



The mission of the Center is to protect and enhance the health of the United States swine herd through coordinated global disease monitoring, targeted research investments that minimize the impact of future disease threats, and analysis of swine health data.

**Assessing the needs
Funding the projects
Answering the problems**

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What are we doing for the US pork industry?

2016 Plan of Action



Preparedness

- Diagnostic development — create the ability to detect high-priority Matrix viruses via PCR or other methods
- Fact sheets (www.swinehealth.org)
- Research — virus rate of inactivation using a shipping model for feed ingredient imports
- Disease entry risk assessment

Response

- Rapid response infrastructure plan
- Emerging disease research
- Diagnostic support for emerging disease discovery

Analysis

- VDL data standardization
- Swine health monitoring projects
- Swine health data epidemiology analysis projects

Monitoring

- Develop the network to monitor disease risks and analysis of swine health data
- International swine disease monitoring
- Disease/biosecurity risk assessment data mining
- Continual review of Swine Disease Matrix (see back)
- Research — feed ingredient monitoring

Swine Disease Matrix Project

Top Pathogens of Concern	Prioritized Risk Score
Foot and Mouth Disease (FMD)	8.42
Classical Swine Fever (CSF)	8.26
African Swine Fever (ASF)	7.83
Influenza A Virus	6.17
* Pseudorabies Virus - Pathogenic Chinese Strain	6.08
PRRS	5.95
* Nipah Virus	5.87
PRRS - Chinese High Pathogenic Strain	5.51
Porcine Epidemic Diarrhea Virus (PED)	5.31
Swine Vesicular Disease Virus	5.07
* Japanese Encephalitis	4.83
* Vesicular Stomatitis Virus	4.50
* Porcine Teschovirus (Teschén/PTV1)	4.27
* Ebola Virus - Restin	4.20
Porcine Circovirus	4.11
* Vesicular Exanthema of Swine Virus	3.96
Circovirus 3	3.95
* Porcine Rubulavirus (Blue Eye)	3.89
Transmissible Gastroenteritis (TGE)	3.88
* Seneca Valley Virus	3.88
Lassa Fever	3.87
* Menangle Virus	3.86
Porcine Deltacoronavirus	3.79
Porcine Rotavirus	3.60

This is a living document and will be updated, changed, or reprioritized regularly.

* These fact sheets are available on www.swinehealth.org. Other fact sheets are being completed.

Criteria for Average Risk Score

- 1) Likelihood of entry
- 2) Economic effects on production post entry
- 3) Effects on domestic and international markets

Progress Report



Communication/Collaboration

SHIC has formed working groups to help review and direct programs and research. Pork producers, practicing veterinarians, industry associations, animal health product companies, university researchers and USDA are all represented in the working groups. Because of our linked industries, SHIC also has engaged Canadian counterparts to help coordinate disease information and response with their domestic industry.

Global Disease Assessment

SHIC has conducted a survey of swine diseases and disease issues with the international network of a working group. Responses came from 13 foreign countries, including: Japan, Korea, Philippines, China, Poland, Ukraine, Russia, United Kingdom, Spain, Brazil, Chile, Columbia and Canada.

VDL Swine Test Standardization

SHIC has funded four veterinary diagnostic laboratories with the explicit purpose of standardizing the way that they report their testing results. This will improve the ability of the diagnostic labs to communicate test results and improve communication about the real-time status of U.S. disease trends and outbreaks.

Disease Risks Research

SHIC is funding a project that will help define disease introduction risks to the U.S. pork industry that come from importing feedstuffs and feed components.

Rapid Response Teams

SHIC is funding a project to help foster rapid onsite responses to disease outbreaks. Swine health experts who can be deployed on farms within 72 hours after a request will investigate potential introduction pathways and movements of the cause of the outbreak.

Diagnostic Fee Support

To help more producers and their veterinarians solve outbreaks with unknown causes, SHIC developed a system of support to help offset diagnostic fees after the initial diagnostics are completed. A novel virus that causes production losses from infecting the nervous system has been identified.

Swine Disease Matrix

SHIC is funding up to \$1 million worth of research that will help to detect new and emerging diseases. Twenty-nine research proposals from seven U.S. university and Canadian institutions and one private biotechnology firm are being considered for funding.

Seneca Valley Virus – Emerging Disease Response

SHIC responded to the emergence of Seneca Valley Virus in 2015 with \$270,000 worth of research to learn more about the virus and how to combat it on the farm. Fact sheets, recorded video webinars and research reports are available on www.swinehealth.org.

Read more detail on our 2016 accomplishments at
www.swinehealth.org.