air Quality Tools for Schools Demonstrations in Region 7 EPA States	526716	Fecal Coliform Contamination in KS River Basins: Source, Monitoring, Development, Demo of BMPs		
536710	Cooperative Extension Program in Crop Drying and Post Harvest Handling				
536713	Livestock Environmental Issues Curriculum Development and Implementation Project				

## Active Projects

526756	Long-Term Ecological Research in Tallgrass Prairie: The Konza Prairie	526784	Detection of Genes Encoding UV Repair Enzymes in Cryptosporidium	537661	Grant Radio Community Service Grant FY2001						
526756	Long-Term Ecological Research In Tallgrass Prairie: Konza LTER Program	526787	Kansas NIH COBRE Center for Cancer Experimental Therapeutics	<h3>Community Health</h3>							
526757	Salicyclic Acid Signaling Pathway and its Cross Talk with Jasmonic Acid and Ethylene Signaling in Plant Defense	527290	AstraZenica Materials Transfer Agreement								
526758	Belowground Carbon And Nutrient Dynamics In Arctic Tundra Under Changing Climates	527297	A Kirkwood-Buff Approach to Improved Cosolvent Force Fields								
526759	Role of Tetraspans in Regulating Cell Adhesion and Migration	527297	A Kirkwood-Buff Approach to Improved Cosolvent Force Fields								
526760	Use of Remote Sensing and GIS to Monitor and Model Bison Grazing Patterns at Landscape Levels	529040	Lens Membrane in Relation to Human Cataractogenesis								
526761	Quality and Quantity of Suspended Material in Kansas Rivers: Demonstrating the Influence of Best Management Practices - Part 2	529049	Lens Membrane in Relation to Human Cataractogenesis (Year 19)								
526762	Curriculum Integration Using Case-Based Computer-Assisted Instruction	529391	Functional Analysis of Anti-Apoptotic IAP Proteins								
526763	Apoptosis as an Anti-Viral Defense Mechanism in Insects	529391	Functional Analysis of Antiapoptotic IAP Proteins								
526764	Reactive Nanoparticles as Destructive Adsorbents	529402	dsRNAs of Cryptosporidium Parvum								
526765	Acquisition of Five Controlled Environment Chambers for Plant Research	536513	Outdoor Wildlife Learning Site (Owls)								
526766	EPA Fellowship Grant	536514	Outdoor Wildlife Learning Site (Owls)	536418	Opportunities for Prevention Education and Networking in Kansas (Open-K) *(was Offender Prevention and Education Network of Kansas (Open-K)*						
526767	Assessing Impact of Exposure of Periphyton to Linear Alkylbenzene Sulfonate with Microscale Sensors at the Procter & Gamble Expt. Stream Facility	<h3>Civil Engineering</h3>		536421	Rural Network Development Grant Program						
526768	Restoration of Native Grasslands and LCTA			527951	Lagoon Water Quality Study, Part 4	536440	Offender Prevention & Education Network of KS (Open-K Connectivity)				
526769	Optimizing Recovery of Cyclospora H2 - Receptor and Tetraspans as Novel Cancer Therapy Targets			<h3>Clinical Sciences</h3>		536502	Army Adolescent Growth & Development Training for State Strengthening				
526770	Influence of Gravity as a Determinant in Cellular Biology					528785	Determination Of Pulmonary Inflammation & Function After Admin Of Inhaled Beclomethasone & Injectable Dexamethasone In Horses	536736	Technical Support for the KHF Community-Based Developmental Assets Project In Abilene		
526771	Ecosystems in Transition: Causes and Consequences of Dramatic Shifts					<h3>Clothing, Textiles</h3>		536738	Technical Support for the KHF Community-Based Developmental Assets Project in Abilene - Year 2		
526773	Systematics and Geographic Relations of Phlox L. (Polemoniaceae)							528012	Soybean Alkyd Resins in Pigment Printing of Textiles and Materials	536739	Technical Support for the KHF Community-Based Developmental Assets Project in Abilene - Year 3
526774	Niche Separation Among Ectomycorrhizal Fungi - FEDERAL \$							528013	Research on Kenaf	536743	Rural Stroke Prevention - Agreement between the United Methodist Health Ministry Fund and KSU,CES
526775	Niche Separation Among Ectomycorrhizal Fungi - STATE \$							536139	Kansas Public Health and Environmental Information Library (KPHEIL) - Cooperative Agreement between KS Dept of Health and Environment and CES, KSU	536754	Agreement between KDHE & KSU, CES Rural Stroke Prevention
526778	SUBCONTRACTS FOR The Influence of Gravity as a Determinant in Cellular Biology							536775	Income for Cooperative Agreement Between KS Dept of Health & Environment and CES, KSU	536769	Cooperative Agreement Between the Regional Prevention Center and CES, KSU
526780	"Schoolyard" - Long-Term Ecological Research in Tallgrass Prairie: The Konza Prairie LTER Program							536804	Healthy Homes - Kansas	536770	Cooperative Agreement between KDHE and CES, KSU - Immunization Mailings
526781	Long-Term Postdoctoral Fellowship: Elucidation of Animal Diversity by Comparing Drosophila and Tribolium Wing Development	<h3>Communications</h3>						536773	KS Health Foundation Distinguished Professorship in Community Health		
								536722	Bugs in Kansas Book	536779	Connect Kansas
				536776	Impact Evaluation Plan			536802	Agreement Between KDHE and CES, KSU (Rural Stroke Prevention)		
				536795	Kansas Public Broadcasters Council Service And Incentive Program Fy01			536803	Team Nutrition Demonstration Project Schools		
				536795	Evaluation Of Tox-Guard As A Mold Inhibitor In High-Molasses Textured Feeds	536828	Healthy Places, Healthy Communities				
				536857	Wheat Commission / Biotechnology Communication	536831	Ogden Youth Center and CES, KSU Cooperative Agreement				
				536868	Kansas Library Network Board FY2001 Digitization Grant Kansas Climate Collection	536837	CYFERNet Technology				
				537660	FY 2000 Radio Community Service	536837	CYFERNet Technology				
						536858	Evaluation of the Kansas Department				

