

CWSHIN News #31

CWSHIN serves western swine producers, swine herd practitioners and governments to improve swine health, production, and the economic prosperity of the sector.

Our vision is to have a surveillance system imbedded in an intelligence network that monitors diseases both present and absent.

The surveillance system will be monitoring and assessing trends over time to:

- Detect new emerging swine health issues,
- Detect unusual clinical presentation of known diseases,
- Provide information about endemic diseases, and
- For diseases absent in western Canada (such as Foot and Mouth Disease and African Swine Fever) the objective is to help provide evidence of absence of disease to support trade.

In the intelligence network, we seek to exchange experience and knowledge on disease occurrence, treatment, control, and prevention.

<https://www.cwshin.ca/>

To swine practitioners engaged in CWSHIN

From time to time, we see changes in distribution of organisms, pathogens, and diseases. The change in distribution may be geographical, affected species, new organisms, or new strains of known organisms etc. When these changes are reported, we should ask if or how that may affect the swine sector? A recent example is Histoplasmosis in humans.

In March 2021, a study reported that the known range of the disease [***Histoplasmosis*** in humans] extends much further northwest from its traditional home in the central USA and parts of southern Ontario and Quebec ([The Lancet original article](#)).

Histoplasmosis is a serious infectious disease in humans caused by “*Histoplasma* spp. (Onygenales), whose natural reservoirs are thought to be soil enriched with bird and bat guano. The true global burden of histoplasmosis is underestimated and frequently the pulmonary manifestations are misdiagnosed as tuberculosis”. Mammals become infected after inhaling *Histoplasma* propagules from the environment.... The infection is also very common in wild (e.g., marsupials, rodents, armadillos, sloths, bats) and domestic animals (e.g., dogs and cats) in endemic areas. However, mammals appear to be dead-end hosts of *Histoplasma* since there is no person-to-person or animal-to-person spread ([Rodrigues et al 2020](#)).

ON HISTOPLASMOSIS - SHOULD WE BE CONCERNED FOR OUR SWINE POPULATION?

Our CWSHIN laboratory experts agree that theoretically pigs may be infected, but it is unlikely.

Dr. Detmer: Occasionally diagnosed this in cats and dogs postmortem while at the Minnesota VDL, but did not see it in the pigs. Risks for exposure would include rodents and birds in open barns with dirt floors and a bird or bat roosting place. It has shown up in horses in placentitis/abortion on the very rare occasion, but generally requires some immune compromise (e.g. AIDS in humans). Poultry farms with dirt floors are at higher risk. The spores can grow in bird poop and dirt mixture.

Dr. Huang: Agrees that while it is theoretically possible, it is unlikely that individual pigs can get infected; and it is highly unlikely that this will turn into a swine health or public health issue (infection is from the spores, not between mammal species).

Dr. Costa: Agrees that is more likely linked to poultry, as this organism likes a high nitrogen environment and manure pits are not a place where it grows well due to pH changes.