APPENDIX A

OSU Department of Animal Science

Cattle and Beef Research

Title	Sponsor	Award Amount
Animal Health Research		
	Lilly Research Lab Div.	$ 6,500
Controlled-release human buffer	Church & Dwight	$ 60,600
Laidlomycin Propionate/Tylosin study	Syntex USA, Inc.	$ 21,000
Winston Chemical/OCAST Match	Winston Chemical, Inc.	$ 1,000
Evaluation of the influence of megalec on energy balance and Insulin-like growth factor-I in lactating dairy cows	Church & Dwight	$ 10,000
Evaluation of the effects of a rumen buffer (Alkaten) on intake, milk yield, and composition, and diurnal excretion rates of minerals in lactating dairy cows	Church & Dwight	$ 71,400
Use of Propionibacteria for treatment of cidosis in beef cattle	Far-Mor Biochem	$ 60,332
Regulation of HMG-CoA Reductase vi HMB supplementation	Pro-Edge, Ltd.	$ 2,000
Use of Propionibacteria as a direct-fed microbial: applications for nitrate toxicity	Far-Mor Biochem	$ 71,200
Micotil vs. naxcel for the treatment of BRD	Lilly Research Lab Div.	$ 7,500
Effect of Laidlomycin, Propionate, Monensin, and Lasalocid on plasma lipid profiles of steers	Syntex Animal Health	$ 800
Exploration applications of Propionibacteria in production agriculture	Far-Mor Biochem	$ 5,000
Field research with copper boluses in Ok	Schering-Plough Animal Health	$ 4,120
Evaluation of the effects of vaccines on feed intake and injection site reactions	Miles Animal Health	$ 6,960
Identification and implementation of critical control points (CCPs), and detection and control of external pathogens through microbial mapping - Phase I	Natl. Livestock & Meat Board	$ 16,000
Beef cattle research	Pfizer Animal Health, Inc.	$ 24,050
Steroid regulation of pulsatile-Gonadotropin secretion	OK Center for Applied Research	$ 34,928
Steroid regulation of pulsatile-Gonadotropin secretion	OK Center for Applied Research	$ 34,964
Steroid regulation of pulsatile-Gonadotropin secretion	OK Center for Applied Research	$ 7,740
Regulation of pulsatile secretion of Gonadotropins in beef cows	USDA/CSREES	$ 103,237
Decreasing intramammary infections and increasing milk production of beef cows	OSU Experiment Station	$ 4,000
Animal Health Research Group Total		**$ 553,331**
Reproduction and Breeding Genetics Research		
Efficacy of the intravaginal progesterone releasing insert to: a)Advance the date of the initial estrus and b) Synchronize estrus in postpartum suckled beef cows	InterAg	$ 17,066
Onset of estrus, ovulation, and luteal function in peripubertal heifers given a controlled release intravaginal implant of Progesterone with or without a subsequent injection of Estradiol - Trail#C96-6	InterAg	$ 4,332
Control of puberty and reproduction in cattle	OK Center for Applied Research	$ 40,599
Role of conceptus interferon-like proteins on the uterus	OK Center for Applied Research	$ 29,172
Control of puberty and reproduction in cattle	OK Center for Applied Research	$ 38,535
Role of conceptus interferon-like proteins on the uterus	OK Center for Applied Research	$ 28,857
Role of conceptus interferon-like proteins on the uterus	OK Center for Applied Research	$ 27,802

Title	Sponsor	Award Amount
Control of puberty and reproduction in cattle	OK Center for Applied Research	$ 42,239
Mapping Mouse genes for growth obesity and reproduction	OK Center for Applied Research	$ 54,657
Mapping Mouse genes for growth obesity and reproduction	OK Center for Applied Research	$ 62,302
Hormonal control of ovarian function during underfeeding	OK Center for Applied Research	$ 34,998
Nutritional, genetic, and hormonal control of reproduction in sheep and cattle	USDA/OICD	$ 3,047
Role of Insulin-like Growth Factor-I and its receptor in ovarian follicular function	USDA/CSREES	$ 130,000
Physiological and endocrine basis for nutritional and Immunological control of reproduction in US and Irish cattle	USDA/FAS/MSD/FAA	$ 46,000
Involvement of a unique Inter-a-Trypsin Inhibitor in establishment of pregnancy	USDA/CSREES	$ 183,000
Optimizing time of insemination to increase pregnancy rates in beef cattle	OSU Experiment Station	$ 12,000
Insulin-like growth factor binding proteins in Bovine ovarian granulosa and thecal cells	OSU Experiment Station	$ 20,000
Improving reproduction efficiency of cattle	OSU Experiment Station	$ 23,000
Breeding to optimize maternal performance and reproduction of beef cows in the Southern region	OSU Experiment Station	$ 3,000
Gonadotropin secretion and reproductive efficiency of beef cows	OSU Experiment Station	$ 14,000
Evaluation of crossbred cows with different proportions of Brahman breeding under alternative management systems and the genetics of body composition in beef cattle	OSU Experiment Station	$ 65,500
Gene targeting in cattle	OSU Experiment Station	$ 50,000
Determination of metabolic signals that control reproduction in beef cattle	OSU Experiment Station	$ 24,000
Regulation of early conceptus development and survival of the cow	OSU Experiment Station	$ 65,500
Role of Insulin-like growth factor-I (somatomedin C) in ovarian follicular function	OSU Experiment Station	$ 63,625
Development of gene transfer systems and cloning vectors for Propionibacteria	OSU Experiment Station	$ 23,000
Use of fiber-based supplements to improve reproductive efficiency of cows and heifers	OSU Experiment Station	$ 29,000
Improving reproduction efficiency of cattle	OSU Experiment Station	$ 34,000
Improving reproduction efficiency of cattle	OSU Experiment Station	$ 70,675
Development of polymorphis microsatellite DNA markers in cattle	OSU Experiment Station	$ 39,500
Performance of beef cows with divergent genetic merit for milk production	OSU Experiment Station	$ 32,000
Reproduction and Breeding Genetics Research Group Total		**$ 1,311,406**
Nutrition Research		
Field Trial - intake evaluation of generation 2, new processed weatherized minerals	Moorman Manufacturing Co.	$ 3,000
Medicated feed applications to pasture cattle	Roche Vitamins, Inc.	$ 20,000
Consolidation acct - beef cattle feed additive research	Various/consolidated	$ 900
Effect of summer supplementation of stocker cattle grazing native range	Farmland Industries, Inc.	$ 25,000
Use of nitrate reducing bacteria in silage and as direct-fed microbials	Great Lakes Biochemical Co.	$ 19,600
The influence of Lysocellin on the consumption of free-choice mineral supplement by stocker cattle	Pitman-Moore	$ 4,500
Biological control of pathogenic and spoilage microorganism	Great Lakes Biochemical Co.	$ 10,500

Title	Sponsor	Award Amount
Effect of Dura Se-120 Bolus on performance of wheat pasture stocker cattle	Schering-Plough Animal Health	$ 3,509
A comparison of the abilities of ruminal microflora from cannulated seers fed various ionophore-containing diets to alter pH in vitro, and the effects of each ionophore on rumen function, digestibility, and bacterial chemical composition	Syntex Agribusiness	$ 31,210
Stocker cattle research	Continental Grain Co.	$ 6,500
Licensing agreement: Propionibacteria for silage innoculents	Far-Mor Biochem	$ 8,000
Biological control of pathogenic and spoilage microorganism	Far-Mor Biochem	$ 11,000
Effects of Cobactin II on ruminal fermentation, ruminal, and fecal pH, diet digestibility, ruminal turnover, protozoa numbers and bacterial composition	Bio-Techniques Lab, Inc.	$ 15,000
Effects of Cobactin Ii on feed intake and digestibility, ruminal pH, fiber digestion, cellulose activity and protozoa numbers	Bio-Techniques Lab, Inc.	$ 9,000
Far-Mor Royalty (Sub-Account to AB-5-13890)	Far-Mor Biochem	$ 14,070
Silage inoculant stability tests	Agtech Products, Inc.	$ 1,500
Propionibacteria as direct-fed microbials: applications for the beef cattle industry	Agtech Products, Inc.	$ 20,000
Propionibacteria as direct-fed microbials: applications for the beef cattle industry	Agtech Products, Inc.	$ 57,629
Effect of protected Methionine on live weight gain of young, light-weight beef calves grazing wheat pasture	Syntex Agribusiness, Inc.	$ 100,000
Effect of Bambermycins (Ginpro TM), Lasalocid (Bovatec TM), and Monensin (Rumensin TM) fed vi daily supplement on body weight gain of stocker cattle on pasture	Hoechst-Roussel Agri-Vet. Co.	$ 9,200
Comparing IMPLUS, RALGRO, and SYNOVEX	Upjohn Company	$ 5,000
Trial implementing anabolic implants for stocker cattle	Hoechst-Roussel Agri-Vet. Co.	$ 31,200
Innovative direct fed microbials for beef cattle	Agtech Products, Inc.	$ 70,000
Far-Mor Royalty	Great Lakes Biochemical Co.	$ 10,000
Genetic Comparison P9 & P42	Great Lakes Biochemical Co.	$ 600
Zinpro 4-Plex	Zinpro, Inc.	$ 2,000
Vitamin E/High moisture corn particle size trial	Hoffman LaRoche, Inc.	$ 16,000
Anabolic agents for feedyard heifers	Horton Feedlot & Research	$ 28,150
Old World Bluestem Range Research	Noble Foundation	$ 20,000
Effect of nutrition on beef cattle reproduction	Noble Foundation	$ 20,000
Effects of implants on performance of calves dry-wintered on Native Tallgrass Prairie and subsequent cattle performance	Hoechst-Roussel Agri-Vet. Co.	$ 12,000
Use of Aureomycin and Lasalocid in wheat pasture stocker programs	Roche Vitamins, Inc.	$ 6,000
Development of a commercial feed project	OK Center for Applied Research	$ 16,508
High moisture ear corn for feedlot cattle	OK Center for Applied Research	$ 58,580
Development of a commercial feed project	OK Center for Applied Research	$ 19,686
High moisture ear corn for feedlot cattle	OK Center for Applied Research	$ 58,580
Development of a commercial feed project	OK Center for Applied Research	$ 18,105
Innovative direct fed microbials for beef cattle	OK Center for Applied Research	$ 42,500
Innovative direct fed microbials for beef cattle	OK Center for Applied Research	$ 52,500
Hormonal control of ovarian function during underfeeding	OK Center for Applied Research	$ 34,998