## Active Projects

of Health and Environment  
Community Health Intervention  
Process

### Coop Extension

- 536358 Haskell Extension Program for American Indian Youth  
536794 Penalty Mail Extension Mailing (Special Account)  
536794 Penalty Mail Extension Mailing (Prop #11867) / \*\* Formula Funds\*\*

### Dean & Director

- 525077 Research Activities (Research Apprenticeship H.S. Studies)  
536004 Secretarial Support - Huck Boyd National Institute For Rural Development  
536478 Work-Study Student Hourly Support Huck-Boyd Nat'L Institute for Rural Development

### Dean of Human Ecology

- 535009 Inter-Institutional Masters Degree and Postbaccalaureate Certificate in Family Financial Planning: Extending the Reach and Improving Accessibility  
536793 Kansas Public Broadcasters Council Service and Incentive  
536810 Food Stamp Awareness and Access Campaign  
536815 Kansas Food Stamp Nutrition Education Plan - KNN  
536816 Kansas Food Stamp Nutrition Education Plan - FNP

### Diagnostic Med./Pathobiology

- 521791 Virginimycin Effects on Rumen Metabolism in Cattle During Adaptation to a High Concentrate Diet  
521810 Riparian Buffer Initiative for the Kansas Potawatomie Reservation  
521836 Effect of Monensin on Frothy Bloat in Cattle Fed Bloat-Provocate, High-Grain Diet  
528396 Why Do Current Vaccines Fail to Reliably Prevent Kennel Cough in Racing Greyhounds  
528401 BHV-1 and BHV-5 Neuropathogenesis Studies  
528409 Enhancing Greyhound Immune Function and Reproductive Efficiency: Breeding for Optimal Histocompatibility Genotypes  
528410 Safety Studies in Dogs and Cats of a Fabric Refresher  
528413 Is Neoplastic and Neurologic Disease

in Scott Co, KS Related to Agricultural Chemical Exposure?

- 528414 Studies of the Safety of Fiber Ab Product in Household Pets  
528415 Production of Full-Length Nucleoprotein for PRRSV Antibody Elisa (KSU Elisa)  
528416 Fabric Refresher #2  
528417 Mouse Model to Assess Anthelmintic Efficacy/Resistancy against Migrating Larvae of Toxocara Canis in Greyhounds  
528418 Role of Glycoproteins gE and gI in BHV-1 and BHV-5 Differential Neuropathogenesis  
528419 Suppression of Heat in Racing Female Greyhounds  
528420 Evaluation of the Immunogenicity and Protective Effects of Recombinant Leukotoxin Proteins of Fusobacterium Necrophorum in Mice  
528421 Development of an Effective Vaccine for Canine Rotavirus.  
528422 Pseudorabies Laboratory Testing  
528423 Wheat Bran Lectin: A Safe, Food-Grade Mucosal Adjuvant  
528423 Wheat Bran Lectin: A Safe, Food-Grade Mucosal Adjuvant  
528423 Wheat Bran Lectin: A Safe, Food-Grade Mucosal Adjuvant  
528423 Wheat Bran Lectin: A Safe, Food-Grade Mucosal Adjuvant  
528425 Development of a Canine Model of E coli Induced Hemorrhagic Colitis and Hemolytic Uremic Syndrome: Phase II (previous # = 528403)  
528775 A Safety Study of Glade Carpet Deodorizer in Cats and Dogs  
530116 Pseudorabies Laboratory Testing  
530550 Suppression of Heat in Racing Female Greyhounds  
536295 Kansas Water Resources Adult Education  
536295 Curriculum Integration using Case-Based Computer-Assisted Instruction

### Director of AES

- 525081 Development and Management of Canola in the Great Plains Region  
525082 Development and Management of Canola in the Great Plains Region  
525083 Internet Publishing of Selected Full-Text Translations from Chinese Literature Pertaining to the Soybean Aphid  
525085 Consortium for Agricultural Soils Mitigation of Greenhouse Gases (CASMGs)  
525086 Consortium for Agricultural Soils

Mitigation of Greenhouse Gases (CASMGs)

### Entomology

- 520342 Insecticide Management of Field Crop Insects at Hays, Kansas  
522362 Development of a Corn Rootworm Areawide Management Program in Kansas  
522370 Molecular Basis of Wing Polymorphism in the Pea Aphid  
522373 Second Generation European Corn Borer/Southwestern Corn Borer Research  
522374 Second Generation European Corn Borer/Southwestern Corn Borer Research  
522380 Control of Residue-Borne Winter Wheat Diseases  
522389 Exchange of Aegilops Germplasm & Molecular Biochemical Techniques for Enhanced Aphid Resistance in Wheat  
522392 Alfalfa Weevil Insecticide Efficacy Research  
522392 Alfalfa Weevil Insecticide Efficacy Research  
522393 Bactrocera dorsalis Complex: Species Boundaries and Diagnostic Markers  
522394 Species Boundaries in the Wood Roach, Cryptocercus  
522395 Monitoring Insect Population Dynamics and Movement Using Molecular Markers  
522396 Tougaloo College Project  
522402 Heliothis virescens: Model to Study Mating-Induced Allotropism in Lepidoptera  
522405 Alfalfa Weevil Efficacy and Spray/No-Spray BT Corn Trial  
522406 Factors Influencing Flight & Dispersal of Lesser Grain Borer Adults  
522407 Facilitate Multiple Pest Resistant Wheat Germplasm Research  
522410 Monoclonal-Antibody-Based Identification Kit for Cotesia flavipes  
522412 Survival of Resistant European Cornborer on Transgenic Corn Lines  
522413 Wheat and Sorghum Crop Profiles  
522414 Kansas Pesticide Impact Assessment Program  
522417 Integrated Crop Management: Spider Mites on Greenhouse-Grown Ivy Geraniums  
522418 Establishment and Enhancement of the Prairie Arthropod Collection from the Konza LTER Site at Kansas State University  
522419 Evaluating the Effects of Pesticide

