

TUBERCULOSIS OF DOMESTIC DUCKS

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There are three types of tuberculosis organisms, one the human, one the bovine and one the avian. Tuberculosis caused by the avian form is prevalent in North Dakota chickens and swine. It is reported in the bacteriological literature that the avian tuberculosis organism infects all species of birds, including waterfowl. No reports of tuberculosis of domestic ducks from North Dakota were found in the literature, although Schalk, Roderick, Foust and Harshfield² had shown that sparrows and pigeons could act as carriers of avian tuberculosis. Later Harshfield, Roderick and Hawn³ showed that crows and sheep were both capable of actively transmitting avian tuberculosis to other species. In a later report from this laboratory⁴ the importance of avian tuberculosis to the poultry and swine industries was discussed.

This report concerns tuberculosis in ducks. On January 4, 1950, the viscera of a mature domestic duck was received from a western North Dakota town. In the letter accompanying the specimen the writer stated in part, "There were a couple ducks which had the same thing." The lesions were typical tubercles in the liver, spleen, mesentery and lungs. All of these yielded small "acid fast" staining organisms.

Since tuberculosis of ducks is rare, in order to identify the type of organism, chickens, a guinea pig and a rabbit were inoculated with suspensions of the bacteria obtained from the duck. On February 17, 1950, these animals were tested with both avian and mammalian tuberculin. The chickens and rabbit reacted to the avian tuberculin while the guinea pig failed to react to either. These tests show that the duck was infected with the avian type of tuberculosis.

On post mortem examination the chickens and rabbit showed typical tubercles containing "acid fast" organisms. The guinea pig showed no evidence of disease.

While the raising of ducks is not a major industry in North Dakota, tuberculosis of this species might seriously interfere with disease control of chickens, swine and sheep. In other words, the ducks could serve as a reservoir of tuberculosis infection for other types of animals and birds.

The same general plan is suggested for the control of tuberculosis in all types of birds and swine. Market all birds and swine before they are 18 months old. Clean and disinfect farrowing houses and brooder houses. Cull frequently and market all animals and birds that do not appear to be making satisfactory gains on the ration fed. The continuous feeding of "cull" animals is an uneconomical procedure.

Summary

A case of tuberculosis of a duck caused by *Mycobacterium tuberculosis* var. *avium* is reported.

The dangers of disease transmission from one species to another is discussed.

Bibliography

- ²Schalk, A. F., Roderick, Lee M., Foust, H. L. and Harshfield, G. S., 1935—Avian Tuberculosis, Collected Studies, North Dakota Agricultural Experiment Station Technical Bulletin 279.
³Harshfield, G. S., Roderick, Lee M. and Hawn, M. C., 1937—Avian Tuberculosis, Jour. Amer. Vet. Med. Assoc., Vol. XCI, N.S. 44, No. 3, pp. 323-329.
⁴Eveloth, D. F., 1948—Tuberculosis in Poultry and Swine, North Dakota Agricultural Experiment Station Bimonthly Bulletin, Vol. X, No. 4, pp. 133-136.

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