Title	Sponsor	Award Amount
Organic Matter and N digestibility of Knaf Forage specific cooperative agreement	USDA/ARS	$ 9,000
Increasing profitability of wheat/stocker cattle enterprise	USDA/CSREES	$ 988,105
Special Award/Willard Sparks Beef Research Center	USDA/CSRS/SG	$ 727,500
Increasing profitability of wheat/stocker cattle enterprise	USDA/CSREES	$ 455,751
Increasing profitability of wheat/stocker cattle enterprise	USDA/CSREES	$ 266,646
Reducing winter feedlots with stockpiled forages	OSU Experiment Station	$ 25,000
Increasing profitability of wheat/stocker cattle enterprise	OSU Experiment Station	$ 7,000
Metabolize protein lactating beef cows grazing native range	OSU Experiment Station	$ 8,000
Evaluation of degradable intake protein sources for cattle consuming low quality forages	OSU Experiment Station	$ 11,000
Characterization of protein fractions and digestibility of native and introduced forages of OK	OSU Experiment Station	$ 28,500
Enhancing OK competitive advantage in the cattle industry through the use of byproduct feeds	OSU Experiment Station	$ 25,000
Increasing profitability of wheat/stocker cattle enterprise	OSU Experiment Station	$ 7,000
Effects of nutrition, management, and medical treatment on the health and performance of newly-arrived stressed stocker cattle	OSU Experiment Station	$ 36,000
Wheat middlings as a supplemental energy and protein source for beef cattle	OSU Experiment Station	$ 21,000
Microbial protein synthesis in and escape of dietary protein from the rumen	OSU Experiment Station	$ 41,250
Utilization of wheat forage by growing cattle	OSU Experiment Station	$ 10,000
Increasing profitability of wheat/stocker cattle enterprise	OSU Experiment Station	$ 16,110
Impact of background, feed management, and additives on performance and mature size of feedlot cattle	OSU Experiment Station	$ 31,050
Nutrient utilization of sorghum grain hybrids and amino acid flow on high tannin sorghums in cattle	OSU Experiment Station	$ 42,500
Simulation of stocker and cow components of beef production systems	OSU Experiment Station	$ 4,000
Cattle response to grazing and brush management	OSU Experiment Station	$ 25,500
Rumenal bypass proteins for lactating beef cows fed dormant native grass	OSU Experiment Station	$ 36,000
Mineral metabolism in dairy cows	OSU Experiment Station	$ 8,000
Feed intake control by ruminants: digestive tract and nutrient limitations	OSU Experiment Station	$ 78,655
Rangeland/Old World Bluestem Utilization/cattle/SW OK	OSU Experiment Station	$ 8,500
Development of profitable beef forage systems	OSU Experiment Station	$ 2,000
Forage protein characterization & utilization for beef cattle	OSU Experiment Station	$ 23,000
Evaluation/Beef cattle germ plasm resources involving additive and non-additive genetic effect	OSU Experiment Station	$ 24,500
Rangeland grazing and brush management: livestock response	OSU Experiment Station	$ 57,000
Old World Bluestem vs. native tallgrass range for spring calving beef cows	OSU Experiment Station	$ 44,000
Early weaning systems to improve profitability of beef	OSU Experiment Station	$ 31,000
Increasing profitability of wheat/stocker cattle enterprise	OSU Experiment Station	$ 15,000
Nutrition Research Group Total		**$ 4,006,092**
Food Science Research		
Enhancing global competitiveness of US red meats	OSU Experiment Station	$ 2,500
Value-based marketing: Impact of beef carcass quality and cutability	OSU Experiment Station	$ 35,500

Title	Sponsor	Award Amount
Evaluations of the Canadian Computer Vision System and the HunterLab Meat Color Imaging System for augmenting application of USDA yield and quality grades for sorting carcasses	Natl. Cattlemen's Beef Assn.	$ 33,520
Retail ground beef quality/consistency study Phase 2	Cryovac North America	$ 6,000
Elevation of intramuscular calcium levels by feeding supplemental vitamin D3 - Vitamin residue tissue sampling	Natl. Cattlemen's Beef Assn.	$ 50,000
Supplementation of Vitamins D & E for feedlot animals destined for case-ready beef programs	Roche Vitamins and Fine Chemicals	$ 20,000
Characterization of boxed beef value in Angus field data	American Angus Assn.	$ 20,000
1997 National Beef Tenderness Survey	Texas A&M University	$ 6,000
Molecular genetics strategies for identification of genes involved with marbling in beef cattle	OK Beef Industry Council	$ 48,000
Utilizing pre-harvest and post-harvest technologies for improving beef tenderness	OK Beef Industry Council	$ 21,000
Palatability improvement strategies for tough chuck and round muscles	OK Beef Industry Council	$ 63,000
Measuring the effectiveness and utilization of various insulated coolers for prevention of bacteria growth on/in ground beef subjected to temperature abuse by consumers	OK Beef Industry Council	$ 37,500
OK R & D Ranch: Utilizing information from the chuck and round muscles profile study for OK beef processors and retailers	OK Beef Industry Council	$ 11,400
OK Beef Quality Summit - student assistantships	OK Beef Industry Council	$ 13,950
Colorado State University Consulting Agreement	Colorado St. Univ.	$ 27,000
Production of a new sectioned and formed beef steak and roast	OK Beef Industry Council	$ 6,264
Carcass and palatability studies for feedlot cattle administered Trebelone Acetate	OK Beef Industry Council	$ 16,301
Distinguished graduate student research assistantship	OK Beef Industry Council	$ 31,652
Graduate student assistantships	OK Beef Industry Council	$ 5,026
Processing properties of various beef trimmings	OK Beef Industry Council	$ 18,973
Precooked Beef patties: Microbial safety and product quality	OK Beef Industry Council	$ 31,968
Phosphate: eliminate the toughness caused by prerigor shortening	OK Beef Industry Council	$ 7,330
To enhance the tenderness of beef through a high alcohol feeding regime prior to slaughter	OK Beef Industry Council	$ 2,162
Effect of maturity on marbling deposition, tenderness, and carcass composition of steers	OK Beef Industry Council	$ 59,000
Meat laboratory equipment II	OK Beef Industry Council	$ 257,000
Beef snack stick shelf stability	OK Beef Industry Council	$ 34,500
Alternative merchandising methods for muscles from three-piece boneless chucks	OK Beef Industry Council	$ 42,613
Reducing warmed-over flavor in precooked beef roasts	OK Beef Industry Council	$ 24,250
Beef tenderness and alcohol: how long does it take? Phase II	OK Beef Industry Council	$ 38,964
OK Beef Market Basket Survey: Does US select play a role?	OK Beef Industry Council	$ 32,000
Structure and functional changes in muscle proteins due to rate of heating and the ultimate effect on palatability of beef	OK Beef Industry Council	$ 33,500
Alterations of fat and cholesterol: designing beef to meet quality guidelines	OK Beef Industry Council	$ 70,000
Development of genetic markers for beef carcass merit	OK Beef Industry Council	$ 270,000
Distinguished graduate student assistantship	OK Beef Industry Council	$ 10,000
Effect of a dose titration of *B*- Hydroxy-*B*-Methyl Butyrate on carcass quality of feedlot steers	Metabolite Technology Inc.	$ 4,500
Inactivation of E. coli in low fat, precooked ground beef patties	OK Beef Industry Council	$ 18,500
Impact of growth promotant implants on carcass characteristics in beef cattle	Rhone-Poulenc Animal Nutrition	$ 3,500
Graduate student assistantships	OK Beef Industry Council	$ 60,000
Fajita Papain study	Robert Terrell Associates	$ 2,000
Quality Assessment of Beef, Pork, and Poultry exposed to ammonia	Refrigeration Research Found.	$ 15,000

Title	Sponsor	Award Amount
USDA Yield Grades (YG), Total Body Electrical Conductivity (ToBEC) and Video Image Analysis (VIA) technologies for predicting cutability, and Tender-Tec(TT) for predicting tenderness of sides and shortloins, respectively of steer/heifer carcasses	OK Beef Industry Council	$ 38,750
Effects of Vitamin E supplementation on carcass characteristics of beef steers	OK Beef Industry Council	$ 7,000
Utilizing Vitamin E to extend the shelf life of ground beef of varying fat levels	Hoffman-LaRoche, Inc.	$ 20,000
Elevation of live animal Calcium levels: A unique approach for improving beef tenderness (Phase I & II)	OK Beef Industry Council	$ 39,000
Domestic and international shelf life strategic alliance	OK Beef Industry Council	$ 10,592
Characterization of Certified Angus Beef TM steaks from the round, loin, and chuck	Certified Angus Beef	$ 45,774
Freezing and Calcium Chloride injection: Their role in improving beef tenderness	OK Beef Industry Council	$ 31,000
Carcass quality: Impact of metabolic conditions at slaughter	OK Beef Industry Council	$ 21,992
Effect of Magnesium Mica on the live and carcass traits of feedlot cattle	Micro-Lite, Inc.	$ 20,000
Effect of Vitamin E on the color and case-life of ground beef and beef top loin steaks under various conditions	Roche Vitamins & Fine Chemicals	$ 21,000
Elevation of live animal Calcium levels: A unique approach for improving beef tenderness	Roche Vitamins & Fine Chemicals	$ 40,000
Sire group comparisons of shorthorn steers for differences in feedlot performance, carcass characteristics and steak palatability	American Shorthorn Association	$ 36,500
Effect of maturity on marbling deposition, tenderness and carcass composition of steers	OK Beef Industry Council	$ 313
Meat Laboratory Equipment II	OK Beef Industry Council	$ 65,295
Beef snack Stick shelf stability	OK Beef Industry Council	$ 1,986
Alternative merchandising methods for muscles from three-piece boneless chucks	OK Beef Industry Council	$ 14,974
Reducing warmed-over flavor in precooked beef roasts	OK Beef Industry Council	$ 429
Beef tenderness and alcohol: how long does it take?	OK Beef Industry Council	$ 11,036
OK Beef Market Basket Survey: Does US Select play a role?	OK Beef Industry Council	$ 1,285
Biocontrol of foodbourne microorganisms	OK Center for Applied Research	$ 10,000
Interactions in the regulation of muscle contraction	OK Center for Applied Research	$ 14,856
Structure and functional changes in the muscle proteins due to rate of healing and the ultimate effect on palatability of beef	OK Beef Industry Council	$ -
Utilization of HAACP in small meat processing plants	OK Center for Applied Research	$ 37,100
Biocontrol of foodbourne microorganisms	OK Center for Applied Research	$ 10,500
Biocontrol of Foodbourne microorganisms	OK Center for Applied Research	$ 11,000
Reduced moisture (Intermediate) meat products	USDA/ARS	$ 39,250
National Beef Quality Audit	Natl. Cattlemen's Beef Assn.	$ 32,100
Domestic and International shelf-life strategic alliance	Natl. Cattlemen's Beef Assn.	$ 102,161
Pathways in Calcium regulation of muscle contraction	PHS/NIH	$ 92,126
Pathways in Calcium regulation of muscle contraction	PHS/NIH	$ 49,572
Pathways in Calcium regulation of muscle contraction	PHS/NIH	$ 45,811
Reducing waste from Abattoirs: Ruminal contents	OSU Experiment Station	$ 37,850
Study of E. coli in animals processed in OK	OSU Experiment Station	$ 39,500
Ecology and survival of E.coli in cattle feedlots and manure prior to processing	OSU Experiment Station	$ 16,750
Microbial sampling of retail ground beef, pork and poultry to test for HAACP Compliance	OSU Experiment Station	$ 33,000
Detection, characterization, and inhibition of foodborne pathogenic and spoilage microorganisms	OSU Experiment Station	$ 46,200

Title	Sponsor	Award Amount
Improving the consistency of processed meats by enhancing the functionality of myofibrillar muscle protein	OSU Experiment Station	$ 28,180
The role of myofibrillar protein structure in enhancing the functional properties of value-added meat products	OSU Experiment Station	$ 30,069
Impact of growth stimulants on maintenance and muscle characteristics of steers	OSU Experiment Station	$ 32,000
Effect of carcass and postmortem muscle traits on beef palatability	OSU Experiment Station	$ 20,000
Molecular interactions in postmortem muscle shortening	OSU Experiment Station	$ 32,000
The characterization and manipulation of water in processed meat products	OSU Experiment Station	$ 31,500
Changes in the palatability of beef muscles during thermal processing	OSU Experiment Station	$ 13,000
Effects of animal health on beef tenderness	OSU Experiment Station	$ 32,000
Antemortum and postmortem methods for improving beef tenderness	OSU Experiment Station	$ 30,000
Food Science Research Group Total		**$ 2,783,824**
Awards and Assistantships		
Stipend award - Darrel Hickman	Roche Vitamins, Inc.	$ 3,000
Academic Expenses Award - Ioannis Bossis	Gerondelis Foundation, Inc.	$ 5,000
Regent's matching award	OK St Regents for Higher Education	$ 42,176
Regent's matching award	OK St Regents for Higher Education	$ 35,337
Regent's matching award	OK St Regents for Higher Education	$ 104,737
Regent's matching award	OK St Regents for Higher Education	$ 44,940
Graduate Assistantship	Langston University	$ 40,144
Graduate Assistantship	Langston University	$ 38,829
OK Institutional Development Award	OU Health Sciences Center	$ 20,295
Graduate Assistantship - Tilahun Sahlu	Langston University	$ 41,397
Awards and Assistantships Group Total		**$ 375,855**
Cattle and Beef Research Groups Total		**$ 9,030,508**