## Active Projects

522420	Mixtures on Aquatic Organisms Evaluating the Effects of Pesticide Mixtures on Aquatic Organisms	522444	ment of Stored Product Insect Pests Research Support Agreement #58- 5430-7-507 / T.O. #T15430206	Combining E-Coli 0157:H7 Control Programs and Feedlot Performance	
522422	Acquisition of a Low-Vacuum Scanning Electron Microscope for Bio Biological, Physical	522445	Using Crop Insurance to Improve Transgenic Corn Refuge Compliance	<b>Food/Feed Grain Inst.</b>	
522423	USDA/ARS Research Support Agreement	522447	Control of Residue-Borne Winter Wheat Diseases	525211	Feeds Post Harvest Handling/ Uganda
522424	USDA/ARS Research Support Agreement	522448	Consortium for Cereal Resistance to Pests	525219	Grain Storage and Management Project for Hot and Tropical Environments
522425	Investigation of Adult Male Gypsy Moth Dispersal Behavior	522449	Determine Physiological Effects of Insect Growth Regulators for Major Pest Species	525221	Informal Employment & Sustainable Livelihoods
522426	Milkweed Survey	522451	Product Transfer and Evaluation Agreement	525222	White Wheat Commercialization in Export Markets
522427	Wildlife Flea Infestation Correlated to Selected Urban Ecological Factors -- Graduate Fellowship	522452	Product Transfer and Evaluation Agreement	536697	Training Program For Paul Mwebaze
522428	Revision of Nearctic Metaphycus, with a Phylogenetic Analysis of Aphycini	522453	Efficacy of Lead Transgenic Corn Rootworm Event Against Western and Northern Corn Rootworm	<b>Foods &amp; Nutrition</b>	
522429	Phylogenetics of Termites	522455	Efficacy of New Lepidoptera and Coleoptera Active Transgenic Bt Corn Lines Against Several Corn Pests	528148	Zinc Deficiency - It'S Effect on Vitamin A Transport
522430	Efficacy of Lead Transgenic Corn Rootworm Events against Western and Northern Corn Rootworm	522456	Kansas Pesticide Usage Survey and Crop Profile Development	528152	Consumer Perception of Products Over Extended Use
522431	Efficacy of Lepidopteran Active Genes Against Stalk and Ear Feeding Insect Pests and Mycotoxin Occurrence	522456	Kansas Pesticide Usage Survey and Crop Profile Development	528157	Role of Carnitine in Fatty Acid Metabolism
522432	Efficacy of Lead Transgenic Corn Rootworm (CRW) Events Against Western and Northern CRW (Sw Kansas)	522456	Kansas Pesticide Usage Survey and Crop Profile Development	528158	Role of Carnitine in Fatty Acid Metabolism
522433	Provide Specimens Properly Identified to Species of Key Members of the Bactrocera Dorsalis Group for DNA Analysis	522457	A Plant Genomics Research and Training Career Advancement Program	528162	Product Methods Testing
522434	Spinosad and Transgenic Corn for Controlling Corn Borers	522458	Dow Research Project	528163	Odor of Plastics
522435	Efficacy of Lepidopteran Active Genes against Stalk and Ear Feeding Insect Pest and Mycotoxin Occur- rence	522459	Gall Mite Research Project	528164	Evaluation of Product Characteristics
522436	Evaluation of Transgenic Corn for Corn Rootworm Pest Management	522461	Biological Control of Stored Product Insects Pests	528165	Evaluation of Products
522437	Breeding Sorghum with Improved Grain Yield, Greenbug and Virus Resistance, and Pre-Flowering Drought Tolerance	522469	Insecticide Efficacy and Pest Population Monitoring / Damage-loss Assessments	528166	Effect of Bovine Plasma IgG Fraction (BPI) on the Lymphatic Absorption of Cholesterol in a Rat Model
522438	Investigations on the Soybean Stem Borer in Kansas	530929	Support for Research on Cat Fleas	528167	Elder's Use of Portion-Size Aids
522439	Biology and Management of Corn Borers in Kansas	536340	Pesticide Applicator Training - Salaries	528168	Role of Vitamin A in Lung Epithelial Cell Repair
522440	Efficacy of Lepidopteran Active Genes Against Stalk and Ear Feeding Insect Pests and Mycotoxin Occurrence	536730	Integrated Crop Management: Spider Mites on Greenbug-Grown Ivy Geraniums	528170	Sensory Evaluation of Pet Foods
522441	Diagnostic Molecular Genetic Markers to Detect Multi-Gene Greenbug Resistance in Wheat	536767	Management of North Central Region Pesticide Impact Assessment Program - Soybean, Beef & Corn	528171	Effects of Modified Tall Oil on Body Composition in Rats when Fed in Conjunction with other Nutritional Supplements
522442	Restoration of Native Grasslands and LCTA	<b>Food Animal Health</b>		528172	Visual Properties of Food
522443	Consortium for Integrated Manage-	528792	Ecology of E-Coli 0157:H7 in Beef Cow-Calf Operations from Ranch thru Feedlots	528173	Sensory Analysis Assistance
		528793	Ecological Distribution of E. coli O157:H7 Strains in Agricultural Environments	528174	Synthesis & Biological Evaluation of Cholesteryl Ester Transfer Protein Inhibitors: Chloropuuphenone and its Analogs
		528794	Epidemiological Aspects of	528175	Sensory Information Assistance
				528175	Sensory Information Assistance
				528176	Sensory Quality Evaluation
				528177	Refrigeration Knowledge and Practices of Consumers
				528178	Consumer Testing Assistance
				536333	Family Nutrition Program / Food Stamp Nutrition Education Plan
				536477	CATCHUP Collaboration - Nutrition
				536488	Family Nutrition Program / Food Stamp Nutrition Education Plan
				536747	KS Family Nutrition Program - Food Stamp Nutrition Education Plan
				536747	KS Food Stamp Nutrition Education Plan (KNN)



