
EXPERIMENT 1 IDENTIFICATION OF HEALTHY AND SICK BIRDS

Structure

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1.1 INTRODUCTION

In poultry farming, flock health is the most important aspect for success of the enterprise. If one or few birds are sick and not identified early, there is all danger for disease spreading within the flock (group of birds) when the disease is caused by microorganisms (bacteria/virus/parasites/protozoa in case of infectious diseases). Therefore, it is essential for a poultry farmer to distinguish sick birds from healthy ones. The development of this skill will help identify (diagnose) the disease early so that suitable prevention and control measures can be taken up and thereby reduce economic losses.

Objectives

After performing this experiment, you will be able to:

- identify signs of sickness; and
- assess disease-threat at right time to prevent and control different diseases.

1.2 EXPERIMENT

1.2.1 Principle

The word “Disease” means “not at ease” and obviously, a sick (diseased) bird shows some changes in its physical conditions which can be recognized by simply observing birds in a flock, in general, and the affected bird, in particular.

1.2.2 Requirements

- A flock with healthy and sick birds

1.2.3 Procedure

The procedure for inspecting a flock of birds has certain codes. The codes generally refer to the inspecting individual before he/she starts examining the flock. After proper codes are in place, the identification of sick bird involves a general observation of

the flock and individual handling of the bird suspected to be sick. Generally, poultry flock is observed at least twice a day; once in the morning and again in the evening. Every time the flock is observed, the following have to be strictly practiced.

(i) Codes

Inspecting person should:

- 1) wear preferably dress meant for the purpose - cleaned and disinfected; it is a good practice to have a disinfectant spray;
- 2) disinfect their footwear (chappals or gum boots) by dipping in the foot-bath (a shallow place in front of door containing water with dettol/phenyl/savlon) before entering into the building;
- 3) have gloves, mask and a cap; and
- 4) carry sterile vials, disposable syringe, catching hook, specimen bottle, polythene bags, slides etc., for collection of any material for further examination.
- 5) note the type, age and number of birds along with system of rearing.

(ii) General Observations

- 1) As soon as you enter in a poultry house, you should not feel irritation in the eyes or feel very uncomfortable due to temperature inside; especially excessive sweating.
- 2) Do not disturb the flock. Observe for birds seeking corners, looking dull, sleeping while standing and showing abnormal postures.
- 3) Give a gentle clap or whistle. In a healthy flock, all the birds show alert attention toward the sound. If it is feeding time, they show rapid movements towards feeders and make typical sound while expecting feed. Therefore, the best time to notice the changes is the feeding time.
- 4) Observe for the colour of the droppings. Abnormal colour of the droppings such as black, chalky white, green, red, yellowish white etc., are suggestive of different disease conditions.
- 5) Observe for the consistency of the droppings. Loose or dry consistency of the droppings indicates unhealthy or disease condition.
- 6) Observe for the posture of the birds. Abnormal postures such as backward movements, lameness (difficulty in walking), one leg forward and the other backward, paralysis, sitting on hock joints, twisting of neck, etc., suggests a disease problem. If any bird is unable to move and in your opinion it is not proper to leave the bird among others, remove it from the flock.
- 7) Listen for any abnormal sounds by the birds. Abnormal sounds like gurgling (broken, irregular, bubbling sound) or chirping (short, high-pitched sound, such as that made by a small bird or insect) sounds indicates unhealthy condition.
- 8) Look out for abnormal behaviour like cannibalism (eating other birds), pecking (fighting), etc.
- 9) If any dead bird is seen, collect in a polythene cover for post-mortem (after death) examination.
- 10) Observe for positioning of feeders and drinkers, especially the latter to check for spillage and wetting of litter. Also assess the floor, feeder and drinker space allocation.

- 11) Record any other observation which you consider abnormal; for instance, drinkers being dry, eggs lying on litter, egg shells seen on litter etc.

(iii) Individual Examination

- 1) Catch the sick bird (preferably by hand) by holding the wings gently; sick birds do not run away as fast as the healthy ones; if needed, use a catching hook. However, heavy birds like breeders are better caught by their wings.
- 2) Restrain the bird by holding both wings at the base, and observe different parts of the body for any abnormalities. Note that all the sick birds need not show all the following changes described in Table 1.1. Presence of even single sign is enough to classify it as “sick”. The differences between healthy and sick birds are given below:

Table 1.1: Conditions of Body Parts in Healthy and Sick Birds

Sl. No	Body Part	Normal Bird	Sick Bird
1	Head	Strong, flat on top, broad	Weak, long, narrow and swollen
2	Eyes	Bright, prominent and full	Shrunken (reduced size), small, watery discharge, sticky and bloody
3	Comb and Wattles	Fully extended, red, warm and glossy	Shrunken, dry, bluish, swollen with presence of growths (nodules)
4	Beak	Strong, yellowish, uniform in size	Abnormal beak like bent/twisted upper/lower beak
5	Nose	Dry, no growths (nodules)	Discharge and/or growths (nodules) around the nose
6	Mouth	Normal, no growths inside or at the corners of the mouth	Discharge, breathing with opened mouth and growths (nodules) in mouth
7	Feathers	Shiny, straight covering the body	Rough, raised and dry, loss of feathers with non-healing wound
8	Skin	Soft, pliable (flexible)	Rough and growths (nodules) on the skin, indications of bleeding below the skin
9	Neck	Straight, free to move and well set neck feathers	Paralysis, twisted with ruffled feathers. Not able to raise or always looking upwards or always kept under the breast region
10	Wings	Properly set to body and evenly arranged feathers	Hanging downward (drooping), paralyzed and unevenly arranged feathers
11	Legs	Straight, flat shanks, toes well spread, smooth scales	Twisted, swollen legs, rounded shanks, lameness, walking on hock, feet swollen and toes curled, one leg forward and another backward, unable to walk
12	Vent	Oval in laying bird. In others, moist and large	Round, small, dried, pasty vent, sometimes injured due to pecking

1.2.4 Observations

Note down the condition of the following parts of a bird examined by you.

- i) Head :
- ii) Eyes :

iii)	Comb and Wattles	:
iv)	Beak	:
v)	Nose	:
vi)	Mouth	:
vii)	Feathers	:
viii)	Skin	:
ix)	Neck	:
x)	Wings	:
xi)	Legs	:
xii)	Vent	:

1.2.5 Results

The bird examined by you is (healthy or sick).

1.3 PRECAUTIONS

- While moving inside the poultry house, see that birds are not crushed by you.
- Breeder males should be caught by wings and not by legs to avoid damage to legs which may make the bird useless for breeding.
- Handle the birds gently but thoroughly.
- Do not be afraid of birds, they will not hurt you.
- Always wash your hands after handling of birds.
- Follow the instructions given by the owner/supervisor of the poultry farm.