Poultry Research

Nutrition		
Feed efficiency in meat type chickens	Cobb- Vantress, Inc.	$ 25,000
Aflatoxin, Ochratoxin and Flobond combination effects on broiler perf., and post-mortem examination	Brookside Agra, L.C.	$ 5,000
Poultry Research Program	Special Nutrients, Inc.	$ 6,500
Evaluate Enzyme NB-5	Nutra Blend Corporation	$ 3,500
Diamond V Mills - Consolidated	Diamond V Mills	$ 15,000
Zinpro- Poultry Research Support	Zinpro Corporation	$ 5,000
Yeast- Cell Research - Poultry	Phillips Petroleum Co.	$ 5,500
Vitamin and Mineral Nutrition - Poultry	I.D. Russell Co. Labs	$ 5,000
An evaluation of supplemental vitamin and trace mineral effects on poultry growth rate	Hoffman- LaRoche, Inc.	$ 47,000
Organic acids and broilers	NutriBasics	$ 20,750
Chelated Research	Chelated Minerals Corp.	$ 5,500

Title	Sponsor	Award Amount
Poultry Mineral Research	Chelated Minerals Corp.	$ 13,000
Poultry Research/ Yeast Cultures	Diamond V Mills	$ 10,000
Energetics Research with Carnitine and Niacin	Lonza, Inc.	$ 91,833
Hoffman- La Roche Equipment Purchase /Poultry IPC machine	Hoffman-LaRoche, Inc.	$ 55,000
Optimizing Performance in Broiler Chickens	Hoffman-LaRoche, Inc.	$ 67,900
Potassium Research/ Poultry	IMC- Agrico Company	$ 11,500
Turkey Research on Monensin	Elanco An. Health/Eli Lilly & Co.	$ 28,500
An evaluation of dietary caloric density, starter protein level, and feeding curve profile on subsequent performance of Cobb broiler breeder hens and a modicum of metabolic variables	Cobb- Vantress, Inc.	$ 125,000
Poultry Mineral Trials	IMC-Agrico Company	$ 2,500
Academic Expenses Award Hussein A. Mahmoud/Poultry	Egyptian Cultural & Education Bureau	$ 6,000
Research with Carnitine and Nicotinic Acid/poultry component	Lonza, Inc.	$ 167,500
Poultry Nutrition Research	IMC-Agrico Company	$ 10,000
"Net Requirement Systems" for Poultry	OSU Experiment Station	$ 96,200
Nutrition Research Group Total		**$ 828,683**
Reproduction and Breeding Genetics Research		
Broiler/Breeder Research	Cobb-Vantress, Inc.	$ 267,000
Hybrid Turkey Research	Hybrid Turkeys, Inc.	$ 25,000
Reproduction and Breeding Genetics Research Group Total		**$ 292,000**
Waste Studies		
Vitamin X Environmental Science Research	BASF Corp.	$ 110,000
Poultry Atmospheric Ammonia Research	Zeolitics, Inc.	$ 6,250
Reduce N & P Excretion in Swine and Poultry- Yr. 1 Cooperative Swine & Poultry Project - 50% Funding	OCAST	$ 16,001
Reduce N & P Excretion in Swine and Poultry- Yr. 2 Cooperative Swine & Poultry Project - 50% Funding	OCAST	$ 10,786
Reduce N & P Excretion in Swine and Poultry- Year 2 Cooperative Swine & Poultry Project- 50% Funding	OCAST	$ 17,616
Waste Studies Group Total		**$ 160,653**
Health Research		
Virginiamycin effect on broiler performance, when fed diets with different nutritive values	Pfizer, Inc. (Animal Health Grp)	$ 83,000
A Reevaluation of the Optimal Pantothenic Acid fortification level to be fed to commercial broilers during 1. Heat stress and varying cocci exposure, and 2. During conditions predisposing chicks to ascites.	Daiichi Pharmaceutical Co, Ltd.	$ 65,000
Manipulation of Diet Composition to Reduce Ascites and development of diets for optimal energetic efficiency.	Cobb- Vantress, Inc.	$ 90,000
Anti- biotic Environment Interactions - Broilers	SmithKline Beecham An. Health	$ 10,000
Avian Nutrition and Physiology	Church & Dwight Co., Inc.	$ 67,000
An Evaluation of Supplemental Vitamin and trace mineral effects in broilers reared under high ambient temperature stress.	Dawe's Inc., Labs	$ 2,000
Methionine and Heat Stress/Poultry	Degussa Corporation	$ 31,300
Poultry Amino Acid - Heat Stress	Nutri-Quest, Inc.	$ 12,750
SmithKline Beecham- Poultry Research	SmithKline Beecham An. Health	$ 17,000
A Broad Spectrum Screening of Dietary Influences on broiler sciatic nerve abnormalities, leg weakness problems and mortality at a fixed dietary lasalocid level.	Roche Vitamins & Fine Chem.	$ 82,750

Title	Sponsor	Award Amount
Alimet and Heat Stress	Novus International, Inc.	$ 16,500
Semduramicin Poultry Trial - Semduramicin	Pfizer, Inc.	
Electrolyte Interactions	(North Am. An. Health)	$ 24,375
Enhancing growth performance of broilers with electrocytes	Roche An. Nutrition & Health	$ 15,000
Microbial Amelioration of "Spiking Mortality Syndrome" in broilers	AgTech Products, Inc.	$ 15,000
Avetec and Coban Effects/Poultry	Roche Vitamins & Fine Chem.	$ 81,000
Avian Nutrition	Church & Dwight Co., Inc.	$ 15,000
Effects and interactions of Stafac (Virginiamicin) ans/or Aviax (Semduramicin) on broiler production (research with Virginiamicin)	Pfizer, Inc. (Animal Health Grp)	$ 104,925
Heat Stress - Poultry	Cobb-Vantress, Inc.	$ 10,000
Evaluation of aircraft noise on poultry	Hubbs- Sea World, Inc.	$ 32,699
Graduate Assistantships- Examining the Effects of hemicell poultry research	Chemgen Corporation	$ 25,036
Finn Sugar Fundamental Poultry Nutrition heat stress research	OSU Experiment Station	$ 30,000
Health Research Group Total		**$ 830,335**
Poultry Research Groups Total		**$ 2,111,671**

Swine Research

Nutrition and Conversion Performance

Optimization of soybean meal for swine	Univ. of Illinois- Subcontract	$ 43,305
Nutri-Binder as a Replacement for whey in early weaned diet pigs	Venture Min. & Resources, Inc.	$ 2,500
Determine the effect of plasma protein source on performance of early weaned pigs.	Merrick Foods, Inc.	$ 2,500
Swine research	Zinpro Corporation	$ 4,800
Flavor in early weaning pig diets	Feed Flavors, Inc.	$ 3,000
Consolidated- Swine Dietary Studies	Roche Vit. & Fine Chemicals	$ 19,600
Safety assessment of Carnitine in swine diets	Lonza, Inc.	$ 22,000
Evaluation of Palatability Agents: Lysoforte	Kemin Industries, Inc.	$ 16,300
Feeding trials with early weaned pigs	OSU Foundation/ Tyson Foods Donation	$ 47,500
Efficacy of PR-MIX in improving gain and efficiency in early weaned pigs	Agrimerica, Inc.	$ 12,000
Early Weaned Pigs	Roche Vit. & Fine Chemicals	$ 8,000
Utilization of wheat, sorghum grain and mung-beans for growing-finishing swine.	OSU Experiment Station	$ 2,000
Improving utilization of wheat as an energy source for swine.	OSU Experiment Station	$ 5,600
Effect of protein source on performance and function of the small intestine in early weaned pigs.	OSU Experiment Station	$ 7,500
Efficacy of wheat based diets for early weaned pigs.	OSU Experiment Station	$ 2,700
Nutrition Research Group Total		**$ 199,305**

Waste Studies

Reduction of odorous compounds in pig manure through specific dietary fiber manipulation.	Purdue University- Subcontract	$ 13,500
Reducing N & P excretion in swine and poultry	Tyson Foods, Inc.	$ 10,000
Reduce N & P Excretion in Swine and Poultry- Year 1 Cooperative swine and poultry project - 50% of fund.	OCAST	$ 16,001
Reduce N & P Excretion in Swine and Poultry- Year 1 Cooperative swine and poultry project - 50% of fund.	OCAST	$ 19,786
Reduce N & P Excretion in Swine and Poultry- Year 1 Cooperative swine and poultry project - 50% of fund.	OCAST	$ 17,616
Development of dietary regimens that result in minimum N, P, and organic matter excretion.	OSU Experiment Station	$ 19,920

Title	Sponsor	Award Amount
Dietary manipulation to reduce nutrient and volatile organic compound excretion from swine.	OSU Experiment Station	$ 11,000
Amino acid manipulation of swine diets to reduce N excretion, Ammonia, and odor.	OSU Experiment Station	$ 51,500
Waste Studies Group Total		**$ 159,323**
Reproduction and Breeding Genetics Research		
Role of Conceptus Interferon-like proteins on the uterus - Year 1.	OCAST	$ 29,172
Role of Conceptus Interferon-like proteins on the uterus - Year 2.	OCAST	$ 28,857
Role of Conceptus Interferon-like proteins on the uterus - Year 3.	OCAST	$ 27,802
Effects of advanced uterine environment on blastocyst development.	USDA/CSREES	$ 100,000
Conceptus regulation of the Endometrial 2', 5' Oligoadenylate system in pregnancy.	USDA/CSREES	$ 3,800
Role of 30 kDa Endometrial Glycoprotein in Porcine reproductive efficiency	USDA/CSREES	$ 117,922
Involvement of a unique Inter-a- Trypsin inhibitor in establishment of pregnancy.	USDA/CSREES	$ 183,000
Nutritional systems for swine to increase reproductive efficiency.	OSU Experiment Station	$ 1,500
Nutritional systems for swine to increase reproductive efficiency.	OSU Experiment Station	$ 84,000
Involvement of a unique Inter-a- Trypsin inhibitor in establishment of pregnancy.	OSU Experiment Station	$ 2,000
Integration of quantitative and molecular technologies for genetic improvement of pigs.	OSU Experiment Station	$ 12,000
Genetic improvement of efficiency in the production of quality pork.	OSU Experiment Station	$ 14,750
Modeling responses of growing pigs	OSU Experiment Station	$ 47,500
Genetic regulation of pork production	OSU Experiment Station	$ 3,600
Integration of quantitative and molecular technologies for genetic improvement of pigs.	OSU Experiment Station	$ 8,000
Positional and functional identification of economically important genes in the pig.	OSU Experiment Station	$ 8,000
TRIP Award - Cloning & characterization of a novel 30 kDa Porcine Glycoprotein.	OSU Experiment Station	$ 31,500
National Animal Genome Research Program	OSU Experiment Station	$ 4,000
Gene expression in the peri- implantation porcine conceptus and endometrium.	OSU Experiment Station	$ 43,300
Reproduction and Breeding Genetics Research Group Total		**$ 750,703**
Health Studies		
Carnitine and Nicotinic Acid/Swine	Lonza, Inc.	$ 23,000
Effect of Anti-biotics/Perf.Growing & Fin.	Hoechst-Roussell Agri-Vet Co.	$ 4,800
Effect of Turbozyme on performance of swine	JEFO Import Export	$ 29,300
Testing of various yeast cell wall preparations for their efficacy as a non-specific immune stimulant based on their 1-6 Beta glucan content.	Fleischmann's Yeast	$ 16,000
Lactobacilli as direct-fed microbials applications for post-weaned pigs.	AgTech Products, Inc.	$ 10,000
Effects of endotoxin and trace minerals on immune function and lean body mass in weaning pigs - Cooperative project with Human Environmental Resources, principal investigator - A. Arquitt.	OSU Experiment Station	$ 36,600
Health Research Group Total		**$ 119,700**
Swine Research Groups Total		**$ 1,229,031**

OSU Department of Agricultural Economics

Poultry Research

Title	Sponsor	Award Amount
Waste Studies		
Economic analysis of management strategies to use livestock and poultry waste in OK	OSU Experiment Station	$ 3,000
Waste Studies Total		**$ 3,000**
Socio-Economic Research		
Economic diversification and community development options/models for rural OK	OSU Experiment Station	$ 1,500
Economic development strategies for OK communities	OSU Experiment Station	$ 11,650
Socio-Economic Research Group Total		**$ 13,150**
Poultry Research Groups Total		**$ 16,150**

