

NATIONAL PORK BOARD
Summer Request for Proposals - 2009

DEADLINE: Tuesday, July 7, 2009 – 5:00 p.m. CST

The National Pork Board is soliciting research proposals dealing with:

B – Swine Health - PRRS

F – Pork Quality

Please read carefully the individual solicitation descriptions for project proposals. If you have questions related directly to the description of a specific solicitation, contact the staff member listed in charge of the program area. For questions on the submission process, contact Bev Everitt at beveritt@pork.org or 515/223-2750.

STAFF MEMBERS:

Swine Health	Lisa Becton	lbecton@pork.org	515/223-2791
Pork Quality	Mark Boggess	mboggess@pork.org	515/223-2606

To be considered for committee review, **all proposals must be submitted via the website by 5:00 p.m. CST on Tuesday, July 7, 2009** (see www.pork.org for links). Proposals will be reviewed by both technical advisors and pork producers prior to the committee selection meetings. Final funding is subject to approval by the National Pork Board and USDA.

NOTES:

Proposal selection will occur in late August 2009.

Notification of grant awards will be done in late-September 2009.

Project funding will begin November 1st, 2009.

Requests for second-year funding must be resubmitted.

B. SWINE HEALTH-PRRS

Since its discovery in 1991, Porcine Reproductive and Respiratory Syndrome virus (PRRSv) has proven itself as a significant pathogen of swine in nearly all production areas of the world. While a great deal has been learned about the virus and the disease it causes over the years since its discovery, producers and veterinarians still find themselves challenged in finding predictably successful tools for managing or eliminating the virus from farms.

The National Pork Board's Swine Health Committee has been discussing the research results received through the PRRS Initiative funding. Based on the research results, field experiences and continued collaboration and input from the PRRS CAP and additional industry stakeholders, the research objectives for the 2009 PRRS Initiative will focus on Immunology, Epidemiology/Ecology and Diagnostic capabilities and utilization.

1. PRRSv Immunology

- Identify common protective epitope(s) ultimately leading to a more efficacious vaccine providing cross-protection
- Characterize of the structural components of PRRSv that determine protective immunity
- Innovative vaccine development
- Evaluate and characterize the genetic properties of natural PRRS resistance/tolerance to infection
- Develop management recommendations based on immune response
 - Endemic Herd Infection
 - Acute Herd Infection
 - Replacement Stock

2. PRRSv Epidemiology and Ecology

- Investigate key routes of transmission
 - Methods to eliminate infective PRRSv in semen
 - Semen "sanitation" or "washing"
 - Transmission of PRRSv in aerosols
 - Potential spread of PRRSv during transport of pigs
 - Examine the risk of PRRSv positive pigs in transit transmitting virus to herds located near the route.
 - Study the use/necessity of filtered trucks in transporting PRRSv naive pigs.
- Understanding transmission
 - Investigate the role of finishing sites in serving as a source of infection or re-infection for the farm, system or area
 - PRRSv transmission within a farm – determine virus source for subclinical herds
 - Identification of risk factors for between farm transmission
 - Potential transmission of virus from infected meat products
- Alternate hosts/reservoirs of virus
 - Potential reservoirs not yet investigated
- Biosecurity

- Examine the potential for employees/equipment/supplies to provide an “escape” route for the virus to leave the farm during an outbreak
- Investigate if PRRSv can be harbored on the farm
- Identify mechanisms of area spread and develop suitable biosecurity protocols

-Surveillance

- Sequencing strains to aid in determining epidemiology in a region
- Integration of diagnostic lab databases to better understand PRRS epidemiology in real time
- Examine novel routes of PRRSv surveillance in both naïve and previously infected herds

3. PRRSv Diagnostics

-Development of tests to detect PRRSv in commercial herds and boar studs earlier and with increased sensitivity, specificity, and decreased cost to producers.

- Diagnostics for earlier detection at herd level
- Improvement of available diagnostic reagents
- Development of practitioner/producer based diagnostics Diagnostic techniques to detect infected semen on site

-Differentiation of exposed, vaccinated, and infected swine (DIVA)

-Test and modify PRRS risk assessment tools

-Develop tests that can differentiate NA and European strains vs. serology

Funds will be awarded for one year. Projects seeking second-year funding of a previously funded project requires submission of a fully-developed proposal that includes a demonstration of satisfactory progress on work proposed in the first year. Newly submitted multi-year proposals should provide a clear overall vision and objectives for the entire project with a detailed plan of work and budget for the first year. Further information regarding this solicitation can be directed to Lisa Becton by email at lbecton@pork.org or by phone at 515-223-2791.

F. **PORK QUALITY**

The National Pork Board Consumer Preference Study has identified pork product tenderness as a key component of consumer preference for fresh pork. Consequently, the National Pork Board Animal Science Committee is issuing a call for research to develop or implement technologies to improve the tenderness of fresh pork. Research proposals should focus on real time measurement of fresh pork tenderness in all stages of the pork production chain including the live animal and the intact carcass which will translate directly to improved tenderness of fresh pork in the retail marketplace and provide opportunities for increase live hog value to producers and create maximum value for fresh pork

No funding limits are set for individual proposals.