

Fowl Pox Vaccination

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Winter Worry. Prevent It Now!

Last winter, many areas in Ohio were seriously affected by outbreaks of fowl pox. The disease usually makes its appearance in laying flocks in the late fall and winter. It is seldom serious in warm weather and is rarely seen in growing pullets on range. It appears in many cases when egg prices are best and when poultrymen are trying to secure high egg production.

Turkeys are susceptible to the disease. Heavy losses frequently result from outbreaks among late market turkeys and breeding flocks.

Fowl pox can be prevented by vaccination. Treatment is not effective. It is too late to do much about the disease once it becomes well established in a flock.

The Disease Spreads Rapidly.

Fowl pox is highly infectious. It spreads rapidly from bird to bird and once it appears on a farm it is difficult to confine it to any one pen or house. In the same manner, it tends to spread from farm to farm and from one community to another until large areas become affected before the winter is over.

The disease is caused by a virus which gains admission through breaks in the skin. Wild birds are carriers. Pigeons are highly susceptible and suffer from the disease in much the same manner as do chickens. Mosquitoes and other insects are known carriers. It is easily carried on clothing,



Fowl pox produces scab-like nodules on face, comb, and wattles, and often cankers in the eyes and throat.

on chicken crates, and other equipment. The virus is not easily destroyed by drying but is readily killed by direct exposure to strong sunlight.

Fowl Pox is Easily Recognized.

The symptoms of the disease are generally quite characteristic and it should not be difficult to identify it. It is known by other names such as diphtheria, sore head, canker, and contagious epithelioma. The most characteristic symptoms are the nodules which appear on the comb, face and wattles. These may vary in size from that of a grain of wheat to as large as a hickory nut. These first appear as small blisterlike spots ranging in color from yellowish to dark brown or grayish black. They are raised above the surface of the skin and resemble warts. See illustration on page 1.

The eyes are frequently involved. At first the eyes water, and later may become filled with a cheesy canker which adheres to the tissue and frequently destroys the eyes.

The most fatal form of the disease is the canker which forms on the mucous lining of the mouth and throat. These cankers have a cheesy appearance and frequently cause suffocation.

Colds or roup frequently accompany fowl pox. In many cases a watery discharge from the eyes and nose will be evident.

Losses from fowl pox may vary from a slight to a very heavy mortality. The greatest loss is usually in egg production. In many outbreaks, the disease persists from 6 weeks to all winter. It is seldom possible to get egg production back to normal in less than 6 weeks after the outbreak occurs.

Vaccination Prevents the Disease.

Immunity to the disease results from a natural outbreak or it can be established by the use of a live virus vaccine. Two types of vaccine are in common use. Each has its merits and its disadvantages:

1. *Fowl Pox Virus Vaccine* (chicken strain).—This vaccine is made from scabs collected from the combs of healthy birds which have been inoculated with the virus or by growing it on egg embryos. A successful "take" from this vaccination produces life-long immunity. The reaction following the vaccination may be quite severe. Therefore, this vaccine is recommended only for birds in excellent health. It is not recommended for birds in production. Vaccination with this virus is usually done when the pullets are from 6 to 15 weeks of age. Vaccination has been successfully done earlier in life, but in general these age limits are most satisfactory. Vaccination delayed *beyond* the age of 15 weeks often results in a serious setback.