Swine Research

Production/Marketing Research		
What Should be Believed About Generic Meat Advertising	OSU Experiment Station	$ 12,500
Analysis of Swine Production-Marketing Systems, Strategies, and Methods	OSU Experiment Station	$ 16,500
Increasing Risk-Adjusted returns to Grain and Livestock Marketing	OSU Experiment Station	$ 23,200
Improving Efficiency of Agricultural Markets and Institutions	OSU Experiment Station	$ 9,000
Economics of Oklahoma's Swine Industry, Selecting Swine Production-Marketing Systems and Strategies	OSU Experiment Station	$ 17,250
Interregional Competition in the U.S. Swine-Pork Industry	National Pork Producers Council	$ 18,000
Production/Marketing Research Group Total		**$ 96,450**
Socio-Economic Research		
Economics of environmentally controlled swine production systems	OSU Experiment Station	$ 6,000
Economic diversification and community development options/models for rural OK	OSU Experiment Station	$ 1,500
Economic Development Strategies for Oklahoma Communities	OSU Experiment Station	$ 11,650
Planning Community Services to Assist with Revitalizing Rural Oklahoma	OSU Experiment Station	$ 13,340
Assisting Rural Oklahoma Infrastructure Decision makers in Adjusting to Changing Federal Programs	OSU Experiment Station	$ 14,350
Economic Impact of Industrial Employment on the Communities of Texas County and on Texas County, Oklahoma	City of Guymon	$ 21,250
Socio-Economic Research Group Total		**$ 68,090**
Waste Management Research		
Waste Management/Consortium-Thinking Outside the Box: Prop Solicit Papers Cutting Edge Scientists	OSU Experiment Station	$ 11,000
Waste Management/Consortium-Design and Economic Analysis of Swine production and Waste Management	OSU Experiment Station	$ 40,000
Economic Analysis of Management Strategies to use livestock and poultry waste in Oklahoma	OSU Experiment Station	$ 3,000
Waste Management Research Group Total		**$ 54,000**
Swine Research Groups Total		**$ 218,540**

OSU Department of Biosystems and Agricultural Engineering

Poultry Research

Title	Sponsor	Award Amount
Waste Studies		
Modeling Phosphorus loading for the Lake Eucha basin	City of Tulsa	$ 112,687
"	City of Tulsa	$ 11,687
Assessment of in-stream nutrient dynamics within Lake Eucha basin	City of Tulsa	$ 121,333
Basin-wide pollution inventory for the Illinois River comprehensive basin management program	US EPA	$ 81,075
"	OK Conservation Commission	$ 43,357
Support of establishment of nutrient and sediment loading to Lake Wister	OK Conservation Commission	$ 10,000
Determining the nutrient status of upper Illinois River Basin using a lotic ecosystem trophic index	US EPA	$ 19,354
Estimating nonpoint source pollution loading for the Grand Lake basin management plan	OK Conservation Commission	$ 12,963
Demonstrating BMPs to protect surface water quality from land application of animal wastes	US EPA	$ 175,398
Estimating NPS Phosphorus and sediment loading to the Upper Deep Fork Watershed	OK Conservation Commission	$ 10,000
Environmentally sound grazing systems for utilization of nutrients from poultry litter	OK Conservation Commission	$ 61,925
Estimating watershed level nonpoint source loading for the state of OK	US EPA	$ 58,617
Examination of potential risks to water quality from animal waste applied to soils	USDA Soil Conservation Service	$ 95,000
Illinois River basin - treatment prioritization	US EPA	$ 51,300
"	OK Conservation Commission	$ 30,780
Evaluating poultry litter management to reduce surface water contamination	USDA Soil Conservation Service	$ 74,677
Biological validation of watershed-scale models for nonpoint source nutrient loading	US Geological Survey/OK Water Resources Research Institute	$ 45,872
Poultry waste management education	OK Broiler Council	$ 150,000
Poteau River comprehensive watershed management program	US EPA	$ 408,334
"	US EPA	$ 240,000
Animal waste management in semiarid agroecosystems	USDA	$ 19,307
Environmentally sound grazing systems for utilization of nutrients from poultry litter	US EPA	$ 309,654
"	US EPA	$ 97,000
Poteau River and animal waste management	OK Conservation Commission	$ 11,000
Review of animal waste control options for OK	University of OK	$ 10,000
Waste Studies Group Total		**$ 2,261,320**
Poultry Research Group Total		**$ 2,261,320**

Swine Research

Title	Sponsor	Award Amount
Waste Studies		
Groundwater and atmospheric pollution potential from model facultative swine lagoons	Water Research Center	$ 47,600
Monitoring detention ponds below confined animal facilities	DASNR	$ 18,130
A continuous process improvement model for swine odor management	OK Pork Council	$ 80,000
Animal waste management in semiarid agroecosystems	USDA	$ 217,129
Swine waste management education	OK Conservation Commission	$ 26,000
Waste Studies Group Total		**$ 388,859**
Swine Research Group Total		**$ 388,859**

Wheat Research

Wheat Research		
Development of equipment to improve returns and enhance sustainability of wheat	State/Hatch	$ 5,400
OK Wheat Research Foundation	OK Wheat Research Foundation	$ 17,000
Grain drill evaluation under various tillage systems for wheat production	John Deere & Co.	$ 3,000
Cheat control in wheat	OK Wheat Commission	$ 10,000
Locating and diagnosing causes of wheat yield losses using combine yield monitor and remote sensed data	OK Wheat Commission	$ 12,500
Locating and diagnosing causes of wheat field losses	OK Wheat Commission	$ 12,000
Agronomic and economic comparisons of using ultranarrow row seeding to improve Bromus spp. control in wheat	SRPIAP	$ 13,900
Measuring costs and benefits of cleaning hard red winter and soft red winter wheat	USDA/ERS	$ 75,000
Pesticide residual on wheat use for breakfast cereal stored grain IMP to minimize	IMP Education	$ 45,000
Development of stored wheat - area wide management program in KS and OK	USDA	$ 4,250
Electrical energy reduction for wheat elevators	OK Department of Commerce	$ 96,000
Wheat Research Group Total		**$ 294,050**

Cotton Research

Cotton Research		
Cotton production systems and residue management on highly erodible soils	Cotton, Inc.	$ 11,204
Combustion of cotton gin trash to provide partial drying energy requirements at an OK cotton ginning facility	US Department of Energy	$ 63,000
Cotton Research Group Total		**$ 74,204**

Peanut Research

Peanut Research		
Effect of window shading during field curing on peanut quality	USDA/ARS	$ 10,000
Peanut kernel damage detection using machine vision	USDA/ARS	$ 8,000

Title	Sponsor	Amount Awarded
Peanut butter slices: A ready-to-eat peanut product	OK Peanut Commission	$ 5,000
Recirculation batch peanut drying/curing systems	Texas Peanut Producers	$ 5,500
Peanut curing	OK Peanut Commission	$ 5,000
Peanut curing - recirculation batch drying/curing systems	OK Peanut Commission	$ 4,500
Peanut Research Group Total		**$ 38,000**

OSU Department of Plant and Soil Sciences

Poultry Research

Title	Sponsor	Award Amount
Waste Studies		
Remediation of soils contaminated with petroleum hydrocarbons and salinity using poultry waste products	OSU Environmental Institute Water Center	$ 23,955
Utilization of Animal Waste on Rangeland	USDA	$ 20,000
Waste Studies Group Total		**$ 43,955**
Poultry Research Group Total		**$ 43,955**

Swine Research

Waste Studies		
Impact of Animal Manure	OSU-Environmental Institute Water Center	$ 25,000
Assessing Ammonia Emissions	USDA-Multistate Consortium	$ 40,000
Assess impact of Manure	USDA-Multistate Consortium	$ 55,700
Near Infrared Technology to Determine Manure Nutrients	USDA-Multistate Consortium	$ 55,800
Environmentally Sound Management of Animal Waste	USDA	$ 15,250
Land Application of Animal Manure for Swine Cooperative Project with Animal Science	National Pork Producers Council	$ 25,000
Animal Waste Management in Semiarid Agroecosystems Cooperative Project with Animal Science, Agricultural Economics, and Biosystems Engineering	USDA-CREES	$ 225,189
Development of Chemical methods to Assess the Availability of Arsenic	University of Missouri - Environment Protection Agency Subcontract	$ 147,345
Waste Studies Group Total		**$ 589,284**
Nutrition		
Optimization of Soybean Meal for Swine Cooperative Project with Animal Science	University of Illinois-Subcontract	$ 30,967
Nutrition Studies Group Total		**$ 30,967**
Swine Research Groups Total		**$ 620,251**

Wheat Research

Wheat Research		
S279 Sus/Imp Prof of Wheat	USDA-Hatch	$ 50,000
Wheat Breeding	State	$ 119,325
Integrating weed control program	Hatch	$ 85,375
Genetic analysis and improvement of physiological wheat traits $ 98,225	Hatch	$ 63,557
Wheat genetic diversity	USDA	$ 4,000
Nitrogen utilization, efficiency of wheat varieties	N/A	$ 45,250
Genetic improvement and vatietal release of Hard Red and Winter White wheat	OK Wheat Research Foundation	$ 100,000
Aphid resistance 99	OK Wheat Research Foundation	$ 5,125

Title	Sponsor	Award Amount
Physiology 99	OK Wheat Research Foundation	$ 11,625
Transformation 99	OK Wheat Research Foundation	$ 32,125
Information Exch 99	OK Wheat Research Foundation	$ 4,125
Weed control wheat 99	OK Wheat Research Foundation	$ 20,000
Wheat yield loss due to lack of rotation	OK Wheat Research Foundation	$ 17,000
Isolation and exploitation of wheat rust spore germination inhibitors 00	OK Wheat Research Foundation	$ 5,000
Wheat Improv. Prog. 00	OK Wheat Research Foundation	$ 126,500
Wheat herbicide research	Rohm & Haas Company	$ 15,000
Jointed goatgrass competition and integrated management in W US Winter Wheat	Subcontract - Washington St. U	$ 20,000
Limiting wheat field invasion by jointed goatgrass	Subcontract - Washington St. U	$ 15,000
Herbicides on wheat	DuPont Agricultural Products	$ 2,500
OK Wheat Research Foundation	OK Wheat Research Foundation	$ 5,500
Weed control in agronomy crops cons. acct. $ 293,419	Various Companies*	$ 185,317
Competitive cultivars	Subcontract - Washington St. U	$ 14,300
Cropping systems	Subcontract - Washington St. U	$ 17,700
Integrated jointed goatgrass management systems for the S Great Plains	Subcontract - Washington St. U	$ 8,000
Bayer wheat research	Bayer Agriculture Division	$ 32,000
Cyanamid weed research in small grains in OK	Cyanamid Agriculture Products Research Division	$ 21,500
Novartis Crop Protection Inc.	Novartis Crop Protection Inc.	$ 7,500
Wheat research consolidated acct.	Various Companies*	$ 12,726
Exploration of traits associated with competitive ability against jointed goatgrass	Subcontract - Washington St. U	$ 14,500
Exploration of traits associated with competitive ability against jointed goatgrass	Subcontract - Washington St. U	$ 14,500
Cropping system 00	Subcontract - Washington St. U	$ 7,000
Wheat breeding genetics	OK Wheat Research Foundation	$ 21,000
Wheat weed control	OK Wheat Research Foundation	$ 6,500
Breeding for improved wheat varieties for OK	OK Wheat Research Foundation	$ 200,000
Wheat yield loss due to lack of rotation	OK Wheat Research Foundation	$ 23,082
OWRF May 93	OK Wheat Research Foundation	$ 13,000
OK Wheat Research Foundation May 93	OK Wheat Research Foundation	$ 3,000
FMC - Weed control research	FMC - Corporation Chemical Research and Development Center	$ 33,000
Monsanto Weed Control Research	Monsanto	$ 120,000
Weed control in wheat 95	OK Wheat Commission	$ 10,000
Trace element pollutant uptake by wheat produced in OK soil	DEQ	$ 32,000
Weed control in wheat 96	OK Wheat Commission	$ 5,000
Rye in wheat	OK Wheat Commission	$ 10,000
Rye in wheat OWC 99	OK Wheat Commission	$ 12,500
Rye in wheat 00	OK Wheat Commission	$ 20,000
White wheat	OK Wheat Commission	$ 15,000
Economically sustainable cropping systems for OK: A cooperative project	OK Wheat Commission	$ 40,000
Biological control of field bindweed 00	OK Wheat Commission	$ 7,578
Combine for wheat management trials	OK Wheat Commission	$ 5,000
Mechanisms of Russian Wheat Aphid Resistance and their implications on Aphid population dynamics	USDA	$ 11,965

