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### CHICKEN POX

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Chicken pox (fowl pox) is an infectious disease characterized by the formation of nodules, scabs, or ulcer-like sores, principally on the unfeathered parts of the fowl. In some cases the lesions are found on the mucous membranes of the eyes, nostrils, mouth, throat, and windpipe and are characterized by the formation of a cheesy exudate. These conditions are commonly spoken of as canker, and avian diphtheria. When lesions predominate in the eye, nostril, mouth, throat, and windpipe a careful examination of a number of birds usually reveals the presence of skin lesions. Since these conditions are simply different manifestations of the same disease, they are treated as chicken pox.

*Cause.* A filterable virus has been shown to be the cause of chicken pox. The virus is found in the nodules and cheesy exudate and is quite resistant to drying and disinfectants. This disease is not caused by any agent except the virus.

*Symptoms.* Nodules appear on the comb, wattles, and other unfeathered parts. Feathered parts, also, may be affected. Cheesy patches are found in the eyes, nostrils, sinuses, mouth, throat, and windpipe. The nodules may be small or the condition may become generalized and involve large areas. Accumulation of material in the nostrils, sinuses, mouth or windpipe causes difficult breathing, and may result in suffocation.

In the mild forms of chicken pox the general appearance of the bird remains unchanged, the appetite is good, there may be

a slight decrease in egg production, and the mortality usually is low. In severe outbreaks the bird becomes droopy, loses its appetite, becomes emaciated, egg production ceases entirely, and the mortality is often very high.

*Prevention.* Poultry should be fed a balanced ration. The importance of green feed and clean water should not be forgotten. The houses should be dry, properly ventilated, and well lighted. Crowding the birds should be avoided. Ample roosting space should be provided. Houses should be cleaned at least once a week. Drinking utensils should be scalded with boiling water. The fowls should be kept free of lice and mites. The addition of medicinal agents to the drinking water as a routine procedure is not to be recommended. Frequent use of epsom salt is to be discouraged. New birds and returned show stock should be quarantined for two weeks before being placed with the flock. Shipping crates should not be used for fowls unless they have been cleaned and disinfected.

Dampness, drafts, insanitary surroundings and parasites favor the spread and severity of chicken pox but are not the cause of the disease. Healthy, vigorous birds kept in clean, dry, well-ventilated houses are quite as apt to contract chicken pox as are birds in poor condition or infested with parasites. However, once the disease is introduced into an unthrifty flock the infection will spread more rapidly, the disease will appear in a more severe form, the mortality will be higher and, if the birds are vaccinated, the results will be less favorable. It is generally believed that biting insects, such as mites, lice, and mosquitoes, may help to spread the infection.

*Preventive Vaccination.* Cutaneous chicken-pox vaccine is used for the prevention of the disease. This is sometimes called the follicle method of vaccination. A few feathers are plucked from the front part of the leg and the vaccine is rubbed in with a camel's-hair brush. Persons handling the vaccine should not handle the birds as they may infect other parts of the bird and a generalized case of chicken pox will result. Healthy birds, in good condition, free from coccidiosis and worms, and less than fourteen weeks old are the best subjects for vaccination. Vaccination of laying hens and pullets, with cutaneous chicken pox vaccine may cause a severe reaction resulting in a heavy loss in

egg production. Cutaneous chicken-pox vaccine is not recommended for use in flocks in which chicken pox has appeared.

*Treatment.* If only a few birds appear to have the disease, they should be killed and burned at once, unless they are very valuable and are worth isolation and individual treatment. Give a dose of epsom salt as soon as disease is noticed in the flock. The scabs and exudation on the skin and diseased membranes may be removed and the sores painted with tincture of iodine or treated with an ointment. Affected eyes should be cleaned and two drops of a 15% solution of argyrol placed in each eye and in each nostril. The houses should be cleaned daily. The use of disinfectants is not of much value and may cause the houses to become damp. Drinking utensils should be scalded each day. One of the chlorinated antiseptics, such as Zonite or B-K, may be used in the drinking water.

*Treatment by Vaccination.* Vaccination is the only satisfactory flock treatment for chicken pox and is highly effective, especially if it is used along with strict sanitary precautions. The results of vaccination of the flock already infected with chicken pox will depend upon the condition of the birds. If the birds are free of disease other than chicken pox the results will be far more satisfactory than where the birds are heavily parasitized and otherwise unhealthy.

Several products are on the market that are of use in diseased flocks. Mixed infection bacterin avian is one of the common names used for these products. Chicken pox vaccine made from bacteria isolated from the lesions of chicken pox, which also contains chicken pox scab, is, in our opinion, far more beneficial and safer to use in badly infected flocks. Chicken pox vaccines are now made by a number of veterinary biological laboratories in the country and may be obtained thru local veterinarians.

*Other conditions resembling chicken pox.* As a result of studies of various infections resembling chicken pox it has been observed that fowls may suffer from inflammatory changes of the eye, nose, and throat, producing symptoms and lesions that resemble true chicken pox in some or many respects.

Simple catarrh is a mild inflammation of the nasal passages.

Contagious catarrh, or roup, attacks the membranes of the eyes, sinuses, nostrils, and windpipe.

Nutritional roup is a disease of growing chicks resembling roup in appearance. This condition can be corrected by adding green feed, cod-liver oil, or egg yolks to the ration.

A specific infection of fowls known as infectious bronchitis resembles chicken pox in many of its manifestations, especially that type in which skin lesions are not easy to find.

It has often been demonstrated in outbreaks of chicken pox, where the typical skin lesions apparently are absent, that small lesions can be found on various parts of the body. But if careful examination of a number of affected birds does not show an eruption on any part, the inference is that the trouble is not chicken pox.