Fowl pox

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Fowl pox is a highly infectious disease of poultry which has been recognised for many years. It occurs in all poultry raising districts, but may be more prevalent in certain years. In Western Australia, it is customary to vaccinate commercial flocks and this practice has greatly reduced the incidence.

All breeds of fowls are susceptible but birds with large combs are more frequently affected hence White Leghorns usually suffer more than heavy breeds.

Birds of any age are susceptible. However, birds over one year are seldom affected, having acquired an immunity the previous year.

It occasionally occurs in very young chicks, mainly those which are very early (April or earlier) or late hatched and which are affected by the seasonal influences prior to vaccination.

SEASONAL OCCURRENCE
Most outbreaks occur in summer and early autumn, although cases may be seen at any time of the year. Probably the mosquito population is a major factor in the spread of the disease.

CAUSE AND TRANSMISSION
Fowl pox is caused by a virus. Dried virus in scabs and other infective material may live for a long time in litter. Healthy birds do not carry the disease after recovery.

The dried virus in pens and runs gives a reservoir of infection, but the rapid spread of disease from bird to bird in an outbreak is usually due to spread by mosquitoes.

Outbreaks frequently occur when pullets are transferred to laying pens; probably the reason is that one or two birds become infected from the litter in these pens, whereupon mosquitoes rapidly transmit infection from bird to bird. Lice and tick may also transmit the disease.

SYMPTOMS
Three clinical types of fowl pox occur, and in one outbreak all forms are usually seen:

Fig. 2.—Plucking a few feathers from the thigh of a bird before vaccinating.
Fig. 3.—Making the needle-stabs in vaccinating against fowl pox.

(a) Eruptive Type (warts). Small round, raised blood-blotter-like grey-coated spots appear on the combs, wattle, ear lobes and face. These spots soon dry into yellowish-brown scabs which may tend to enlarge and run together. Removal of the scab reveals a raw bleeding surface. Only a few of these spots may develop but in rare instances all unfeathered parts of the body are affected. Usually the more spots that are present, the more serious the attack. In more serious cases there is loss of appetite, drop in production and sometimes death.

(b) Diphtheritic Type (canker). This type of fowl pox affects the mucous membranes of the mouth and throat. Yellowish sores are formed in the mouth and the angle of the beak. The canker material is firmly attached and generally spreads until large portions of the tongue, mouth, throat and windpipe are affected. Affected birds lose weight and may die. Although recovery can take place, there is a long period of unthriftiness.

(c) Oculo-nasal Type (rops). This type of fowl pox affects principally the eyes. The eyelids become swollen and inflamed, and the eye is closed and protruding. A plug of yellow, cheesy material is present between the eyelids and overlying the eye. There is usually a discharge from the nostrils and mouth. Considerable loss of condition takes place.

PREVENTION BY VACCINATION

Fowl pox is controlled by a policy of vaccination between the 10th and 14th weeks of age. When several hatches of chickens are to be vaccinated, great care must be taken to ensure that there is no contact between chickens undergoing vaccination and younger unvaccinated groups of chickens. Various types of vaccine have been used and there are at least two reliable brands on the market. Vaccines on sale in Western Australia are sold subject to approval by the Chief Veterinary Officer and registration under the Veterinary Medicines Act.

Technique.

A two-pronged needle is used. This is dipped into the vaccine and two separate stabs into the skin are made in apart. The inoculation is made into the web of the wing, the skin on the outside of the thigh, or the fold of skin at the back of the thigh. The feathers are plucked out at the site of vaccination, prior to making the needle-stabs.

Reaction to Vaccination.

(a) Local. A pox lesion develops at the site of vaccination, usually first appearing between the 5th and 8th days. A scab forms and persists for three to four weeks after vaccination. There may be lameness where the reaction is severe.

(b) General. On from the 16th to 20th day after vaccination, birds show signs of dullness and loss of appetite. Normally these symptoms persist for only one or two days.

Vaccine “Takes.”

The efficiency of any vaccination programme depends on getting a very high percentage of “takes.” A percentage of the flock should be examined between the 12th and 14th days after vaccination. A “take” is a definite scab formation at the site of vaccination.

If over 95 per cent of the birds show good “takes” vaccination is satisfactory, but birds showing feeble or no reactions should be re-vaccinated.

A poor “take” may be due to:

(a) the fact that the birds have acquired immunity by prior infection,
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There is no specific remedy which can be used to cure fowl pox. All treatment is aimed to alleviate the severity of the disease. In the eruption type the scabs may be removed and the raw areas treated with a 10 per cent carbolic ointment. Alternatively, painting the head with tincture of iodine is beneficial. Care should be taken that the iodine does not get into the eyes. The carbolic ointment has the advantage of repelling mosquitoes.

In the canker type the canker material should be removed from the mouth with a match stick or hairpin and the affected areas painted with tincture of iodine.

In the roup type the cheesy plug can be squeezed out of the eye quite easily. The eyes should then be treated with one drop of 10 per cent. Argyrol daily.

The nostrils can be cleaned by syringing with a few drops of hydrogen peroxide—10 volumes.

When undertaking treatment of affected birds, they should always be isolated from the rest of the flock.

**SUMMARY**

1. Fowl pox is an infectious disease of fowls, being most serious in young birds and occurring mainly in summer and early autumn.
2. Symptoms are of three types:
   (a) Scabs on combs and wattle.
   (b) Canker affecting mouth.
   (c) Roup affecting eyes.
3. Control is effected by a policy of vaccination of all birds at 10-14 weeks of age.
4. Proper precautions are necessary in vaccination, and birds must be examined for “takes” at 12-14 days.
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