Title	Sponsor	Award Amount
Increasing profitability of the wheat/stocker cattle enterprise	USDA	$ 68,730
Research apprenticeship - wheat cell biology	USDA CSRS	$ 20,000
Water-use efficiency of wheat	USDA-CG	$ 10,000
Ultranarrow row seeding	SRPIAP GA U	$ 10,000
Increasing profitability of the wheat/stocker cattle enterprise	USDA - SG	$ 35,585
Mechanisms of Russian Wheat Aphid Resistance and their implications on Aphid population dynamics	USDA ARS	$ 77,891
Increasing profitability of the wheat/stocker cattle enterprise	USDA - SG	$ 232,246
Increasing profitability of the wheat/stocker cattle enterprise	USDA CSREES	$ 77,022
Wheat Research Group Total		**$ 2,202,149**

Cotton Research

Cotton Research		
Evaluation of cotton varieties $ 46,560	State	$ 27,513
S-77 Cotton breeding and genetics $ 26,078	N/A	$ 9,314
Cotton production systems on...	Hatch	$ 65,116
Cultural solutions to cotton	Hatch	$ 28,350
Field validation and adaptation of HERB for peanuts and cotton in OK	Subcontract - N. Carolina St. U	$ 4,653
Long-term weed management experiment comparing Roundup-ready programs	Cotton Incorporated	$ 7,000
DuPont cotton research	E.I. DuPont De Nemours & Co.	$ 6,000
Effect of weed management intensities and N placement	Cotton Incorporated	$ 6,960
Long term weed management experiment comparing Roundup-ready programs	Cotton Incorporated	$ 8,000
Cotton research consolidated account	Various agencies	$ 48,313
Long term weed management experiment comparing Roundup-ready programs	Cotton Incorporated	$ 7,000
Effect of weed management intensities and N placement and sources on continuous cotton production 95	Cotton Incorporated	$ 10,500
Effect of weed management intensities and N placement and sources on continuous cotton production 96	Cotton Incorporated	$ 15,000
Effect of weed management intensities and N placement and sources on continuous cotton production 97	Cotton Incorporated	$ 9,720
Cotton Research Group Total		**$ 253,439**

Peanut Research

Peanut Research		
Peanut breeding and management	Hatch-USDA	$ 58,800
Field validation and adaptation of HERB for peanuts and cotton in OK	Subcontract - N. Carolina St. U	$ 4,654
Weed control research 96	OK Peanut Commission	$ 4,000
Peanut breeding 99	OK Peanut Commission	$ 15,000
Weed control research 00	OK Peanut Commission	$ 2,500
Peanut breeding	OK Peanut Commission	$ 19,350

Title	Sponsor	Award Amount
Weed control in peanuts	OK Peanut Commission	$ 3,600
Development of higholeic peanuts	OK Peanut Commission	$ 25,000
Peanut breeding	OK Peanut Commission	$ 15,000
Weed control research in peanuts	OK Peanut Commission	$ 3,000
Peanut breeding 99	OK Peanut Commission	$ 15,000
Weed control research in peanuts	OK Peanut Commission	$ 3,000
Peanut Research Group Total		**$ 168,904**

Soybean Research

Soybean Research		
Soybean Improvement	State	$ 64,700
Soy Diesel Demonstration 99	OK Soybean Board	$ 31,500
Soybean breeding and genetics 99	OK Soybean Board	$ 9,000
Soybean variety tests 99	OK Soybean Board	$ 10,000
Soybean management 99	OK Soybean Board	$ 15,000
Soybean management studies - W OK 99	OK Soybean Board	$ 31,500
Soy Diesel Demonstration 98	OK Soybean Board	$ 5,000
Soybean breeding and genetics 98	OK Soybean Board	$ 9,000
Soybean variety tests 98	OK Soybean Board	$ 10,000
Soybean management 98	OK Soybean Board	$ 15,000
Soybean management studies - W OK 98	OK Soybean Board	$ 24,000
Drought stress in soybeans: establishment of a molecular resource	American Soybean Association	$ 43,813
Soybean variety tests 96	OK Soybean Commission	$ 10,000
Soybean management	OK Soybean Commission	$ 15,000
Soy Diesel Demonstration	OK Soybean Commission	$ 5,000
Soybean breeding and genetics	OK Soybean Commission	$ 9,000
1993 OK soybean	OK Soybean Commission	$ 6,000
1993 OK soybean breeding	OK Soybean Commission	$ 11,000
1993 OK soybean variety	OK Soybean Commission	$ 8,000
Soybean management studies	OK Soybean Commission	$ 15,000
Soybean variety tests - Soybean Commission 94	OK Soybean Commission	$ 7,000
Soybean improvement project: Soy diesel	OK Soybean Commission	$ 2,500
Soybean breeding and genetics 95	OK Soybean Commission	$ 9,000
Soybean variety tests 95	OK Soybean Commission	$ 10,000
Soybean management studies 95	OK Soybean Commission	$ 15,000
Soy Diesel Demonstration 95	OK Soybean Commission	$ 5,000
Soy Diesel Demonstration	OK Soybean Commission	$ 5,000
Soybean breeding and genetics	OK Soybean Commission	$ 9,000
Soybean variety tests	OK Soybean Commission	$ 10,000
Soybean management studies	OK Soybean Commission	$ 15,000
Soybean Research Group Total		**$ 435,013**

OSU College of Veterinary Medicine

Poultry Research

Title	Sponsor *OK St. Board of Ag.	Award Amount
Health Studies		
Role of Bacterial Cyclotoxins in respiratory disease of poultry	ODA*	$ 32,670
Eval. of secretory immunity in Bordetella Avium-Challenged turkeys	ODA*	$ 26,500
Interferon: Growth promotant effects in chickens and role in protection against Salmonellosis	ODA*	$ 18,000
Augmenting broiler phys. adapt. to heat distress for enhanced growth rate, feed efficiency, and survival	ODA*	$ 44,150
Upgrade of existing poultry research facilities for heatdistress research	ODA*	$ 3,560
Epidemiological study of the bacterial diseases of the OK poultry industry	ODA*	$ 25,000
Interdisciplinary research on heat stress in broilers	ODA*	$ 19,581
Growth promotant effects in chickens and role in protection against Salmonella	ODA*	$ 13,360
Serologic detection of infectious Bronchitis, Arkansas 99 Serotype in OK broiler flocks	ODA*	$ 1,826
Interdisciplinary research on heat stress in broilers	ODA*	$ 9,644
Pathophysiology of heat stress in broiler chickens-molecular basis	ODA*	$ 8,644
Antibacterial activity of chicken interferon on chicken macrophages against Salmonella Typhimurium	ODA*	$ 4,875
Prediction of in vivo efficacy of Danofloxacin using in vitro microbial sensitivity assays	ODA*	$ 6,642
An evaluation of dietary caloric density, starter period, and feeding curve profile	ODA*	$ 23,162
Pathophysiology of Ascites in Broiler Chickens	ODA	$ 57,411
Pathophysiology of Ascites in Broiler Chickens	ODA	$ 51,636
Pathophysiology of Ascites in Broiler Chickens	ODA	$ 11,450
Pathophysiology of Ascites in Broiler Chickens	ODA	$ 8,250
The Role of Potassium, Magnesium and Mineral Balance in the Incidence of Sudden Death Syndrome	ODA	$ 19,289
The Role of Potassium, Magnesium and Mineral Balance in the Incidence of Sudden Death Syndrome	ODA	$ 17,994
The Role of Potassium, Magnesium and Mineral Balance in the Incidence of Sudden Death Syndrome	ODA	$ 17,994
The Role of Potassium, Magnesium and Mineral Balance in the Incidence of Sudden Death Syndrome	ODA	$ 17,994
Health Studies Group Total		**$ 439,632**
State Poultry Veterinarian Research		
Coop. Agreement between OK St. Board of Ag. and OSU CVM	ODA*	$ 141,526
Coop. Agreement between OK St. Board of Ag. and OSU CVM to Employ a State Poultry Vet.	ODA*	$ 80,000
Area Extension Poultry Specialist	ODA*	$ 65,120
State Poultry Veterinarian	ODA*	$ 114,347
Area Poultry Extension Specialist	ODA*	$ 63,242
Area Extension Poultry Specialist	ODA*	$ 65,242
State Poultry Veterinarian	ODA*	$ 124,347
State Poultry Veterinarian	ODA*	$ 121,347
Area Poultry Extension Specialist	ODA*	$ 61,642
State Poultry Veterinarian	ODA*	$ 134,698
Area Poultry Extension Specialist	ODA*	$ 68,316
State Poultry Veterinarian	ODA*	$ 135,472

Title	Sponsor *OK St. Board of Ag.	Award Amount
Poultry Extension Specialist	ODA*	$ 70,741
State Poultry Veterinarian	ODA*	$ 144,834
Extension Poultry Specialist	ODA*	$ 73,502
State Poultry Veterinarian	ODA*	$ 144,526
Extension Poultry Specialist	ODA*	$ 75,105
Poultry Extension Specialist	ODA*	$ 75,105
State Poultry Veterinarian Group Funds*		**$ 1,759,112**
*An estimated $200,619 of $1,759,112 is for research, and the remaining amount is for salary and benefits.		
State Poultry Veterinarian Research Group		**$ 200,619**
Poultry Research Total		**$ 640,251**

APPENDIX B

Top Five Private Contributors to OSU Agricultural Research by Commodity

Cattle and Beef Research

Oklahoma Beef Industry Council: The OBIC's activities are funded by beef checkoff dollars from cattle producers all over the state at $1 per head sold. The Council uses checkoff funds for beef promotion, research, and educational programs (Fiscal Year 1998 Beef Checkoff Annual Report). In 1998, 70.8 % of the state program expenditures funded national programs, and 29.2% funded state programs (Fiscal Year 1998 Beef Checkoff Annual Report).

National Cattlemen's Beef Association: As a "producer directed and consumer focused organization, the NCBA is the trade association of America's cattle farmers and ranchers" and is "the marketing organization for the largest segment of the nation's food and fiber industry" (wysiwyg://7http://www.beef.org/groups/index.html).

Far-Mor Biochem: Information not available.

AgTech Products, Inc.: AgTech, Inc. is a recognized world leader in the distribution of veterinary embryo transfer and artificial insemination supplies (http://www.agtechinc.com/)... The product inventory includes "microscopes, electronic biological freezers and nitrogen tanks, ultrasound systems, and laboratory items such as filters, catheters and petri dishes" and the educational division offers videos and books on livestock production (http://www.agtechinc.com/).

Church and Dwight Company: The Company focuses on manufacturing and sales of sodium- bicarbonate based products such as those with the "Arm and Hammer trademark" (http://biz.yahoo.com/p/c/chd.html).

Poultry Research

Cobb Vantress, Inc.: The company specializes in poultry production research and development, and sales of broiler breeding stock (http://www.cobb-vantress.com/). The corporate headquarters are located in Siloam Springs, Arkansas.

Lonza, Inc.: Lonza Group is a manufacturer of products for life science companies. "The Fine Chemicals and Specialties Division is engaged in the development, manufacture and marketing of intermediates, active substances and additives for pharmaceuticals, crop protection agents, vitamins, food and feedstuffs, cosmetics, dyes and pigments, adhesives and fragrances, photographic chemicals, water and wood treatment, household and industrial cleaning agents as well as for a wide range of industrial applications" (http://www.lonza.com/framer2.4.html).

