

FUNDED RESEARCH - 2005

Category	Project Title	ID#	Investigator	Organization
Animal Science	Association of compositional, structural soundness, health, and genetic marker status with the ability of a commercial line of young sows to successfully complete parity one	05-081	Stalder, Kenneth J.	Iowa State University
Animal Science	Effect of Neonatal Litter Size and Early Puberty Stimulation on Sow Longevity and Reproductive Performance	05-082	Flowers, W. L.	North Carolina State University
Animal Science	Analysis of periparturient risk factors affecting longevity and subsequent performance of sows of parities one to three in breeding herds	05-100	Deen, John	Regents of the University of Minnesota
Animal Science	Discovery and Validation of Genetic Markers for Sow Longevity	05-107	Rothschild, Max	Iowa State University
Animal Science	Development of a Condition Scoring Guide - using live animals	05-172	Karriker, Locke	Iowa State University
Animal Welfare	How does drinking behavior influence feed intake and the development of behavior problems in newly weaned pigs?	05-052	Widowski, Tina	University of Guelph
Animal Welfare	The effects of feeding schedule on body condition, aggressiveness, and reproductive failure in group housed gestating sows.	05-060	Tokach, Mike D.	Kansas State University
Animal Welfare	Comparison of Management Factors Affecting Aggression in Group Housed Sows	05-067	Gonyou, Harold W.	Prairie Swine Centre, Inc.
Animal Welfare	The frequency of the HAL-1843 mutation of the RYR gene in dead and non-ambulatory pigs on arrival at the packing plant.	05-069	Ellis, Michael	University of Illinois
Animal Welfare	Predictors of the incidence of injury, fatigue and mortality in transported hogs	05-073	Deen, John	Regents of the University of Minnesota
Animal Welfare	Comparison of Handling Attributes and Physiological Indicators of Stress and Welfare During Marketing of Pigs from Conventional Small Pens and Large Pen Auto Sort Systems	05-137	Gonyou, Harold W.	Prairie Swine Centre, Inc.
Animal Welfare	Development of improved trailer designs and transport management practices that create the optimum environment for market weight pigs during transport and minimize transport losses.	05-192	Ellis, Michael	University of Illinois
Animal Welfare	An Industry Education Program for Understanding the Basics of the Space Allocation Debate in Pig Production - 05-211	05-211	Kliebenstein, James B.	Iowa State University
Breeding & Genetics	Development of a Database to Evaluate Genetics of Health	05-171	Baas, Tom J.	Iowa State University
Environment/Odor	Influence of corn co-products on air emissions and nutrient excretions from grow-finish swine.	05-111	Powers, Wendy	Iowa State University
Environment/Odor	Evaluation of Boric Acid and Sodium Tetraborate to Reduce Ammonia and Hydrogen Sulfide Emissions from Swine Facilities	05-112	Yokoyama, Melvin T.	Michigan State University
Environment/Odor	Partitioning between pit and wall emission streams of Hydrogen sulfide, ammonia, particulate matter, and odor from deep-pit pig finishing facilities for decision support in selecting emission control technologies	05-113	Jacobson, Larry D.	Regents of the University of Minnesota

