
EXPERIMENT 6 COMMON MEDICINES FOR PREVENTION AND TREATMENT OF POULTRY DISEASES

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6.1 INTRODUCTION

The profitability of a poultry farm depends upon the survivability and productivity of the birds. Diseases due to infection or nutrition or management are the major obstacles in the success of poultry farming. 'Prevention is always better than cure' is the basis for control of all diseases. A fair idea about commonly used medicines, their indications, and contraindications is always useful in prevention and treatment of various diseases.

Objective

After performing this experiment, you will be able to:

- select different medicines for prevention and treatment of poultry diseases depending on their indications and contraindications.

6.2 EXPERIMENT

6.2.1 Principle

Treatment of birds with proper dose of suitable medicine is essential for preventing disease or treating it, if it occurs. This is the effective method for avoiding economic losses. Several pharmaceutical companies produce the same medicine/supplement. Hence, it is not possible to recommend one over the other. The farmer has to consult the local veterinary/poultry specialist for such details. Therefore, only those medicines which are commonly used in most poultry farms are listed and described and none of these are mandatory to be used without consulting a veterinarian.

6.2.2 Requirements

- A flock with clinical outbreak of a disease.
- Antibiotics, anti-coccidials, anti-diarrhoeals, anti-mycoplasma and anti-stress drugs

6.2.3 Procedure

Unlike large animals, the poultry are not generally treated individually. Most of the medications and vaccinations are on a mass scale. Water is the common route used to administer medications including vaccination. Some of the vaccines which are generally applied individually like LaSota, Infectious Bronchitis (IB) and Infectious Bursal Disease (IBD or Gumboro) vaccines are also being administered in the form of spray to avoid individual handling of birds which is likely to increase stress. Medication through water therefore will be dealt as a separate experiment.

General steps involved before selection of medicine to be used are as follows:

- 1) Identify a sick bird (refer Experiment 1 for details) and separate it from the flock.
- 2) List the clinical signs or symptoms you notice in your flock.
- 3) Make a tentative diagnosis and if feasible, obtain final diagnosis; consult a veterinarian/poultry specialist.
- 4) Select a suitable medicine with the help of veterinarian/poultry specialist. If infection is suspected, suitable medicine (anti-bacterial/anti-fungal/anti-mycoplasma) or if it is suspected to be due to nutritional cause, vitamin/mineral supplement has to be selected.
- 5) The medicines (Table 6.1) must be given at the proper dosage and in the prescribed schedule; all medicine containers indicate the details of composition, dosage, schedule and precautions; the manufacturer's recommendations have to be strictly followed.
- 6) Never attempt "hit and try" method, while using medicines for your farm birds as they may harm or even kill them.
- 7) Always keep harmful medicines at a secured and known place in the farm.
- 8) Proper storage conditions for medicines as prescribed by the manufacturer should be maintained; otherwise the activity of the medicine will be lost.

Table 6.1: Common Medicines, Their Composition, Indications, Doses and Route of Administration

Composition	Indications	Administration and Dose
Anti-bacterials (Antibiotics)		
Ampicillin	<i>E. coli</i> , Salmonellosis, Staphylococcus infection	12.5 mg/litre of water
Cephalexin Powder 7.5% w/w	Colibacillosis, Chronic Respiratory Disease (CRD), <i>E. Coli</i> , Fowl Cholera, Infectious Coryza, Pullorum Disease	10 mg/kg body weight in water
Chloramphenicol IP 20% w/w	Colibacillosis, CRD, Dermatitis, Fowl Cholera, Pullorum Disease, Salmonellosis	1g in 10 litres of water for 3-5 days
Chlortetracycline	Colibacillosis, Salmonellosis	25g/185 litres of water

Ciprofloxacin Hydrochloride 10% w/w	CRD, Fowl Cholera, Infectious Coryza, Omphalitis, Salmonellosis	1 g/litre of water
Enrofloxacin 10% w/w	CRD, Infectious Coryza, Fowl Cholera, Omphalitis, Salmonellosis	2 mg/kg body weight
Furazolidone	<i>E. coli</i> , Fowl Typhoid, Pullorum Disease, Salmonellosis	2 g/kg feed for 10 days
Neomycin Sulphate	<i>E. coli</i> , CRD, Infectious Coryza, Fowl Cholera, Pullorum Disease, Salmonellosis	1 g in 10 litres of water for 3-5 days
Sulphadiazine and Trimethoprim (5:1) w/w	CRD, Infectious Coryza, Fowl Cholera, Omphalitis, Salmonellosis	0.5 to 1 g/litre of water for 3-10 days
Anti-coccidials		
Amprolium soluble powder 20 % w/w	Prevention and treatment of all types of coccidiosis	1g/ litre water
Nitrofurazone 25% and Furazolidone 3.6% w/w	Prevention and treatment of all types of coccidiosis	500 mg/kg feed
Sulphachlorpyrazine sodium	Prevention and control of intestinal and caecal coccidiosis	1g/litre of water
Anti-diarrhoeals		
Extract of standardized herbs	To control loose droppings and parasitic infections	2.5 g/kg feed
Polyherbal formulation	To control loose droppings and parasitic infections	1.3 g/kg feed
Anti-mycoplasma drugs		
Tiamulin hydrogen fumarate	To prevent and control Chronic Respiratory Disease (CRD)	24 mg/kg body weight
Tylosin tartarate	To prevent and control CRD	176 mg/kg body weight
Anti-stress drugs		
Vitamin A, D ₃ , E and C	As an anti-stress agent during shifting, handling, debeaking, vaccination etc.	3-5 ml/100 birds
All B-complex vitamins with Methionine	As an anti-stress agent during hifting, handling, debeaking, vaccination, for prevent of B-complex deficiency	15-20 ml/100 birds.
Deworming drugs		
Albendazole	Roundworms, tapeworms, flukes and other intestinal worms	20-30 ml per 100 birds in water
Mebendazole	Tapeworm	500 mg/kg feed

6.2.4 Observations

- i) Point out the signs/symptoms you noticed in the flock.

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- ii) Count the birds showing signs of ill-health.

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6.2.5 Results

Based on the symptoms/sign shown by the sick bird, the disease could be and the drug recommended is

6.3 PRECAUTIONS

- Do not medicate the birds unnecessarily; this includes administration of vitamins which are expensive and when used without indication, cause economic loss.
- Under-dosing or overdosing of medicines especially antibiotics is harmful and must be avoided.
- Never give B-complex group of vitamins during the outbreak of Coccidiosis, otherwise there will be more mortality.
- If sick birds are housed separately, they have to be medicated with the dose as prescribed by the manufacturer.
- Sick birds must be handled preferably by a separate attendant; if not possible, they have to be handled after completing work with healthy birds. Under no circumstance attendants from a sick pen should be allowed to enter pens with healthy birds.
- Proper hygiene of your body parts, dresses etc., should be maintained.
- Always keep a proper record of medicines given or to be given per pen or per house.