## Active Projects

536759	USDA/Army School-Age & Teen Project, Task I	523049	Evaluation of On-Line Moisture Sensors in an Extrusion Process Line	523078	IGP / Marketing Wheat - Mexico
536834	Match for Food Stamp Nutrition Education Plan	523051	USDA/ARS Research Support Agreement	523079	Optimizing Hard White Wheat Yield and Processing Performance in Kansas
536835	Improving Food Stamp Program Use Among Rural Older Adults: A Partnership for Research and Results	523052	USDA/ARS Research Support Agreement	523080	Development of Prediction Models for Wheat Quality Parameters
<b>Grain Sciences</b>		523053	Evaluation of On-Line Moisture Sensors in an Extrusion Process Line	523081	Quality of Sulfuryl Fluoride (Profume) Treated Wheat
522945	Quality Evaluation of Materials from KAES Wheat Breeding	523054	Development and Evaluation of Ultrasonic Devices for Management of Stored Product Moths and other Arthropods	523082	Market Scale Evaluation of White Winter Wheat in Flour Tortilla Manufacturing (sub with Univ of Sonora involved)
522986	Partial-Waxy Starch Mutants of Hard Wheats & Their Use in Oriental Noodle	523055	Sorghum Grain Storage and Handling Activity	523082	Market Scale Evaluation of White Winter Wheat in Flour Tortilla Manufacturing
522990	Grain Quality Oriented Marketing of Hard Winter Wheat	523056	The Laidig Wheat Millfeeds Test Project	523082	Market Scale Evaluation of White Winter Wheat in Flour Tortilla Manufacturing
523006	Use of SKCS Data for Commercial Milling of Soft Red Winter, Soft White & Hard Red Spring Wheat	523057	The Impact of Storage on Wheat Milling Performance	523082	Market Scale Evaluation of White Winter Wheat in Flour Tortilla Manufacturing (sub with Univ of Sonora involved)
523007	Development of a Stored Wheat Areawide Management Program in Kansas	523058	Marine Degradable and Edible Gun Plug (Phase 1 Option)	523082	Market Scale Evaluation of White Winter Wheat in Flour Tortilla Manufacturing (sub with Univ of Sonora involved)
523011	International Grains Program Advisory Board	523060	US Army Adhesive Project	523083	Pre-Harvest Prediction of Wheat End-Use Quality
523014	Quality of Hard Winter Wheat for Bread, Tortillas and Asian Noodles	523061	Evaluation of Tox-Guard as a Mold Inhibitor in High-Molasses Textured Feeds	523084	Materials Release Agreement
523016	Texture Characterization of Crunchy Foods During Chewing	523061	Evaluation Of Tox-Guard As A Mold Inhibitor In High-Molasses Textured Feeds	523085	Bakery Oven Humidity Measurement & Control (Match)
523019	Objective Characterization of Texture Properties of Crunchy During Chewing	523062	Chemical/Physical Modification of Gluten Protein and Characterization	523086	Wheat Marketing - Mexico
523021	Gluten Proteins that Improve Bread Quality	523063	Research Support Agreement #58-5430-7-507 / T.O. #T15430204	523087	Bakery Oven Humidity Measurement & Control
523022	Novel Sorghum Composite Flours Designed for Breadmaking	523064	Research Support Agreement #58-430-7-507 / T.O. #T15430205	523088	A Continuation of Development of a Stored Wheat Areawide Management Program in Kansas
523029	International Grains Program Advisory Board	523065	Wheat Screening for Natural Desirable Lipids	523090	Analysis of Superoxide Dismutase
523031	International Grains Program Advisory Board	523066	Spinosad: an Effective Alternative to Pesticides for Management of Stored-Wheat Insects	523103	Grain Facility System Analysis to Improve Adoption of Value-Enhanced Grain Handling and Marketing in the US
523036	Pellet Mash Conditioning: a Study to Better Understand the Process	523067	Quality Evaluation from KAES Wheat Breeding Programs	535173	Bakery Science and Management Professorship
523037	Characterization of Modified Gluten Protein	523068	International Grains Program Support Project	536232	Graduate Seminar Program
523038	Fellowship for the Management of Stored-Product Insects with Heat in Food-Processing Facilities	523069	Biodegradable Plastics from Wheat Starch and Polylactic Acid	536675	Market Development Grant - International Grains Program Grain Storage, Handling, and Sanitation Specialist
523039	Degradable Adhesive Performance of Modified Proteins for Navy Applications	523070	Tortilla Shelf Life Improvement	536696	Market Development Grant - International Grains Program Grain Storage, Handling and Sanitation Specialist
523041	Chemical/Physical Modification of Gluten Protein and Characterization	523071	Protein/Hardness Screening of Early Progeny Wheats	536783	White Wheat Commercialization
523044	Genetic and Environment Effects of Wheat Protein Quality During Grain Development	523072	Edible/Biodegradable Composites for Animal Feed Supplement Containers	536807	White Wheat Commercialization
523045	Extrusion Process for Pregelatinizing Modified Wheat Starch	523073	Optimizing Hard White Wheat Yield and Processing Performance in Kansas	<b>Hort/Forestry</b>	
523046	Development and Evaluation of Pest Management Programs at Retail Grocery Stores	523074	Heat Sterilization for Insect Management in Food-Handling Establishments	520516	Integrated Crop Management: Spider Mites on Greenhouse-Grown Ivy Geraniums
523048	Evaluation of On-Line Moisture Sensors in an Extrusion Process Line	523075	Pelleting Characteristics of Cottonseed Meal in Corn-Soy Based Rations	523860	Pecan Cultivar Evaluation
		523076	Pasta Ingredient Study	523870	The Evaluation and/or Assessment for Turfgrass
		523077	Consortium for Integrated Management of Stored Product Insect Pests	523873	The Evaluation and/or Assessment for Turfgrass (Greens Test)

