EXPERIMENT 3 CLEANING AND DISINFECTION OF POULTRY EQUIPMENTS

Structure

3.1 INTRODUCTION

Cleaning and disinfection of various poultry equipments are also very important along with cleaning and disinfection of poultry houses. This is because these equipments gets contaminated with microorganisms which may include disease causing ones during the use and can transmit these microorganisms to the healthy birds. Hence, cleaning and disinfection of equipment is absolutely essential as a routine operation.

Objectives

After performing this experiment, you will be able to:

- demonstrate the cleaning and disinfection of poultry equipments; and
- organize a routine for cleaning and disinfection of poultry equipments in a poultry farm.

3.2 EXPERIMENT

3.2.1 Principle

Cleaning and disinfection are very essential steps in maintaining the bio-security measures of the poultry farm as unclean equipments may act as carrier of microorganisms. All farm equipments including vaccinating equipment must be clean and disease-free, otherwise, there will be every possibility of disease spread and total loss of the flock and may ultimately destroy the farm.

3.2.2 Requirements

- Storage water tank
- Autoclave for disinfection of needles, vaccinators etc.
- Brooders, drinkers, egg filler flats, feeders and other equipments used in the farm
- Caustic soda, chlorine, detergent solutions, hydrochloric acid (HCl), iodine etc.

3.2.3 Procedure

The following steps are to be undertaken for sanitation and hygiene of poultry equipments:

1) Wash feeders and drinkers (Fig. 3.1 and 3.2) in running water, preferably under pressure.

2) Treat feeders and drinkers with mild hydrochloric acid (HCl) for a few minutes. Then, clean with plain water and sun dry them for a day or two.

3) Dip the feeder grills in caustic soda water for 12 hours.

Fig. 3.1: Hanging Feeder

Fig. 3.2: Drinker

4) Clean the electric brooders (Fig. 3.3) with wet cloth before and after use. If it is a canopy brooder (Fig. 3.4), it can be washed. Infra-red bulb brooders can be wiped with a wet

Fig. 3.3: Electric/Battery Brooder

Fig. 3.4: Canopy Brooder

5) Disinfect the over head water tanks with chlorine (see Experiment 7).

6) Drinking water pipe line may develop a microbial focus contaminating the water continuously. Flush the pipe line using chlorine or iodine. Usually, water is held for 3 to 5 hours in the pipeline and then flushed out.

7) Bell drinkers must be cleaned with a brush and detergent solution followed by clean water and sun-drying.

8) Automatic (hanging) feeders (Fig. 3.1) are also cleaned with running water and sun-dried.

9) Plastic egg filler flats (Fig. 3.5) are thoroughly washed with water and detergents and flushed with running water under pressure and sun-dried.

Fig. 3.5: Plastic egg filler flats

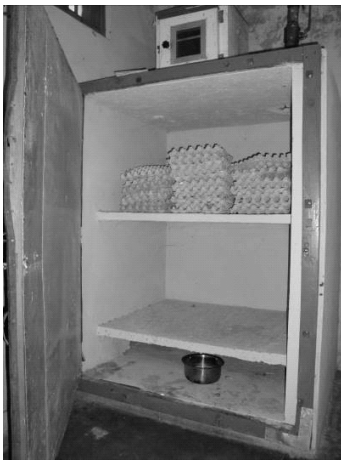

Fig. 3.6: Fumigation chamber

10) Regularly sanitize drinking water (see Experiment 7).

11) Wash vaccinators, needles etc., thoroughly with clean water.

12) Weighing balances and debeakers are to be cleaned with wet cloth every time they are used and after every use.

13) All metal and plastic equipments, except vaccinating and artificial insemination tips, can be fumigated in a fumigation chamber (Fig. 3.6). Fumigation strength of 3 to 5X can be employed (see Experiments 2 and 4).

3.2.4 Observations

i) Number of equipments cleaned by you along with their names.

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ii) Name and quantity of chemicals used for disinfection of equipments.

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3.2.5 Results

Give your opinion on the state of cleaning of equipments handled by you in the farm.

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3.3 PRECAUTIONS

- Use proper concentration of different disinfectants and correct dose of water sanitizer.
- Avoid movement of poultry equipments from one bird to another as far as possible. If it is required for some unavoidable reasons, then, properly clean and disinfect them before use.
- Take all the necessary precautions to prevent harm to the person carrying out the total operation with chemical as it is injurious to the eyes of the operator.