Pfizer, Inc.:

Pfizer, Inc. is one of the world's largest pharmaceutical and consumer healthcare companies. The Company was formed in June 2000, following the pooling of interests merger between Pfizer and Warner-Lambert Company. The Company now represents a significant consumer business encompassing many of the world's best known brands including Halls, Tetra, Benadryl, Sudafed, Listerine, Desitin, Schick, Visine, Ben Gay, Lubriderm, Zantac 75, and Cortizone. The Company operates through four main operating units: Pfizer Pharmaceuticals Group, Warner-Lambert Consumer Division, Pfizer Animal Health Group and Pfizer Global Research and Development. (http://biz.yahoo.com/p/p/pfe/html)

Hoffman LaRoche, Inc.:

> LaRoche Industries Inc. is a privately owned, major diversified producer and distributor of organic and inorganic chemicals worldwide... LaRoche Industries produce chlorine for water treatment, fertilizer for crops, caustic soda for plastics and HCFC's for foam insulation. Their products also assist others in manufacturing processes and production, particularly pharmaceuticals, textiles, construction, environmental treatment, chemical, mining, pulp, paper, and alumina industries. The company is a worldwide producer and distributor of nitrogen, chlor alkali, and fluorocarbon chemical products (http://www.larocheind.com/english/company_ourcompany.html).

Roche Vitamins and Fine Chemicals: The company is a division of the Swiss based pharmaceutical giant Hoffman LaRoche. It owns research and production facilities all over the world and distributes vitamin-based products to feed, food, pharmaceutical and cosmetic industries (http://www.roche.com/vitamins/).

Swine Research

National Pork Producers Council: The NPPC is a large livestock commodity organization with 85,000 producer members in 44 affiliated state associations and is primarily responsible for national pork advertising and promotion programs (http://www.nppc.org/NEWS/nppc.html).

Oklahoma Pork Council: The OPC is a producer organization that "uses federally collected checkoff monies to promote pork and pork products, to fund research, and educate consumers and producers about the pork industry and its products"(http://www.okpork.org/about.html).

Tyson Foods, Inc.: "A fully integrated producer, processor and marketer of a variety of food products consisting of value-enhanced chicken, fresh and frozen chicken and prepared food and other products such as flour and corn tortillas and chips" (http://biz.yahoo.com/p/t/tsn.html).
"Additionally, the company has animal feed, pet food ingredients, and swine operations," and its "integrated operations consist of breeding and rearing chickens, as well as the processing, further processing and marketing of these products" (http://biz.yahoo.com/p/t/tsn.html).

Lonza, Inc.: Lonza Group is a manufacturer of products for life science companies. "The Fine Chemicals and Specialties Division is engaged in the development, manufacture and marketing of intermediates, active substances and additives for pharmaceuticals, crop protection agents, vitamins, food and feedstuffs, cosmetics, dyes and pigments, adhesives and fragrances, photographic chemicals, water and wood treatment, household and industrial cleaning agents as well as for a wide range of industrial applications" (http://www.lonza.com/framer2.4.html).

Wheat Research

Oklahoma Wheat Research Foundation: A non-profit research foundation that focuses on wheat breeding and genetics. The Oklahoma Wheat Research Foundation is funded by 20 % of the checkoff dollars collected by the Oklahoma Wheat Commission (http://www.state.ok.us/-wheat/research.html).

Various Companies: *See Appendix C, page C-10.

Monsanto: "Monsanto Company, a wholly owned subsidiary of Pharmacia, is a leading provider of agricultural solutions worldwide" (http://www.monsanto.com/monsanto/about/default.htm). Specific products include "the Roundup brand family of non-selective herbicides, as well as Roundup Ready soybeans, canola, cotton, and other crops resistant to Roundup brand herbicides" and "a growing range of insect protected crop seeds, including Bollgard and Ingard insect-protected cotton, YieldGard and Maisguard insect-protected corn, and NewLeaf insect-protected potatoes", "and Posilac bovine growth hormone and Quantum hybrid wheat"(http://www.monsanto.com/monsanto/agriculture/default/htm).

IMP Education: *Information not available.

Corn Research

*Specific information was not provided on any corn research.

Cotton Research

Cotton Inc.: A not-for-profit company that supports the cotton industry through research and marketing, and is funded by growers through the Cotton Board, "which is overseen by the U.S. Department of Agriculture" (wysiwyg://89http://www.hoovers.com/co/capsule/8/0,2163,58948,00.html). The coop was established in 1970, and has helped increase cotton's share in the U.S. apparel and home furnishings market from a low of 34% to about 60% (wysiwyg://89http://www.hoovers.com/co/capsule/8/0,2163,58948,00.html).

Various Companies: *See Appendix C, page C-10.

E.I. DuPont de Nemours & Company:

> E.I. DuPont de Nemours is engaged in science and technology in a range of disciplines including high performance materials, specialty chemicals, pharmaceuticals, and biotechnology. The Company operates through 20 strategic business units. Within the strategic business units, approximately 80 businesses manufacture and sell a wide range of products to many different markets, including the transportation, textile, construction, automotive, agricultural, health, pharmaceuticals, packaging and electronics markets. The Company's strategic business units have been aggregated into nine reportable segments: Agriculture & Nutrition, Nylon Enterprise, Performance Coatings & Polymers, Pharmaceuticals, Pigments & Chemicals, Pioneer Polyester Enterprise, Specialty Fibers and Specialty Polymers. (http://biz.yahoo.com/p/d/dd.html)

Peanut Research

Texas Peanut Producers: The producer group funds peanut research, market development, education and promotional programs by providing $2 per ton in checkoff dollars to the Texas Peanut Board (http://www.texaspeanutboard.com/index.html).

Soybean Research

Oklahoma Soybean Commission: Collects and allocates producer funds for soybean promotion, research, and to provide consumer information. The board of directors represent soybean producers in the state.

Oklahoma Soybean Board: Qualified State Soybean Boards oversee marketing efforts at the state level and nominate soybean farmers to serve on the United States Soybean Board (http://www.talksoy.com/usbres.htm).

American Soybean Association: A non-profit, farmer controlled organization working to maintain and increase demand for U.S. origin soybeans and soybean products (http://www.asa-europe.org/). The goal of the American Soybean Association is to provide data and information focusing on the soy complex globally but specifically in Europe (http://www.asa-europe.org/).

APPENDIX C

General Charts

Top Five Contributors to OSU Agricultural Research 1989-1999 Chart F

	Research Funding
1. Oklahoma Beef Industry Council	**$ 1,508,505**
2. Oklahoma Wheat Res. Foundation	**$ 610,582**
3. Cobb-Vantress, Inc.	**$ 517,000**
4. Lonza, Inc.	**$ 304,333**
5. Roche Vitamins & Fine Chemicals	**$ 272,350**
6. Other Private Contributors	$ 4,065,201

Summary of OSU College of Agriculture Research Funding Sources 1989-1999 Chart G
Summary of OSU College of Agriculture Research Funding by Departments 1989-1999 Chart H

	Animal Science	Agricultural Economics	Plant & Soil Sciences	Biosystems & Agricultural Engineering	Veterinary Medicine	Total
Private	$ 5,231,661	$ 18,000	$ 1,688,206	$ 340,104		$ 7,277,971
State	$ 1,373,198		$ 523,021	$ 417,655	$ 640,251	$ 2,954,125
Federal	$ 5,766,351	$ 195,440	$ 1,457,921	$ 2,052,967		$ 9,472,679
Other Public Funds		$ 21,250	$ 54,564	$ 245,707		$ 321,521
***Total**	**$ 12,371,210**	**$ 234,690**	**$ 3,723,712**	**$ 3,056,433**	**$ 640,251**	**$ 20,026,296**

*Total includes research funds since 1989 and accounts in progress.

Summary of OSU College of Agriculture Funding by Commodity 1989-1999 Chart I

Commodity	Research Funding
Cattle & Beef	$ 9,030,508
Poultry	$ 5,073,347
Wheat	$ 2,496,199
Swine	$ 2,456,681
Soybeans	$ 435,013
Cotton	$ 327,644
Peanuts	$ 206,904
Corn	$
***Total**	**$ 20,026,296**

Summary of OSU College of Agriculture Salaries Dedicated to Research by Departments 1989-1999 Chart J

	Animal Science	Agricultural Economics	Plant & Soil Sciences	Biosystems & Agricultural Engineering	Veterinary Medicine	Total
Salaries	**$ 12,734,713**	**$ 599,003**	**$ 3,192,750**	**$ 13,380,470**	**$ 1,488,610**	**$ 31,395,546**

OSU Cattle and Beef Research Funding 1989-1999 Chart 7

Year	Research Funding	CPI
1989	$ 70,849.00	$ 95,189.06
1990	$ 502,806.77	$ 640,915.13
1991	$ 588,388.70	$ 719,189.71
1992	$ 655,813.75	$ 778,749.61
1993	$ 837,808.88	$ 965,944.36
1994	$ 893,445.14	$ 1,004,372.20
1995	$ 858,567.37	$ 938,565.12
1996	$ 809,060.82	$ 859,079.24
1997	$ 963,419.85	$ 1,000,035.81
1998	$ 1,011,455.35	$ 1,033,794.24
1999	$ 939,024.19	$ 939,024.19

OSU Cattle and Beef Research Funding per Operation 1989-1999 Chart 8

Year	# of Operations	$ / Operation	CPI
1989	61,000	$	1.56
1990	62,000	$	10.34
1991	62,000	$	11.60
1992	64,000	$	12.17
1993	62,000	$	15.58
1994	62,000	$	16.20
1995	63,000	$	14.90
1996	64,000	$	13.42
1997	64,000	$	15.63
1998	62,000	$	16.67
1999	60,000	$	15.65

OSU Department of Animal Science Cattle and Beef Research Funding Sources 1989-1999 Chart 9

	Research Funding	Percent
Private	$ 3,002,488	33%
State	$ 1,189,561	13%
Federal	$ 4,838,459	54%
***Total**	**$ 9,030,508**	**100%**

Top Five Private Contributors to OSU Cattle and Beef Research 1989-1999 Chart 10

1. Oklahoma Beef Industry Council	**$ 1,508,505**
2. National Cattlemen's Beef Association	**$ 217,781**
3. Far-Mor Biochem	**$ 169,602**
4. Agtech Products, Inc.	**$ 149,129**
5. Church & Dwight	**$ 142,000**
6. Other Private Contributors	$ 815,471

OSU Department of Animal Science Cattle and Beef Research Funding Breakdown 1989-1999 Chart 11

Types of Research	Research Funding
Animal Health	$ 553,331
Reproduction and Breeding Genetics	$ 1,311,406
Nutrition	$ 4,006,092
Food Science	$ 2,783,824
Awards and Assistantships	$ 375,855
***Total**	**$ 9,030,508**

Poultry Charts

Gross Income: Broiler Production 1989-1999 Chart 3

Year	Gross Income
1989	$ 21,075,600
1990	$ 21,614,400
1991	$ 23,681,600
1992	$ 23,985,600
1993	$ 26,632,000
1994	$ 31,956,000
1995	$ 34,108,000
1996	$ 38,421,360
1997	$ 38,044,680
1998	$ 43,519,680
1999	$ 44,548,980

Estimated Average Gross Income per Broiler Operation 1992, 1997, & 1999 Chart 4

Year	Gross Income
1992	$ 45,341
1993	
1994	
1995	
1996	
1997	$ 60,197
1998	
1999	$ 67,092