## Active Projects

524063	Environmental Impacts of Reducing Pesticide Uses on Fort Riley (Year 02)	524088	Physiological Mechanisms Involved in Chilling and Cold Stresses to Induce Tolerant of Cucurbitaceae and Strawberry	525449	FY2001 Kansas Water Resources Research Institute - Program Administration / Management Description
524065	National Turfgrass Evaluation Program (National Bermudagrass Test Bg-97-08)	536121	Missouri Pecan Growers	525452	FY2001 KS Water Res. Res. Inst. - A Field Assessment of Direct-Push Technology for Site Characterization
524066	The Importance of Carbon Balance & Root Activity in Creeping Bentgrass Tolerance to Summer Stresses	536356	Environmental Quality Incentives Program	536792	Implementing TMDL's in KS: Abatement of Non-Point Sources of Fecal Coliform Bacteria
524067	Biology & Management of Spring Dead Spot In Bermudagrass	536485	Riparian Buffer Initiative for the Kansas Potawatomie Reservation	536797	National Needs Fellowship - Management & Marketing Agribusiness Food & Forest Products
524069	Use of Pre-Charged Zeolites to Provide Aluminum for Blue Sepal Coloration During Hydrangea Production	536693	Fullbright/Laspau Fellowship For Boris Sanjur	536798	Watershed Specialist Initiative
524070	Turfgrass Testing	536745	Benefits and Design of Kansas Riparian Forest Buffers	536801	Planning Workshop for the Leadership Team of the Animal Waste Initiative
524071	Evaluation of Ornamental Species for the Great Plains	536780	Riparian Buffer Education to Improve Surface Water Quality in the Blue River of Nebraska and Kansas	536819	Abatement of Fecal Coliform Bacteria - Part 1
524073	Visitor Satisfaction of Fee-Based Interpretation in the Us Forest Service: Evaluation	536781	Water Quality Improvement of Vegetated Riparian Areas and Buffers	536821	Waste Management Water Quality Protection Learning Center
524074	Integrated Crop Management: Spider Mites on Greenhouse-Grown Ivy Geraniums	<b>Hotel, Rest. Inst/ Mgmt.</b>		536848	Implementing TMDL's in Kansas: Abatement of Nonpoint Sources of Fecal Coliform Bacteria
524075	Relationship between Tissue Nitrogen & Phosphorus Concentrations of Impatiens & Thrips Infestation & Damage on Impatiens Floriculture Research	536683	Interdisciplinary Modules to Teach Waste/Residue Management in the Food Chain	<b>Northeast Area Extension</b>	
524076	Relationship between Tissue Nitrogen & Phosphorus Concentrations of Impatiens & Thrips Infestation & Damage on Impatiens	<b>KWRRI</b>		536110	Kansas Agriculture and Rural Leadership, Inc.
524077	Noxious Weed Pesticide Reduction Study/Support of Developing Best Management Practices (BMPs) for Land Management Systems at Ft Riley	525360	Integrated Ag Management Systems (IAMS) Using BMPs to Improve the Quality of Kansas Surface Waters	536839	Agricultural, Food, and Public Policy Preference Survey
524078	Converting Transition Zone Fairways from Perennial Ryegrass to Kentucky Bluegrass or Seeded Zoysiagrass	525365	Midwest Technology Assistance Center for Small Public Water Systems	<b>Northwest Res. Ext. Center</b>	
524079	Effects of Bacterium (Azospirillum Brasilense) and Vesicular Arbuscular Mychorrhizae (Glomus Intraradicies) on Cool-Season Turfgrass	525366	The Livestock Environmental Stewardship Initiative	525761	Other Multi Accounts Crop Performance
524081	A Pilot Project for the Testing and Assessment of Participatory Farm Monitoring to Achieve TMDL Goals	525367	Integrated Ag. Mgmt. Systems (IAMS) Using BMP's to Improve the Quality of Kansas Surface Water	525772	Water Conservation--Increased Efficiency in Usage
524082	A Pilot Project for the Testing and Assessment of Participatory Farm Monitoring to Achieve TMDL Goals	525437	FY 1999 State Water Research Institute Program	525774	Optimal Planting Strategies for Irrigated Corn Production with Limited Well Capacities
524083	Bioeconomic Assessment of Biologically Based Pest Management on Ivy Geranium	525438	FY 1999 State Water Research Institute Program	525775	Planting Dates and Maturity Group Effects on Soybean Production in Kansas
524084	Converting Transition Zone Fairways From Perennial Ryegrass To Kentucky Bluegrass Or Seeded Zoysiagrass	525439	FY 1999 State Water Research Institute Internship- Fort Hays State University and Wichita State University	525777	Water & Sediment Control Basin & Underground Outlet Construction Project
524085	Minimum Irrigation Requirements for Sod Production in Transition Zone	525440	FY2000 Kansas Water Resources Research Institute	525778	Strategies for the Management of the Sunflower Stem Weevil
524086	KSU Gardens	525441	FY2000 Kansas Water Resources Research Institute	525779	Quantifying Heat and Water Stress Impacts on Yield and Water Use for Oilseed Sunflower Crops
524087	KSU Gardens Tourist Brochure	525442	Marine Degradable And Edible Gun Plug	<b>Plant Pathology</b>	
		525444	Integrated Ag. Management Systems (IAMS) Using BMP's to Improve the Quality of Kansas Surface Water	524475	Non-Conventional Plant Improvement Technology
		525445	Green Topeka: Tree-Based Buffer Planning in the Shunganunga Creek Watershed	524478	Fusarium Research
		525446	Integrated Ag Mgmt Systems (IAMS) Using BMP's to Improve the Quality of Kansas Surface Water	524565	Nematode and Soybean Research
				524597	Agroecology & Biotechnology of Fungal Pathogens of Sorghum and Millet from the Greater Horns of Africa

