Swine TB or Mycobacterial Infection in Swine

Cooperative Extension South Dakota State University

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Swine TB
or
Mycobacterial Infection in Swine
Swine TB or Mycobacterial Infection in Swine

Prepared by the South Dakota Swine Health Committee in cooperation with South Dakota State University and Extension Service, the South Dakota Livestock Sanitary Board and South Dakota Pork Producers Council.

Tuberculosis in livestock is a communicable bacterial infection. There are three principal types of TB:

a. Mammalian or Human TB
b. Bovine or Cattle TB
c. Avian or Fowl TB

The avian type is the most common in swine. The type of TB lesions as observed in the tissue of a hog carcass cannot be distinguished from each other without an involved and lengthy laboratory procedure. Swine TB usually causes no recognizable symptoms in live hogs. They appear healthy. There is no evidence of swine TB causing human health problems.

What's the Problem?

Since February 14, 1972, a USDA Meat Inspection Division regulation has made it mandatory that when a hog is slaughtered and the meat inspection service determines that TB-like lesions are present in only two locations in the hog's system (usually in the jowl and intestinal glands), that carcass must be stamped "passed for cooking (PFC)."

Meat processors can use the product from that carcass only after the carcass is boned and the meat has been cooked for one half hour at 170°F. (77°C). The complete hog carcass is condemned if TB-like lesions are determined to exist in more than two locations in the hog's system.

Approximately one-half to two-thirds the value of a live hog is lost when the "PFC" carcass is cut, boned and cooked. Processors generally are standing the initial loss, but ultimately this overhead operating expense will be absorbed by all hog producers. The conservative loss estimate in South Dakota due to swine TB and the subsequent "PFC" or condemnation of whole carcasses or carcass parts is $500,000.00.

Information About Swine TB

Reported cases of swine TB are much more prevalent throughout the North Central states (which includes South Dakota) than in other parts of the United States. It is estimated that at least one of fifteen South Dakota swine farms have some level of swine TB, which may result as a "passed for cooking" or condemned product at the processing plant.

Older chickens, including bantams, guineas, pigeons, ducks, pheasants, etc., are suspected as a reservoir of infection for swine TB. Very young pigs are highly susceptible to infection by the TB organism. There is much to be learned about the prevalence of TB bacteria on the farm, carriers of the bacteria, its resistance to chemical treatment and avenues of infection.

What Can You Do?

In spite of limited information about swine TB, the following swine management practices are suggested to help reduce both the incidence and spread of swine TB.

1. Separate all domestic poultry from swine.
2. Eliminate wild birds from the hog buildings and pens.
3. Develop a practical, highly efficient swine management program.
   a. Work toward a production program of farrowing, growing and finishing hogs on cement floors in confinement or semi-confinement facilities.

Results of research indicate that soil contaminated by TB infected animals may remain sources of infection for at least 4 years. Therefore, if TB-free pigs are to be raised on an infected farm, complete confinement on concrete will probably be necessary.
b. Completely and thoroughly disinfect the farrowing house with an approved product several days prior to each farrowing period. Cresylic acid and phenolic disinfectants have been recommended.*

c. Do not use old poultry buildings for a farrowing area until they have been thoroughly cleaned and disin­fected. Do not use unless the building has a cement floor.

d. Follow approved procedures in cleaning facilities and disposing of dead poultry.

(1) Dead birds and offal should be burned—not fed to hogs or spread on a field.

(2) Poultry litter should be spread on fields which will not be used for swine pasture.

e. Keep records on feeder pigs and breeding stock brought onto your premises. In case TB is detected in hogs from your farm, the information may serve to trace the source of infection and subsequently assist in the reduction of the TB problem.

f. If you have been advised of TB in your hogs, keep a close check on following shipments. If the condition persists, seriously consider selling all hogs, providing disinfected concrete pens and repopulating with breeding stock from a hog farm that has not had a history of TB problems.

What is Being Done in S.D.?

1. Data are being collected by the Livestock Sanitary Board showing the prevalence and distribution of swine TB in South Dakota.

2. Personnel of the State Veterinarian's Field Staff are calling on hog producers where swine TB infection has been reported in hog shipments. The field veterinarian counsels the producer about the problem and recommends procedures for reducing further incidence of the disease.

3. The Animal Disease Research and Diagnostic Laboratory at SDSU is expanding research, as funds become available, to gain further information on swine TB in South Dakota.

4. South Dakota State University Extension personnel are aggressively pursuing an educational program to provide hog producers with information on swine TB in South Dakota in an effort to significantly reduce the problem.

* "Environ" - Vestal Laboratories, St. Louis, Mo.
The use of tradenames does not imply endorsement of one product over another.