OSU Poultry Research Funding 1989-1999 Chart 8

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
Agricultural Economics	$ 750.00	$ 1,050.00	$ 950.00	$ 950.00	$ 950.00	$ 750.00	$ 1,500.00	$ 2,500.00	$ 750.00	$ 3,000.00	$ 3,000.00	$ 16,150.00
Biosystems & Agricultural Engineering		$ 31,666.66	$ 52,186.67	$ 103,809.48	$ 72,142.81	$ 315,170.31	$ 257,625.31	$ 210,361.56	$ 327,506.31	$ 298,244.23	$ 250,244.23	$ 1,918,957.57
Animal Science	$ 16,000.00	$ 18,045.45	$ 34,695.45	$ 52,873.72	$ 70,222.97	$ 90,685.18	$ 158,338.01	$ 190,564.51	$ 319,939.51	$ 400,768.67	$ 383,268.67	$ 1,735,402.14
Plant & Soil Sciences								$ 11,977.50	$ 11,977.50		$ 10,000.00	$ 33,955.00
Veterinary Medicine		$ 62,440.00	$ 97,145.50	$ 63,411.00	$ 54,523.50	$ 41,623.50	$ 31,511.50	$ 25,351.00	$ 18,642.00	$ 17,994.00	$ 17,994.00	$ 430,636.00
Total	**$ 16,750.00**	**$ 113,202.11**	**$ 184,977.62**	**$ 221,044.20**	**$ 197,839.28**	**$ 448,228.99**	**$ 448,974.82**	**$ 440,754.57**	**$ 678,815.32**	**$ 720,006.90**	**$ 664,506.90**	**$ 4,135,100.71**
CPI Total	**$ 22,504.44**	**$ 144,295.88**	**$ 226,098.84**	**$ 262,480.14**	**$ 228,097.05**	**$ 503,879.55**	**$ 490,808.43**	**$ 468,003.26**	**$ 704,614.53**	**$ 735,908.89**	**$ 664,506.90**	

OSU Poultry Research Funding Breakdown 1989-1999 Chart 9

	Nutrition	Health	Waste	Socio-Economic	Reprod. & Breeding Gen.	Other	Salaries
Animal Science	$ 828,683	$ 830,335	$ 160,653		$ 292,000		$ 1,211,916
Agricultural Economics			$ 3,000	$ 13,150			$ 88,351
Plant & Soil Sciences			$ 43,955				$ 3,003
Veterinary Medicine		$ 439,632				$ 200,619	$ 1,488,610
Biosystems & Agricultural Engineering			$ 2,261,320				$ 1,445,028
***Total**	**$ 828,683**	**$ 1,269,967**	**$ 2,468,928**	**$ 13,150**	**$ 292,000**	**$ 200,619**	**$ 4,236,908**

OSU Poultry Research Funding Sources 1989-1999 Chart 10

	Animal Science	Agricultural Economics	Plant & Soil Sciences	Biosystems & Agricultural Engineering	Veterinary Medicine	Total
Private	$ 1,941,068			$ 150,000		$ 2,091,068
State	$ 44,403		$ 23,955	$ 190,025	$ 640,251	$ 898,634
Federal	$ 126,200	$ 16,150	$ 20,000	$ 1,675,588		$ 1,837,938
Other Public Funds				$ 245,707		$ 245,707
***Total**	**$ 2,111,671**	**$ 16,150**	**$ 43,955**	**$ 2,261,320**	**$ 640,251**	**$ 5,073,347**

Top Five Private Contributors to OSU Poultry Research 1989-1999 Chart 11

	Research Funding
1. Cobb-Vantress, Inc.	**$ 517,000**
2. Lonza, Inc.	**$ 259,333**
2. Pfizer, Inc.	**$ 212,300**
4. Hoffman LaRoche, Inc.	**$ 169,900**
5. Roche Vitamins & Fine Chemicals	**$ 163,750**
6. Other Private Contributors	$ 742,285

OSU Poultry Research Funding per Operation 1989-1999 Chart 12

Year	Operations	Research Funding	CPI	CPI $/Operation
1989		$ 16,750.00	$ 22,018.15	
1990		$ 113,202.11	$ 141,177.84	
1991		$ 184,977.62	$ 221,213.15	
1992	1020	$ 221,044.20	$ 256,808.30	$ 251.77
1993		$ 197,839.28	$ 223,168.18	
1994		$ 448,228.99	$ 492,991.40	
1995		$ 448,974.82	$ 480,202.73	
1996		$ 440,754.57	$ 457,890.34	
1997	1110	$ 678,815.32	$ 689,388.77	$ 621.07
1998		$ 720,006.90	$ 720,006.90	
1999		$ 664,506.90	$ 664,506.90	

Swine Charts

OSU Swine Research Funding 1989-1999 Chart 5

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
Agricultural Economics	$ 3,250.00	$ 10,990.00	$ 9,150.00	$ 9,150.00	$ 9,150.00	$ 14,250.00	$ 17,350.00	$ 16,500.00	$ 67,125.00	$ 50,625.00	$ 12,000.00	$ 218,540.00
Plant & Soil Sciences								$ 32,519.00	$ 57,012.33	$ 72,495.83	$ 191,125.32	$ *353,152.48
Biosystems & Agricultural Engineering						$ 5,200.00	$ 5,200.00	$ 5,200.00	$ 49,000.00	$ 127,419.67	$ 98,419.67	$ 290,439.34
Animal Science	$ 56,233.33	$ 71,005.69	$ 82,214.19	$ 91,165.75	$ 92,205.50	$ 82,583.43	$ 109,040.18	$ 55,951.68	$ 100,301.68	$ 155,524.18	$ 205,104.18	$ 1,101,329.79
Total	$ 59,483.33	$ 81,995.69	$ 91,364.19	$ 100,315.75	$ 101,355.50	$ 102,033.43	$ 131,590.18	$ 109,170.68	$ 273,439.01	$ 406,064.68	$ 506,649.17	$ 1,963,461.61
CPI Total	$ 79,918.73	$ 104,517.84	$ 111,674.79	$ 119,120.48	$ 116,856.93	$ 114,701.55	$ 143,851.21	$ 115,919.92	$ 283,831.40	$ 415,032.98	$ 506,649.17	

OSU Swine Research Funding Breakdown 1989-1999 Chart 8

	Nutrition	Health	Reproduction & Breeding Genetics	Socioeconomic	Waste	Other	Salaries
Animal Science	$ 199,305	$ 119,700	$ 750,703		$ 159,323		$ 2,362,775
Agricultural Economics				$ 68,090	$ 54,000	$ 96,450	$ 510,652
Plant & Soil Sciences	$ 30,967				$ 569,284		$ 119,137
Veterinary Medicine							$
Biosystems & Agricultural Engineering					$ 388,859		$ 536,665
*Total	$ 230,272	$ 119,700	$ 750,703	$ 68,090	$ 1,191,466	$ 96,450	$ 3,529,229

OSU Swine Research Funding Sources 1989-1999 Chart 9

	Animal Science	Agricultural Economics	Plant & Soil Sciences	Biosystems & Agricultural Engineering	Total
Private	$ 288,105	$ 18,000	$ 179,357	$ 80,000	$ 565,462
State	$ 139,234		$ 48,955	$ 91,730	$ 279,919
Federal	$ 801,692	$ 179,290	$ 391,939	$ 217,129	$ 1,590,050
Other Public Funds		$ 21,250			$ 21,250
*Total	$ 1,229,031	$ 218,540	$ 620,251	$ 388,859	$ 2,456,681

Top Five Private Contributors to OSU Swine Research 1989-1999 Chart 10

Contributor	Research Funding
1. National Pork Producers Council	$ 98,305
2. OK Pork Council	$ 80,000
3. Private Funds from University of Illinois	$ 74,272
4. Tyson Foods	$ 57,500
5. Lonza Inc.	$ 45,000
6. Other Private Contributors	$ 128,800

OSU Swine Research Funding per Operation 1989-1999 Chart 11

Year	Farms	Research Funding	CPI	$/Operation
1989	6,000	$ 59,483.33	$ 79,918.73	$ 13.32
1990	5,200	$ 81,995.69	$ 104,517.84	$ 20.10
1991	4,300	$ 91,364.19	$ 111,674.79	$ 25.97
1992	4,100	$ 100,315.75	$ 119,120.48	$ 29.05
1993	3,500	$ 101,355.50	$ 116,856.93	$ 33.39
1994	3,500	$ 102,033.43	$ 114,701.55	$ 32.77
1995	3,400	$ 131,590.18	$ 143,851.21	$ 42.31
1996	3,400	$ 109,170.68	$ 115,919.92	$ 34.09
1997	3,100	$ 273,439.01	$ 283,831.40	$ 91.56
1998	3,100	$ 406,064.68	$ 415,032.98	$ 133.88
1999	2,800	$ 506,649.17	$ 506,649.17	$ 180.95

Wheat Research Funding 1989-1999 Chart 9

Year	Research Funding	CPI
1989	$ 42,081.58	$ 56,538.64
1990	$ 123,996.62	$ 158,055.37
1991	$ 115,946.62	$ 141,721.99
1992	$ 80,988.29	$ 96,169.99
1993	$ 128,183.62	$ 147,788.17
1994	$ 113,326.49	$ 127,396.72
1995	$ 150,678.16	$ 164,717.73
1996	$ 154,428.16	$ 163,975.34
1997	$ 237,733.66	$ 246,769.02
1998	$ 361,740.33	$ 369,729.69
1999	$ 365,808.99	$ 365,808.99

Wheat Research Funding per Farm 1992 & 1997 Chart 10

Year	Research Funding	CPI	Farms	$ / Farm
1989	$ 42,081.58	$ 56,538.64		
1990	$ 123,996.62	$ 158,055.37		
1991	$ 115,946.62	$ 141,721.99		
1992	$ 80,988.29	$ 96,169.99	16,716	$ 5.75
1993	$ 128,183.62	$ 147,788.17		
1994	$ 113,326.49	$ 127,396.72		
1995	$ 150,678.16	$ 164,717.73		
1996	$ 154,428.16	$ 163,975.34		
1997	$ 237,733.66	$ 246,769.02	13,935	$ 17.71
1998	$ 361,740.33	$ 369,729.69		
1999	$ 365,808.99	$ 365,808.99		

Department of Plant and Soil Sciences Wheat Research Funding Sources 1989-1999 Chart 11

	Research Funding	Percent
ıte	$ 1,199,125	47%
	$ 412,303	16%
ral	$ 839,521	35%
r Public Funds	$ 45,250	2%
l	**$ 2,496,199**	**100%**

Five Private Contributors to OSU Wheat Research 1989-1999 Chart 12

ributor	Research Funding	
lahoma Wheat arch Foundation	**$ 610,582**	
rious Companies*	**$ 198,043**	*(See page C-10)
nsanto	**$ 120,000**	
bcontract - ington State ersity	**$ 111,000**	
P Education	**$ 45,000**	
ıer Private ibutors	$ 114,500	

OSU Cotton Research Funding 1989-1999 Chart 9

Year	Research Funding	CPI
1989	$ 3,979.07	$ 5,346.07
1990	$ 9,898.71	$ 12,617.64
1991	$ 25,648.71	$ 31,350.51
1992	$ 25,648.71	$ 30,456.70
1993	$ 36,852.71	$ 42,489.01
1994	$ 23,786.00	$ 26,739.19
1995	$ 26,588.17	$ 29,065.55
1996	$ 21,088.17	$ 22,391.90
1997	$ 27,488.17	$ 28,532.89
1998	$ 40,785.17	$ 41,685.95
1999	$ 31,965.17	$ 31,965.17

OSU Cotton Research Funding per Farm 1992 & 1997 Chart 10

Year	Research Funding	CPI	Farms	$ / Farm
1989	$ 3,979.07	$ 5,346.07		
1990	$ 9,898.71	$ 12,617.64		
1991	$ 25,648.71	$ 31,350.51		
1992	$ 25,648.71	$ 30,456.70	1,726	$ 17.65
1993	$ 36,852.71	$ 42,489.01		
1994	$ 23,786.00	$ 26,739.19		
1995	$ 26,588.17	$ 29,065.55		
1996	$ 21,088.17	$ 22,391.90		
1997	$ 27,488.17	$ 28,532.89	849	$ 33.61
1998	$ 40,785.17	$ 41,685.95		
1999	$ 31,965.17	$ 31,965.17		

OSU Department of Plant and Soil Sciences Cotton Research Funding Sources 1989-1999 Ch