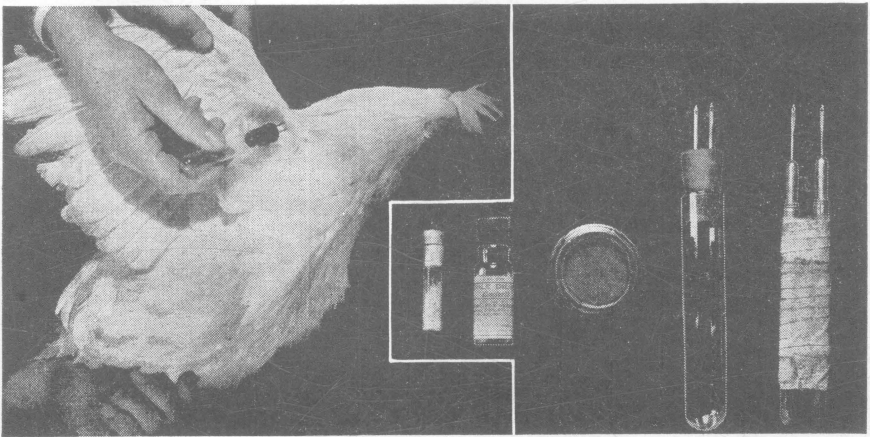
2. *Pigeon Pox Virus Vaccine* (pigeon strain).—Pigeon pox vaccine is made from scabs collected from the breasts of pigeons which have been inoculated. This vaccine produces a mild reaction and a limited immunity. Because of the mild reaction, this type of vaccine is used on birds in production. It is recommended for flocks where the disease is just breaking out, or where a nearby outbreak makes vaccination advisable after the birds are beyond the age limits suggested for vaccination with fowl pox virus.

Some poultrymen rely on pigeon pox vaccine alone. In this case the pullets are vaccinated at housing time.

Methods of Applying the Vaccine.

Fowl pox vaccine (chicken strain) is most easily and rapidly administered by the "stab" method in the web of the wing. Specially designed needles for this purpose are available, although a very satisfactory device can be made from a sewing machine needle mounted in a handle or in the stopper of a bottle. The bottle in this case serves as a handle for the instrument. The reason for using a sewing machine needle is because the eye of the needle is in the sharp end. The eye will carry enough vaccine to inoculate the punctured skin.

Two punctures are usually made. For convenience two needles may be mounted about $\frac{1}{2}$ inch apart. An assistant holds the bird, turning the wing up to expose the under side of the web. The needle is immersed in the vaccine and the wet needle is forced completely through the web.



Pullets from 6 to 15 weeks are usually vaccinated in the web of the wing with fowl pox vaccine (chicken strain).

Pigeon pox vaccine (pigeon strain) is applied by the "feather follicle" method. In this case, 8 to 12 feathers are removed from the side of the leg and the vaccine applied to the open follicles by means of a stiff brush. This method is sometimes used with chicken pox virus. It is slower and requires more vaccine than the stab method but is more positive in the case of pigeon pox vaccine, which is milder in its reaction.

Checking Vaccinated Birds for "Takes."

Ten days following vaccination, at least 10 per cent and preferably more of the birds should be examined for "takes." A small swelling and light scab formation will appear at the point of inoculation, if the vaccination has been successful. If there is no reaction, the bird was immune, the vaccine was impotent or too dilute, or the method of application was at fault.

In the case of young birds which have not been exposed to fowl pox, immunity is unlikely, and a new lot of vaccine should be secured and the birds again vaccinated if takes are not apparent.

Cautions in Vaccination.

1. Vaccination is recommended only on farms where the disease was present last year and hens held over or in areas where the disease is prevalent.
2. Growing pullet flocks should only be vaccinated if they are healthy, vigorous, and not showing any evidence of coccidiosis, worms, or paralysis.
3. Vaccinate growing pullet flocks when they are from 6 to 15 weeks of age, using chicken strain vaccine.
4. If the disease breaks out in laying flocks, vaccinate immediately, using pigeon strain vaccine. Every day's delay means more spread of infection.
5. Vaccines are made from the live virus and are capable of producing the disease. They must be used with *great* caution.
 - a. Burn all unused vaccine.
 - b. Do not spill it on floors or equipment.
 - c. Do not apply it to the bird at any point except the point of vaccination.
 - d. Do not expose the vaccine for long periods to direct sunshine.
 - e. Follow the manufacturers' directions carefully when preparing and using the vaccine.
6. Your local veterinarian is familiar with vaccination methods and techniques. Consult him about the problem on your farm.



The feather follicle method is used for fall and winter vaccination with pigeon strain vaccine.