

BACTERIAL DISEASES

Erysipelas

Erysipelas is a bacterial disease caused by *Erysipelothrix insidiosa*. The disease affects several species of birds including chickens, ducks and geese, but the fowl in which it has been of primary importance is the turkey. Man is susceptible to infection and may contract the disease from infected turkeys. Since this organism is pathogenic for man, care should be taken when handling infected birds or tissues.

Erysipelas in turkeys occurs most often during the fall and winter months and usually affects birds that are four to seven months of age, although any age bird is susceptible. Incidence has often been reported to be higher in males than in females, possibly because fighting males receive numerous skin abrasions that serve as portals of entry for the bacteria. In some instances the incidence is higher in hens than toms because of artificial insemination techniques that provide a means of transmission.

The organism may survive for long periods in the soil and most outbreaks are thought to originate from contaminated soil or premises. Sheep, swine and rodents may be carriers of the disease organisms. Recurrence of the disease on a premise is common. Predisposing or aggravating factors include over-crowding damp or inclement weather and poor sanitation and range management.

The first indication of the disease may be the discovery of several dead birds. Usually several morbid birds can be found; however, most affected birds are visibly sick for only a short period before death. Symptoms are typical of a septicemic disease and include a general weakness, listlessness, lack of appetite and sometimes a yellowish or greenish diarrhea. Occasionally, the snood of toms may be turgid, swollen and purple. Some birds may be found lame with swollen leg joints due to localization of the infection. In breeding flocks, this disease occasionally is associated with decreased fertility and hatchability. Daily morbidity and mortality usually are low; however, in untreated flocks mortality may persist for some time and become excessive.

The most characteristic lesions are small or diffuse hemorrhages located in almost any tissue or organ. Such hemorrhages are commonly observed in the muscles, heart, liver, spleen, fat and other tissues of the body cavities. Hemorrhagic conditions of skin may result in purple blotches. The liver and spleen are usually enlarged, congested and occasionally

contain necrotic foci. Enteritis or inflammation of the intestinal tract is commonly observed, as in most septicemic diseases.

Symptoms and lesions may resemble other diseases so closely that a reliable diagnosis can be made only through isolation and identification of the causative organism.

Good management practices that aid in preventing erysipelas include avoiding the use of ranges previously occupied by swine, sheep or turkeys where erysipelas is known to have existed. Debeaking, removal of the snoods of toms, measures that prevent injury from fighting, avoiding overcrowding and providing well drained ranges will aid in preventing this disease problem.

Bacterins are available and are useful on premises where history indicates that outbreaks may be a problem. The amount and duration of protection is relative to the amount of exposure and may not be sufficient for the entire laying period. Administer bacterins in accordance with the manufacturer's directions.

Move sick birds to a hospital pen for individual treatment and to prevent cannibalism. Moving unaffected birds to a clean range may aid in preventing the spread of the disease but may also contaminate an additional range.

Various antibiotics have shown efficacy in treating erysipelas; however, penicillin is best. Penicillin injections in the leg or breast muscles of visibly sick birds is effective in decreasing mortality. One injection is usually sufficient, but more may be given if necessary. Water and feed medication may be of value under certain conditions.