	Research Funding	Percent
Private	$ 134,351	41%
State	$ 27,513	8%
Federal	$ 156,466	48%
Other Public Funding	$ 9,314	3%
***Total**	**$ 327,644**	**100%**

Peanut Charts

OSU Peanut Research Funding 1989-1999 Chart 9

Year	Research Funding	CPI
1989	$ 9,000.00	$ 12,091.94
1990	$ 14,345.50	$ 18,285.85
1991	$ 5,345.45	$ 6,533.76
1992	$ 5,345.45	$ 6,347.48
1993	$ 5,345.45	$ 6,162.99
1994	$ 5,345.45	$ 6,009.12
1995	$ 7,762.12	$ 8,485.36
1996	$ 17,532.12	$ 18,616.01
1997	$ 23,832.12	$ 24,737.89
1998	$ 33,825.79	$ 34,572.86
1999	$ 40,775.79	$ 40,775.79

OSU Peanut Research Funding per Farm 1992 & 1997 Chart 10

Year	Research Funding	CPI	Farms	$ / Farm
1989	$ 9,000.00	$ 12,091.94		
1990	$ 14,345.50	$ 18,285.85		
1991	$ 5,345.45	$ 6,533.76		
1992	$ 5,345.45	$ 6,347.48	908	$ 6.99
1993	$ 5,345.45	$ 6,162.99		
1994	$ 5,345.45	$ 6,009.12		
1995	$ 7,762.12	$ 8,485.36		
1996	$ 17,532.12	$ 18,616.01		
1997	$ 23,832.12	$ 24,737.89	602	$ 41.09
1998	$ 33,825.79	$ 34,572.86		
1999	$ 40,775.79	$ 40,775.79		

OSU Department of Plant and Soil Sciences Peanut Research Funding Sources 1989-1999 Chart 11

	Research Funding	Percent
Private	$ 10,154	5%
State	$ 119,950	58%
Federal	$ 76,800	37%
***Total**	**$ 206,904**	**100%**

Soybean Charts

OSU Soybean Research Funding 1989-1999 Chart 9

Year	Research Funding	CPI
1989	$	$
1990	$ 5,391.67	$ 6,872.63
1991	$ 5,391.67	$ 6,590.26
1992	$ 5,391.67	$ 6,402.37
1993	$ 8,516.37	$ 9,818.87
1994	$ 34,816.03	$ 39,138.67
1995	$ 40,482.70	$ 44,254.71
1996	$ 25,126.20	$ 26,679.57
1997	$ 34,876.20	$ 36,201.71
1998	$ 55,876.20	$ 57,110.28
1999	$ 104,376.20	$ 104,376.20

OSU Soybean Research Funding per Farm 1992 & 1997 Chart 10

Year	Research Funding	CPI	Farms	$ / Farm
1989	$	$		
1990	$ 5,391.67	$ 6,872.63		
1991	$ 5,391.67	$ 6,590.26		
1992	$ 5,391.67	$ 6,402.37	1,196	$ 5.35
1993	$ 8,516.37	$ 9,818.87		
1994	$ 34,816.03	$ 39,138.67		
1995	$ 40,482.70	$ 44,254.71		
1996	$ 25,126.20	$ 26,679.57		
1997	$ 34,876.20	$ 36,201.71	1,921	$ 18.85
1998	$ 55,876.20	$ 57,110.28		
1999	$ 104,376.20	$ 104,376.20		

OSU Department of Plant and Soil Sciences Soybean Research Funding 1989-1999 Chart 11

	Research Funding	Percent
Private	$ 370,313	85%
State	$ 64,700	15%
Federal	$ -	0%
***Total**	**$ 435,013**	**100%**

Private Contributors to OSU College of Agriculture Research

1. Oklahoma Beef Industry Council	$	1,508,505
2. Oklahoma Wheat Research Foundation	$	610,582
3. Cobb-Vantress, Inc.	$	517,000
4. Lonza Inc.	$	304,333
5. Roche Vitamins & Fine Chemicals	$	272,350
6. Various Companies* (p. C-10)	$	247,256
7. Pfizer Animal Health, Inc.	$	236,350
8. Church & Dwight Co., Inc.	$	224,000
9. National Cattlemen's Beef Association	$	217,781
10. Hoffman LaRoche, Inc.	$	205,900
AgTech Products, Inc.	$	174,129
Far-Mor Biochem	$	169,602
Oklahoma Soybean Commission	$	166,500
Oklahoma Soybean Board	$	160,000
Oklahoma Broiler Council	$	150,000
Syntex Agribusiness	$	131,210
Monsanto	$	120,000
Subcontract - Washington State University	$	111,000
BASF Corp.	$	110,000
Oklahoma Pork Council	$	80,000
Cotton, Inc.	$	75,384
Daiichi Pharmaceutical Co., Inc.	$	65,000
Tyson Foods, Inc.	$	57,500
Hoechst-Roussel Agri-Vet. Co.	$	57,200
Certified Angus Beef	$	45,774
IMP Education	$	45,000
American Soybean Association	$	43,813
Subcontract - University of Illinois	$	43,305
National Pork Producers Council	$	43,000
Great Lakes Biochemical Co.	$	40,700
Noble Foundation	$	40,000
American Shorthorn Association	$	36,500
FMC - Corporation Chemical Research & Development Center	$	33,000
Hubbs-Sea World, Inc.	$	32,699
Bayer Agricultural Division	$	32,000
Degussa Corporation	$	31,300
Subcontract - University of Illinois	$	30,967
JEFO Import Export	$	29,300
Roche Vitamins, Inc.	$	29,000
Elanco An. Health/Eli Lilly & Co.	$	28,500
Horton Feedlot & Research	$	28,150
Colorado State University	$	27,000
SmithKline Beecham An. Health	$	27,000
ChemGen Corporation	$	25,036
Diamond V Mills	$	25,000
Farmland Industries, Inc.	$	25,000
Hybrid Turkeys, Inc.	$	25,000
Bio-Technologies Lab, Inc.	$	24,000
IMC-Agrico Company	$	24,000
Cynamid Agricultural Products Research Division	$	21,500
InterAg	$	21,398
Syntex USA, Inc.	$	21,000
NutriBasics	$	20,750
American Angus Association	$	20,000
Micro-Lite, Inc.	$	20,000
Chelated Minerals, Corp.	$	18,500
NOVUS International, Inc.	$	16,500
Kemin Industries, Inc.	$	16,300
Fleischmann's Yeast	$	16,000
National Livestock and Meat Board	$	16,000
Refrigeration Research Foundation	$	15,000
Roche Animal Nutrition & Health	$	15,000
Rohm & Haas Company	$	15,000
Oklahoma Peanut Commission	$	14,500
Lilly Research Lab Div.	$	14,000
SRPIAP	$	13,900
Subcontract - Purdue University	$	13,500
Nutri-Quest, Inc.	$	12,750
Agrimerica, Inc.	$	12,000
Zinpro Corporation	$	11,800
Subcontract - North Carolina State University	$	9,308

Schering-Plough Animal Health	$	7,629
Novartis Crop Protection, Inc.	$	7,500
Miles Animal Health	$	6,960
Continental Grain Co.	$	6,500
Special Nutrients, Inc.	$	6,500
Zeolitics, Inc.	$	6,250
Cryovac North America	$	6,000
E.I. DuPont Demours & Co.	$	6,000
Egyptian Cultural & Education Bureau	$	6,000
Texas A & M University	$	6,000
Phillips Petroleum Co./Provesta	$	5,500
Texas Peanut Producers	$	5,500
Brookside Agra, L.C.	$	5,000
Gerondelis Foundation Inc.	$	5,000
I.D. Russell Company Laboratories	$	5,000
Upjohn Company	$	5,000
Metabolite Technology Inc.	$	4,500
Pittman-Moore	$	4,500
Nutra Blend Corp.	$	3,500
Rhone-Poulenc Animal Nutrition	$	3,500
Feed Flavors, Inc.	$	3,000
John Deere & Co.	$	3,000
Moorman Manufacturing Co.	$	3,000
DuPont Agricultural Products	$	2,500
Merrick Foods, Inc.	$	2,500
Venture Minerals & Resources, Inc.	$	2,500
Dawe's Inc. Laboratories	$	2,000
Pro-Edge	$	2,000
Robert Terrell Associates	$	2,000
Winston Chemical, Inc.	$	1,000
Syntex Animal Health	$	800
Total	**$**	**7,277,971**

State Contributors to OSU College of Agriculture Research

1. Oklahoma Center for Applied Research	**$**	**821,706**
2. Oklahoma Department of Agriculture	**$**	**640,251**
3. Oklahoma State Regents for Higher Education	**$**	**227,190**
4. State of Oklahoma	**$**	**216,938**
5. Oklahoma Conservation Commission	**$**	**206,025**
6. OCAST	**$**	**183,637**
7. Oklahoma Wheat Commission	**$**	**159,578**
8. Langston University	**$**	**120,370**
9. Oklahoma Peanut Commission	**$**	**105,450**
10. Oklahoma Department of Commerce	**$**	**96,000**
OSU - Environmental Institute Water Center	$	48,955
Water Research Center	$	47,600
Oklahoma Department of Environmental Quality	$	32,000
OU Health Science Center	$	20,295
Division of Agricultural Sciences and Natural Resources	$	18,130
University of Oklahoma	$	10,000
Total	**$**	**2,954,125**

Federal Contributors to OSU College of Agriculture Research

1. USDA	**$**	**5,160,197**
2. OSU Experiment Station (federal & state funds)	**$**	**2,418,024**
3. US EPA	**$**	**1,440,732**
4. Public Health Services/National Institute of Health	**$**	**187,509**
5. US EPA/ University of Missouri subcontract	**$**	**147,345**
US Department of Energy	$	63,000
US Geological Survey/Oklahoma Water Resources Research Institute	$	45,872
SRPIAP - GA U	$	10,000
Total	**$**	**9,472,679**

Other Public Contributors to OSU College of Agriculture Research

1. City of Tulsa	**$**	**245,707**
2. City of Guymon	**$**	**21,250**
3. N/A	**$**	**54,564**
Total	**$**	**321,521**

Total Contributor Research Funding **$ 20,026,296**

***Various Companies: "Integrated Weed Control Programs for Small Grains"**

(Totals are not the same as those included in crop section charts because this data was provided at a later date.)

Private Contributors

BASF Corporation	$	4,500
Dow Blanco	$	1,000
CIBA - Geigy	$	17,500
Mobay Corporation	$	2,000
Sandoz Corporation	$	13,000
Monsanto	$	31,250
Cyanamid	$	12,500
DuPont Nemours	$	7,000
Rohm Haas	$	2,700
Miles, Inc.	$	7,000
FMC Corporation	$	5,000
Dow USA	$	1,000
AgrEvo	$	12,000
Bayer Corporation	$	9,000
Ball Research	$	19
Weed Science Society	$	1,000
Zeneca	$	9,200
Griffin Corporation	$	1,000
Novartis	$	9,000
OK Fertilizer & Chemical	$	1,000
Total	$	146,669

***Various Companies: "Cotton Breeding and Genetics"**

Private Contributors

Brownfield Seed	$	1,625
Cargill	$	2,000
Chembred	$	600
Sure Grow Research	$	300
Delta Pine Land Co.	$	5,125
Stoneville Pedigreed	$	625
Seedco Corporation	$	2,187
G & P Seed Company	$	937
Bronco Seed	$	1,750
P & H Seed Company	$	1,312
Michigan Biotech (MBI)	$	3,850
Griffin Corporation	$	1,000
Paymaster Seed	$	1,625
AGRIPRO	$	2,750
Helena Chemical	$	2,500
Holland Cottonseed	$	250
Dupont	$	3,000
Bayer Corporation	$	1,500
FMC Corporation	$	2,750
Mycogen Corporation	$	1,125
Novartis	$	750
Aventis	$	2,000
Terra International	$	500
Total	$	40,061

Consolidated Account: "Wheat Research"

Private Contributors

CIBA - Geigy	$	2,500
Gustafson	$	6,250
Rhone Polenc	$	4,500
Total	$	13,250