# Active Projects

524599	Editor Position for Applied & Environmental Microbiology	524651	Functional and Comparative Genomics of NBS-LRR Encoding Genes	524673	Functional Genomics of the Interactions of Tomato and Pseudomonas Syringe pv Tomato DC3000
524601	Genetic Diversity in Cephalosporium Maydis and Other Stalk Rotting Fungi of Maize in Egypt	524652	Microsatellite Marker Development and Construction of a Microsatellite Size Database	524674	Letter of Understanding
524607	Predicting Durability of Disease Resistance Based on Analysis of Cost of Pathogen Adaptation	524652	Microsatellite Marker Development And Construction Of A Microsatellite Size Database	524675	Effects of Environmental Variation on Plant Disease in the Tallgrass Prairie
524608	Control of Residue- Borne Winter Wheat Diseases	524653	Development of Scab Resistant Wheat Cultivars for Kansas	524678	Molecular Characterization of Novel Rp1 Genes
524609	Analyses of Roles of Viral & Host Proteins in Virus Movement in Planta	524654	Improvement of Soybean Disease Resistance via Genetic Engineering	524683	(Microarray Scanner and) Phosphoimager as Capital Improvements for Plant Genomic Infrastructure
524614	Molecular Characterization of Novel Rpl Alleles	524655	Over-Expression of Antifungal Proteins in Transgenic Soybean	524683	(Microarray Scanner and) Phosphoimager as Capital Improvements for Plant Genomic Infrastructure
524615	Biology & Management of Spring Dead Spot in Bermudagrass	524656	Improving Soybean Profitability Through Breeding	524683	Microarray Scanner and Phosphoimager as Capital Improvements for Plants Genomic Infrastructure
524620	Determine the Survivability of Micro- and Macro-Conidia of Claviceps Africana	524657	Integrated Management of the Soybean Cyst Nematode and Charcoal Rot	524683	Microarray Scanner and Phosphoimager as Capital Improvements for Plants Genomic Infrastructure
524621	Transcription Activation By Avrxa10 and Avrxa7 In Resistance and Pathogenicity	524658	Application of Resistance and Defense Related Genes to Increase Durability of Rice Development (RDA) of the Republic of Korea	524683	Microarray Scanner and Phosphoimager as Capital Improvements for Plants Genomic Infrastructure
524625	Collaborative Crop Research Program, (USA-KSU)	524659	Development of Scab Resistant Winter Wheat Cultivars for Kansas	524684	Can We Debilitate the Wheat Scab Fungus with a Virus?
524626	Collaborative Crop Research Program, (China)	524660	Facilitate Multiple Stress Resistant Wheat and Alfalfa Germplasm	524685	Diversity of North & South American and Korean Populations of Gibberella Zeae
524627	Using Tomato R Gene Pto to Promote Rce-Nonspecific Resistance	524660	Facilitate Multiple Stress Resistant Wheat and Alfalfa Germplasm	524686	Fellowship Agreement - Perenniality, Cytogenetics, and Disease Resistance of Thinopyrum spp. X Triticum aestivum Hybrids and the Genetic Heterogeneity Effects of Disease Epidemiology
524630	Signal Transduction In Tomato Disease Resistance	524661	Nonhost Resistance Mechanisms In Arabidopsis	536061	Training in Molecular Basis of Plant Disease and Resistance at Kansas State University
524631	International Scholarship Fund - Narvaez-Corrales	524662	Characterization of the Pathogenicity Protein AvrXa7	536601	Food & Agricultural Sciences Nat'L Needs Graduate Fellowship Grants Program (Plant Biotechnology)
524635	Genetics of the Breeding Systems and Sexual Fertility in the Rice Blast Fungus	524663	Roles of Pathogen-Inducible EREBP-like Sequences in Disease Resistance		
524637	Rice Deletion Mutants for Dissection of Quantitative Resistance	524664	Utilization of Candidate Genes for Analyzing Disease Resistance and Improving Broad-spectrum Disease Resistance in Rice		
524638	Maize Resistance Genes Expressed in Transgenic Cereals	524665	Isolation of Maize Genes Controlling Defense Reactions to Pathogens of Cereals		
524640	Wheat Genetics Research Center at KSU	524666	Research Support Agreement #58-5430-7-507 T.O. #T15430202	536220	KS Ag Mediation Service (KAMS) (Federal \$) MOU between KS Ag Mediation Service (KAES) and KS Natural Resources Conservation Service (NRCS)
524640	Wheat Genetics Resource Center at Kansas State University	524667	Wheat Genetics Resource Center and Its Contribution to the Kansas Wheat Industry	536220	(Producers \$) MOU Between KS Agric. Mediation Service (KAES) & KS Natural Resources Conservation Service (NRCS)
524642	Transgenic Wheat Expressing Maize Rp1 Genes	524668	Transgenic Wheat Expressing Maize Rp1 Genes	536221	Kansas Rural Development Council Site-Specific No-Till Information
524642	Transgenic Wheat Expressing Maize Rp1 Genes	524669	Molecular Analysis of Pto-Avr Recognition Specificity	536330	MOU between KS Ag Mediation Service (KAES) & KS Farm Service (FSA)
524643	Great Plains Cereals Biotechnology Consortium	524670	Control of Corn Rootworm Using Genetically Engineered Corn	536349	(Producers \$) MOU between KS Agricultural Mediation Service (KAES) & KS Farm Service
524646	Great Plains Cereals Biotechnology Consortium (GPCBC)	524671	Control of Residue-Borne Winter Wheat Diseases		
524647	USDA/ARS Research Support Agreement T.O. #5430202	524672	Assessment of the Insular Organization of the Wheat D Genome by Physical Mapping		
524649	The Structure and Function of the Expressed Portion of the Wheat Genomes				
524650	Compounds Useful to Affect Resistance in Plants and Methods Related Thereto. Genetic Sequences Conferring Pathogen Resistance				