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Environment/Odor	Assessing the impact of swine sulfur intake from drinking water on odor and gaseous emissions and manure nutrients	05-115	Predicala, Bernardo	Prairie Swine Centre, Inc.
Environment/Odor	Demonstrating Innovative Use of Precision Farming Technologies to Optimize Manure Nutrient Utilization and Reduce Environmental Concerns	05-117	Wolkowski, Richard	University of Wisconsin-Madison
Environment/Odor	Developing a Decision Support Tool to Optimize Swine Production Facility Layout to Minimize Downwind Air Quality Impacts	05-118	Sauer, Thomas J.	USDA, ARS, Midwest Area
Environment/Odor	Implementing Mass Nutrient Balance Procedures on Air Quality Consent Agreement Farms	05-129	Koelsch, Rick	University of Nebraska-Lincoln
Environment/Odor	Estimation of the mass balance of nutrients for specific production phases and the flow of nutrients through a swine farm	05-130	Carter, Scott	Oklahoma State University
Environment/Odor	On-Site Biomethanol Production from Swine Waste Digester Methane	05-131	Sharma-Shivappa, Ratna R.	North Carolina State University
Environment/Odor	Evaluation of the effectiveness of a biocurtain and an electrostatic space charge system for reducing emissions of total suspended particulate matter from swine building exhaust streams	05-132	Ellis, Michael	University of Illinois
Environment/Odor	Manure-Phosphorus in Soil: Detection and Mobility of Phytate	05-140	Deng, Shiping	Oklahoma State University
Environment/Public Health	Understanding health-related microbial, odor, and ammonia fate following swine lagoon wastewater application by center pivot irrigation	05-142	Thurston-Enriquez, Jeanette	USDA-ARS, Northern Plains Area
NAPES lit review	Aspects of Yeast-based Products in Enhancing Animal Production	05-134	Mateo, Christopher	Rural Technologies, Inc.
NAPES lit review	Critical Review of Acidifiers	05-169	Pettigrew, James E.	University of Illinois
NAPES lit review	Management Guide for Reduced Usage of Antibiotics in Swine Production	05-173	Stein, Hans H.	South Dakota State University
Pork Quality	The impact of marbling on consumer and trained taste panel acceptability.	05-094	McKeith, Floyd K.	University of Illinois
Pork Quality	Continued selection for rapid growth: Implications for pork quality	05-097	Lonergan, Steven	Iowa State University
Pork Quality	Stepwise discriminate and latent variable analysis of pre-harvest process factors influence on fresh pork quality	05-101	Berg, Eric P.	University of Missouri - Columbia
Pork Safety/Pre-Harvest	Investigation linking use of antibiotics in swine and dissemination of antibiotic resistance genes and bacteria in the environment surrounding swine farms.	05-039	Mackie, Roderick	University of Illinois
Pork Safety/Pre-Harvest	Longitudinal evaluation of the effect of ventilation and environmental management of swine barns on Salmonella prevalence in finishing swine.	05-041	Funk, Julie	Ohio State University
Pork Safety/Pre-Harvest	Use of sodium chlorate to eliminate gram-negative pathogens in live hogs: Dose titration study to determine safe tissue residues	05-043	Smith, David J.	USDA-ARS, Northern Plains Area
Pork Safety/Pre-Harvest	Determination of the diagnostic sensitivity and specificity of a reference method for Salmonella sp. detection in swine fecal samples of known infection status.	05-053	Love, Brenda	Pennsylvania State University

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Pork Safety/Pre-Harvest	Sequencing of 10 potential molecular epidemiological targets from a collection of food safety relevant Salmonella spp.	05-063	Dowd, Scot E.	USDA, ARS, Southern Plains Area
Pork Safety/Pre-Harvest	Macrolide, lincosamide, and streptogramin B (MLSB) resistance in soils amended with swine manure	05-068	Zilles, Julie	University of Illinois
Pork Safety/Pre-Harvest	Development of a Microarray for the Rapid and Simultaneous Detection and Tracking of Bacterial and Viral Foodborne Pathogens.	05-072	Gebreyes, Wondwossen A.	North Carolina State University
Pork Safety/Pre-Harvest	Identifying the Genetic Profile of the Salmonella-carrier Pig to Improve Food Safety and Decrease Pre-Harvest Disease	05-176	Bearson, Shawn	USDA, ARS, Midwest Area
Pork Safety/Pre-Harvest	The effects of water delivery of probiotics or organic acids on weaning pig performance, intestinal health and integrity, and immune status	05-181	Radcliffe, John Scott	Purdue University
Pork Safety/Pre-Harvest	Fate of Estrogens in Pig Waste (Year-2) (04-205-year 1)	05-185	Singh, Ashok	Regents of the University of Minnesota
Pork Safety/Pre-Harvest	The Evaluation of Antibiotic Usage Information Systems in Swine	05-187	Deen, John	Regents of the University of Minnesota
Pork Safety/Pre-Harvest	Use of naturally-occurring bacteriophage to reduce Salmonella in swine prior to harvest	05-193	Callaway, Todd R.	USDA, ARS, Southern Plains Area
Pork Safety/Pre-Harvest	Impacts of growth promoting antibiotics on growth performance, economics, and the development and persistence of antibiotic resistance in nursery and finishing pigs	05-195	Van Heugten, Eric	North Carolina State University
Pork Safety/Pre-Harvest	Quantitative evaluation of selective factors impacting the development, amplification, persistence and transfer of antimicrobial resistance elements within mixed populations of commensal and pathogenic gut bacteria.	05-198	Anderson, Robin C.	USDA, ARS, Southern Plains Area
Pork Safety/Pre-Harvest	Relationship between Antibiotics in Water and Rates of Antimicrobial Resistance Gene Transfer	05-206	Singer, Randall	Regents of the University of Minnesota
Pork Safety/Pre-Harvest	A Quality Assurance Program for Pre-Harvest Pathogen Reduction in Swine.	05-209	Funk, Julie	Ohio State University
Pork Safety/Pre-Harvest	Surveying Attitudes and Behaviors for the Take Care Swine Practitioner Project	05-212 B	Lassiter, Andrea L.	Organizational Effectiveness Research Group
Swine Health	A ligated bowel loop model to evaluate the pathogenesis of beta2 toxin-positive strains of C. perfringens type A in neonatal swine.	05-004	Yaeger, Michael	Iowa State University
Swine Health	Evaluation of diagnostic assays for Mycoplasma hyopneumoniae: Their potential role in eradication success	05-006	Thacker, Eileen	Iowa State University
Swine Health	Assessment of the infectivity of asymptomatic carriers, to understand the dynamics of Mycoplasma hyopneumoniae infection in reproductive herds	05-013	Pijoan, Carlos	Regents of the University of Minnesota
Swine Health	Expanding the immune toolkit for assessing pig health and improving swine disease and vaccine studies	05-015	Lunney, Joan K.	USDA, ARS, Beltsville Area
Swine Health	Development of a universal and differential serodiagnostic test for swine influenza virus	05-019	Yoon, Kyoung-Jin	Iowa State University
Swine Health	Investigating the pathogenicity of pestivirus or pesti-like viruses isolated from recent swine epidemics	05-023	Lager, Kelly M.	USDA, ARS, Midwest Area

