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# **VACCINATION OF POULTRY**

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## **Vaccination of Poultry**

by R. E. Black, W. B. Ardrey, and C. F. Petersen

## **Need for Vaccination**

Idaho poultry producers should follow a regular vaccination program to reduce disease losses. Vaccines should be used to protect against the following diseases where they are known to exist: (1) Newcastle disease, (2) infectious bronchitis, (3) fowl pox, (4) fowl cholera and (5) epidemic tremor.

The specific program you should follow will depend on the diseases common to your area. Your county agent, chick supplier, veterinarian or feed dealer can advise you on what protection you need to provide.

Remember, a vaccination program is not a substitute for good management. It is a tool which supplements good management.

### **Vaccination Time**

Start when the chicks are a week old. Vaccinating chicks during the first week does not stimulate maximum immunity against these diseases if the parent stock has been vaccinated or experienced an outbreak. These chicks carry passive immunity to infectious bronchitis, Newcastle disease and epidemic tremor for a period of 7 to 10 days after hatching.

Vaccination always causes stress on the birds. Stress, in turn, can cause such conditions as C.R.D. (Mycoplasma gallinarum) to become a very serious problem. Although combination vaccines are available, it is recommended treatments be given separately except for booster vaccinations. Allow several days between the administration of vaccines to reduce stress on the birds.

## **Vaccination Methods**

### **Individual Bird Treatments**

- Injections (Fowl cholera, Newcastle disease)
- Intranasal (Newcastle disease, bronchitis)
- Intraocular (Newcastle disease, bronchitis)
- Wing web (Fowl pox, Newcastle disease)

#### **Flock Treatment**

- Water (Newcastle disease, bronchitis, epidemic tremors)
- Spray (Newcastle disease, bronchitis)
- Dust (Newcastle disease, bronchitis)

If you treat the bird individually, you know that each bird has received the proper amount of vaccine. The disadvantage of this method is the added stress on the birds. It may create additional problems and requires more labor. Mass or flock vaccination is easier, but some birds may receive no vaccine. Others will not get enough. Revaccination is therefore more important.

Special attention is needed when vaccine is used in the drinking water. To assure that all birds obtain some vaccine, remove the water supply for a period of time so that birds are thirsty. If the birds are on range, select a warm day to encourage water consumption. Use enough water for a 3 to 4 hour period. Follow mixing instructions in detail and use clean equipment. The water supply should not contain chlorine or other disinfectants.

## **Precautions to Observe**

Vaccines, except for the killed-type, contain living viruses intended to cause a mild form of the disease. The birds then develop immunity to field strains of the viruses. The reaction will generally be mild if:

- 1. Birds are healthy.
- 2. The poultry house is clean and dry.
- 3. You make no sudden changes in management practices.
- 4. You maintain proper brooder temperature. (Temperature may be raised 3 to 5 degrees for a few days after vaccination.)
- 5. You follow vaccine manufacturer's recommendations carefully.
- 6. You obtain booster vaccines from the same manufacturer as the original.

Immunity is not always permanent for infectious bronchitis, Newcastle disease and epidemic tremor. As birds mature or continue in heavy egg production, immunity tends to "run out." Therefore, you may have to repeat or give booster vaccinations. This is especially true when the vaccine is water-administered.

# **Vaccination Schedule**

Recommended by University of Idaho Extension Service

Age of Birds	Type of Bird (Replacement pullet or broiler)	Disease	Method	Vaccination Record for Flock No.:							
				#1 Date	<sup>‡2</sup> Date	#3 Date	<sup>#4</sup> Date	<sup>‡5</sup> Date	#6 Date	‡7 Date	
7 - 10 days	Replacement pullet and broilers	Infectious bronchitis	Drinking water, intra- nasal or intraocular								
17 - 21 days	Replacement pullet and broilers	Newcastle disease	Drinking water, intra- nasal or intraocular								
8 - 10 weeks	Replacement pullet	Fowl pox	Wing web								
12 - 14 weeks	Replacement pullet	Fowl cholera	Injection under skin of neck								
14 weeks	Replacement pullet	Epidemic tremor*	Drinking water								
16 weeks	Replacement pullet	Infectious bronchitis	Drinking water								
18 weeks	Replacement pullet	Newcastle**	Drinking water or wing web**								
			C.R.D. and Wor	m Contr	ol						
28 days	Broilers	Bacitracin, Tylosin or other acceptable drug for C.R.D. control									
32 days - 16 weeks	Broilers and replacement pullet	Piperzine in water or Hygromix in feed for worm control									

Use a coccidiostat first 8 - 9 weeks in feed.

Use a potentiated feed first 3 days and 3 days following each vaccination, 100-200 gm./ton.

Use a dewormer in feed or water as recommended by manufacturer prior to egg production or as needed.

\*Applies to chicks for breeder flocks.

\*\*Booster every 3 months during egg production recommended if wing web is not used. Wing web at 18 weeks gives immunity for 1 year.

### The Authors

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