## BIO-INSECURE?



he H1N1 virus, also called "swine flu", surprised humans around the world. This caused a fear of swine and for many, pork altogether. The amount of fear that was felt across the world was no surprise considering between 43 and 89 million hospitalizations were reported from April 2009 to April 2010, as a result of H1N1.

Although outbreaks of H1N1 virus concluded abruptly in 2010, a new threat lingers in our nations agricultural industry. Several northeastern states have reported outbreaks of H3N2 swine influenza within the last few months. This new variant of the

flu became apparent of the flu became apparent early last August, causing state and local fairs to inform attendees of the importance of biosecurity.

## "IF SWINE OBTAIN A FLU WHICH IS DRAMATICALLY DIFFERENT THAN HUMANS WE MAY NOT BE PROTECTED."

Tiffanie Brooks, a Texas Tech University Veterinarian and Animal Science instructor, believes efforts of prevention are important for both humans and swine.

"If swine obtain a flu which is dramatically different than humans, we may not be protected", Brooks said.

Although many states have reported cases of H3N2 virus, preventative measures are being taken across the globe to insure the virus is combated quickly and efficiently.

The H<sub>3</sub>N<sub>2</sub> virus is much like the H<sub>1</sub>N<sub>1</sub> virus of 2009 in that they both are categorized as Influenza A. Influenza A can be transmitted between humans, swine, and birds. Both H<sub>1</sub>N<sub>1</sub> and H<sub>3</sub>N<sub>2</sub> are considered "genetic reassortants" because the genetic makeups of these viruses contain traces of swine virus dating as far back as 1998.

Influenza A can easily be confused with seasonal flu. Humans and swine infected by these viruses have very similar symptoms. These symptoms included fever, sore throat, runny or stuffy nose, head and body aches, chills and fatigue.

Swine are considered a missing vessel for flu viruses. By coming in contact with infected individuals, swine become at risk of harboring a virus, which can easily be transmitted to human handlers, exhibitors or visitors of fairs and stock shows.

"If swine handlers are infected with seasonal flu, it is very possible swine can contract that flu," Brooks said.

The H<sub>3</sub>N<sub>2</sub> virus can be easily confused with the seasonal flu, although the origins of the viruses

are much different. Human flu can be spread to sine that then assort viral genes and create a new virus, which is hard to combat.

Vaccinating swine as well as swine handlers can eliminate the possibility of infection amongst large and small herds. Just as animal vaccinations provide protection against diseases, seasonal flu vaccines will eliminate risk of infection among humans.

Although preventative vaccinations limit the spread of infectious viruses, they do not eliminate the viruses altogether. It is very possible for viruses to infiltrate cautious operations even though biosecurity measures are taken. According to information made available by the National Pork board, biosecurity refers to all preventative measures taken in order to prevent infectious disease.

Swine operations can practice biosecurity by limiting human to swine contact and becoming more aware of the health of their swine and handlers alike. Handlers who have recently been exposed to seasonal flu should not be in contact with swine for seven days. Being removed form a swine operation could be difficult for recently infected handlers, so wearing a medical mask and the proper clothing is strongly encouraged.

Even healthy humans can threaten the health of your heard if they have been in contact with infectious swine within the last 48 hours. Washing your hands often when traveling between operations is a good habit when considering the ease at which viruses can be contracted.

"Swine producers take biosecurity very seriously", Cindy Cunningham, assistant vice president of communications with the National Pork Board said.

The National Pork Board provides information to inform the public that pork is safe although H3N2 is a current issue. Many different methods are used to provide information to those who need it. Social media, mailings, posters, flyers and web-obtainable information are all provided in order to reach respondents through many communication channels.

With show season quickly approaching, more information is becoming available for exhibitors of swine. In order to keep exhibitors, visitors and animal projects healthy, preventative measures have been taken within livestock show facilities. Hand washing stations and strategically placed flyers containing tipis for staying healthy are just a few precautions taken to prevent Influenza A.

Although the swine industry strives hard to ensure it provides a safe product, misconceptions relayed by media to the public have been an emerging issue in the past. "The media impact on H1N1 was dramatic for the pork industry," Cunningham said.

Media referred to H1N1 as the "swine flu" because it was easier to repeatedly say compared to its scientific name. Impact resulting from negative media coverage lasted almost four months, causing an estimated \$200 million in lost revenue for the swine industry.

Although the fear of an Influenza A outbreak lingers heavily on the swine industry, the word spread by the National Pork Board and swine commodity groups everywhere does not fall on deaf ears.

"Pork producers are early adaptors to technology, science and research that is available to them," Cunningham said.

Biosecurity has become a priority of pork producers nationwide, quickly adapting operational procedures to defeat the spread of harmful viruses like H3N2. With precautions being taken throughout the industry, there is hope that results will be much different than that of the H1N1 virus.