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Swine Health - PRRS	The role of downtime in pathogen contamination of swine facilities	05-139	Amass, Sandra F.	Purdue University
Swine Health - PRRS	The Comparative T-cell Repertoire Response in PRRSV, SIV and PCV2 Infected Piglets	05-143	Butler, John E.	University of Iowa
Swine Health - PRRS	Evaluation of a novel anti-idiotypic vaccine against PRRS virus infection	05-144	Zimmerman, Jeffrey	Iowa State University
Swine Health - PRRS	Investigation into the ability of the anti-idiotypic to block PRRS virus infection and characterization of a putative receptor on MARC-145 cells and porcine alveolar macrophages	05-145	Zimmerman, Jeffrey	Iowa State University
Swine Health - PRRS	An improved method for PRRSV surveillance and monitoring	05-146	Zimmerman, Jeffrey	Iowa State University
Swine Health - PRRS	Development of a New Generation of Antisense Antiviral Drug against PRRSV	05-151	Zhang, Yan-Jin	University of Maryland
Swine Health - PRRS	Accurate ELISA test development: Evaluation of cysteine protease domains of PRRSV non-structural protein 2 as a potential diagnostic target	05-155	Fang, Ying	South Dakota State University
Swine Health - PRRS	Prevention of PRRS by antibody administration	05-157	Harris, D.L. Hank	Iowa State University
Swine Health - PRRS	Rational Design of a New Generation of PRRSV Differential (Marker) Vaccines (Second Year)	05-159	Osorio, F. A.	University of Nebraska Board of Regents
Swine Health - PRRS	Implementation of a PRRSV Strain Database (Renewal)	05-162	Faaberg, Kay S.	Regents of the University of Minnesota
Swine Health - PRRS	Development of cost-efficient herd testing protocols based on testing of pooled samples using ELISA	05-163	Munoz-Zanzi, Claudia	Regents of the University of Minnesota
Swine Health - PRRS	Mechanisms of failed protection against PRRS in sow herds	05-166	Murtaugh, Michael P.	Regents of the University of Minnesota
Swine Health - PRRS	Development and Optimization of a Blocking PRRS ELISA for Type I and Type II Strains of Porcine Reproductive and Respiratory Syndrome Virus	05-168	Chase, Christopher	Rural Technologies, Inc.
Swine Health - PRRS	B cell diversification and class switch in PRRS.	05-174	Butler, John E.	University of Iowa
Swine Health - PRRS	Elimination of PRRS virus from two regions in Minnesota	05-182	Morrison, Robert B.	Regents of the University of Minnesota
Swine Health - PRRS	Identification of the viral protein that mediates PRRSV attachment to the sialoadhesin receptor on primary macrophages, and determination of the minimal epitope on this protein needed for receptor interaction.	05-191	Delputte, Peter	Laboratory of Virology, Department Virology, Parasitology and Immunology, Ghent University
Swine Health - PRRS	Enhancement of efficacy of PRRSV vaccines by altering the glycosylation pattern of viral glycoproteins.	05-194	Pattnaik, Asit	University of Nebraska Board of Regents
Swine Health - PRRS	A study on the feasibility of using a porcine alveolar macrophage cell line to produce a PRRS modified live virus vaccine	05-200	Zuckermann, Federico A.	University of Illinois
Swine Health - PRRS	Physical Characterization of the PRRSV Virion	05-202	Murtaugh, Michael P.	Regents of the University of Minnesota
Swine Health - PRRS	Developing a Broadly Protective vaccine against PRRS	05-205	Tobin, Gregory	Biological Mimetics, Inc.