## Production Mgmt & Nat. Res.

536220	KS Ag Mediation Service (KAMS)
536220	(Federal \$) MOU between KS Ag Mediation Service (KAES) and KS Natural Resources Conservation Service (NRCS)
536221	(Producers \$) MOU Between KS Agric. Mediation Service (KAES) & KS Natural Resources Conservation Service (NRCS)
536231	Kansas Rural Development Council
536330	Site-Specific No-Till Information
536349	MOU between KS Ag Mediation Service (KAES) & KS Farm Service (FSA)
536350	(Producers \$) MOU between KS Agricultural Mediation Service (KAES) & KS Farm Service

## Active Projects

536484	Kansas Agricultural Mediation Service
536486	Income for Kansas Agricultural Mediation Service
536493	Kansas Extension Farm Safety Performance Plan
536702	Sustainable Research & Education Program
536712	NCR SARE Professional Development Program Coordinator
536733	Sustainable Agriculture Research and Education Program
536744	Environmental Farm Analysis & Planning: a Whole Farm Planning Training Exercise Designed for Extension and NRCS Personnel
536744	Environmental Farm Analysis & Planning: a Whole Farm Planning Training Exercise Designed for Extension and NRCS Personnel
536749	KS Agricultural Mediation Service
536750	Income for KS Agricultural Mediation Service
536752	NCR SARE Professional Development Program Coordinator (Part 2)
536808	Integrated Pest Management - Salary Account - FORMULA FUNDS
536809	Integrated Pest Management - OOE Monies - FORMULA FUNDS
536812	Sustainable Agriculture Research and Education Program - (Kansas Professional Development Program)
536813	Kansas Agricultural Mediation Service
536814	Income for Kansas Agricultural Mediation Service
536833	Renewable Resources Extension Act Program (RREA Formula Funds)
536835	Improving Food Stamp Program Use Among Rural Older Adults: A Partnership for Research and Results
536853	NCR SARE Professional Development Program Coordinator
536874	Subcontracts for Environmental Farm Analysis and Planning Training Exercise Designed for Extension and NRCS Personnel

### School of Family Studies

536005	Income for KS Health Foundation Projects
536495	Expanding Access to USDA & Land-Grant Universities Child Care Information, Programs & Services
536716	National Childcare Initiative Income Addition Alternative Account
536723	Path Intergenerational Project
536751	NNCC Internet Web Site & Database Recruitment for Air Force Internships Pilot Project

536753	CYFAR Supported Extension Staff Training
536755	Implementing the Coop. Extension System Child Care Initiative
536763	Veterinarian HACCP Training Program Reducing on-farm FOODBORNE Pathogens
536790	Income USDA / Army
536791	Immunize for Life Promotion and Education
536791	Immunize For Life Promotion And Education
536822	Path Intergenerational Project
536823	Implementing the CES Extension CARES Initiative
536842	SUBCONTRACTS for Expanding Access to USDA & Land-Grant Univ. Child Care Info. Program & Service
536869	Healthy Indoor Air for Kansas Homes

### Sociology, Anthropology

527628	Agriculture in the Internet Economy
527629	Evaluation of the Healthwave Program
527630	SGER: Collaborative Research: The Internet and the U.S. Agricultural System

### Southcentral Area Extension

536824	Healthy People Healthy Communities and National Network for Health-Immunization Work Group
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### Southeast Area Extension

520002	Management Information System For Local Governments
535865	Double Crop Soybean Performance Test - Extension Area Offices
536788	A Short Season Corn Educational Program in Southeast Kansas
536789	A Soybean Extension Educational Program in Southeast Kansas

### Southeast Res. Ext. Center

526416	Soybean Research in Southeast Kansas
526417	Integrated Management of the Soybean Cyst Nematode and Charcoal Rot
526418	Improving Soybean Profitability through Breeding
526419	Effects of Crop Rotation and Tillage Systems on Soybean Yield in SE KS
526419	Effects of Crop Rotation and Tillage Systems on Soybean Yield in SE Kansas
526420	Southeast KS Crop Performance Testing Program

526421	Effect of Supplementation Method on Grazing and Subsequent Feedlot Performance of Stocker Steers
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### Southwest Area Extension

527577	Chemical Evaluation SW Area Ext. Multi-Sponsored Acct.
536700	Demonstration of Best Management Practices to Avoid Groundwater Pollution from Application of Livestock Manure to Cropland
536818	Irrigation Scheduling Demonstration of Efficient Water Use by Corn in Western Kansas

### Southwest Res. Ext. Center

526193	Water Conservation--Increased Efficiency In Usage
526195	Optimal Planting Strategies for Irrigated Corn Production with Limited Well Capacities
526196	Windbreak Establishment
526197	Long-Term, Large-Scale Dryland Cropping Systems
526199	Planting Dates and Maturity Group Effects on Soybean Production in Kansas
526200	Manure & Water Management for Environmental Protection & Corn Production
526201	Water Conservation -- Increased Efficiency in Usage
526202	Compatibility of Intensified Cropping Systems & Wildlife Habitat in Western Kansas

