

# Avian Pox

Avian pox is a relatively slow-spreading viral disease in birds, characterized by wart-like nodules on the skin and diphtheritic necrotic membranes lining the mouth and upper respiratory system. It has been present in birds since the earliest history. Mortality is not usually significant unless the respiratory involvement is marked. The disease may occur in any age of bird, at any time.

Avian pox is caused by a virus of which there are at least three different strains or types; fowl pox virus, pigeon pox virus and canary pox virus. Although some workers include turkey pox virus as a distinct strain, many feel that is identical to fowl pox virus.

Each virus strain is infective for a number of species of birds. Natural occurring pox in chickens, turkeys and other domestic fowl is considered to be caused by fowl pox virus.

Fowl pox can be transmitted by direct or indirect contact. The virus is highly resistant in dried scabs and under certain conditions may survive for months on contaminated premises. The disease may be transmitted by a number of species of mosquitoes. Mosquitoes can harbor infective virus for a month or more after feeding on affected birds. After the infection is introduced, it spreads within the flock by mosquitoes as well as direct and indirect contact. Recovered birds do not remain carriers.

Since fowl pox usually spreads slowly, a flock may be affected for several months. The course of the disease in the individual bird takes three to five weeks. Affected young birds are retarded in growth. Laying birds experience a drop in egg production. Birds of all ages that have oral or respiratory system involvement have difficulty eating and breathing. The disease manifests itself in one or two ways, cutaneous pox (dry form) or diphtheritic pox (wet form).

Dry pox starts as small whitish foci that develop into wart-like nodules. The nodules eventually are sloughed and scab formation precedes final healing. Lesions are most commonly seen on the featherless parts of the body (comb, wattles, ear lobes, eyes, and sometimes the feet).

Wet pox is associated with the oral cavity and the upper respiratory tract, particularly the larynx and trachea. The lesions are diphtheritic in character and involve the mucous membranes to such a degree that when removed, an ulcerated or eroded area is left.

Fowl pox is readily diagnosed on the basis of flock history and presence of typical lesions. In some cases, laboratory diagnosis by tissue or transmission studies is necessary.

There is no treatment for fowl pox. Disease control is accomplished best by preventative vaccination since ordinary management and sanitation practices will not prevent it. Several kinds of vaccines are available and are effective if used properly.

Vaccination of broilers is not usually required unless the mosquito population is high or infections have occurred previously. The chicks may be vaccinated as young as one day of age by using the wing-web method and using a one needle applicator. All replacement chickens are vaccinated against fowl pox when the birds are six to ten weeks of age. One application of fowl pox vaccine results in permanent immunity.