### Vet Diagnosis

528901	The Use Of Acid-Stable Interferon To Augment The Immune System Of Racing Greyhounds
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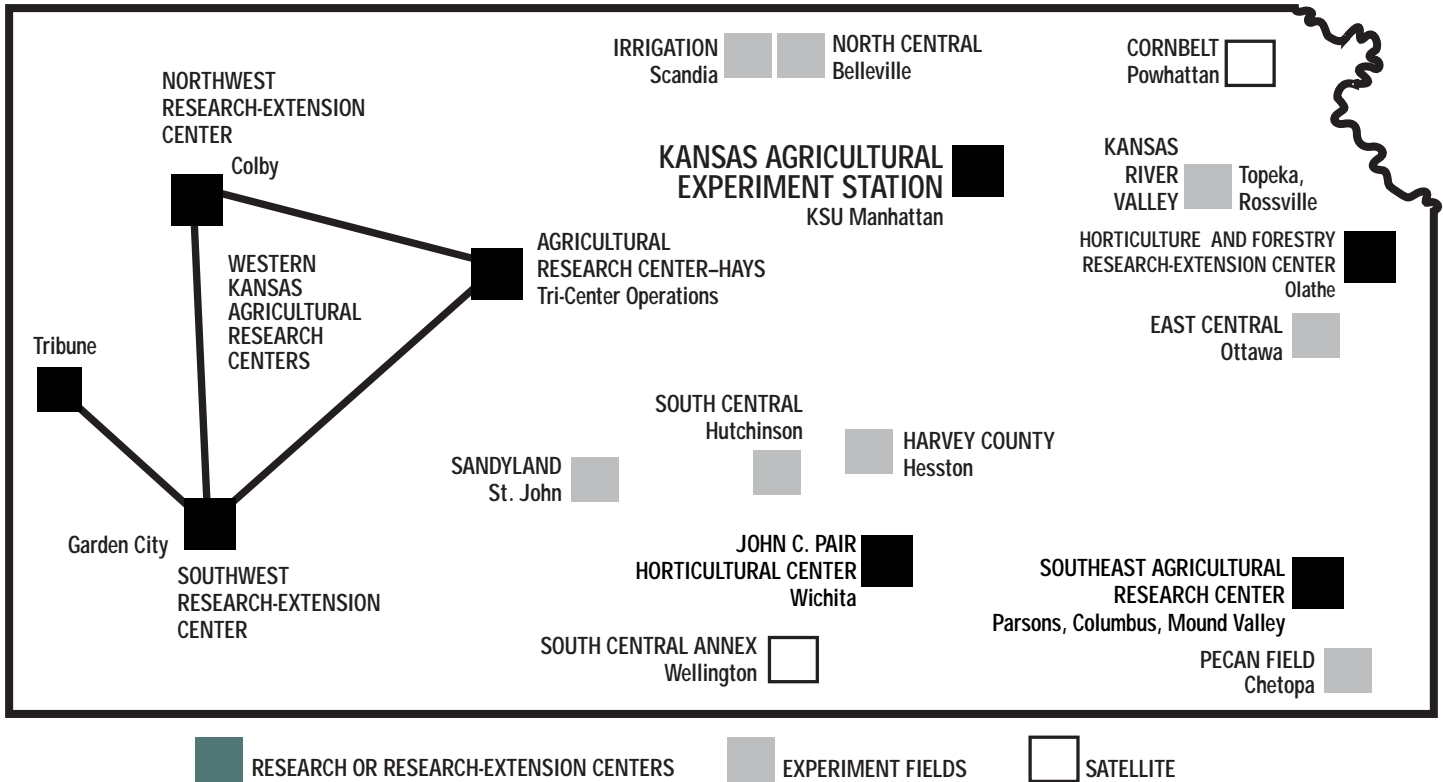
### Wheat Research Center

527590	Hard White Wheat Varieties' Milling Performance
527591	Hard White Wheat Varieties' Milling Performance
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**FY2001 Kansas Agricultural Experiment Station Income and Disbursement Statement**

	5.98%	53.13%	12.92%	27.97%		
FY2001 Funding	\$3,346,243	\$29,731,077	\$7,228,930	\$15,652,293	\$55,958,543	
	Federal	State	Fees	Sponsors	Total	Percent
<b>FY2001 Expenditures</b>						
Faculty and Administrative Salaries	\$2,248,461	\$18,521,528	\$895,002	\$8,312,889	\$29,977,880	53.57%
Classified and Student Salaries	\$209,163	\$5,950,812	\$875,684	\$1,437,127	\$8,472,786	15.14%
Contract Services and Travel	\$337,471	\$2,258,561	\$1,455,480	\$2,748,580	\$6,800,092	12.15%
Supplies and Material	\$448,069	\$1,843,418	\$3,462,752	\$2,285,801	\$8,040,040	14.37%
Equipment	\$103,079	\$1,156,758	\$540,012	\$867,896	\$2,667,745	4.77%
<b>Totals</b>	<b>\$3,346,243</b>	<b>\$29,731,077</b>	<b>\$7,228,930</b>	<b>\$15,652,293</b>	<b>\$55,958,543</b>	<b>100%</b>

# Kansas State University Statewide Agricultural Research Services



## Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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JANUARY 2002

It is the policy of Kansas State University Agricultural Experiment Station and Cooperative Extension Service that all persons shall have equal opportunity and access to its educational programs, services, activities, and materials without regard to race, color, religion, national origin, sex, age or disability. Kansas State University is an equal opportunity organization. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Marc A. Johnson, Director.