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## **EXPERIMENT 6 MIXING OF FEED ADDITIVES IN POULTRY FEED**

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### **6.1 INTRODUCTION**

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Like other living creatures, birds also need adequate quantity of nutritionally balanced feed for optimum body functions, production, reproduction and health maintenance. The feed additives (ingredients of non-nutritive nature or mixture of ingredients) usually in small quantities are also added to the basic feed mix or parts thereof to accelerate growth, feed utilization, egg production and health. The feed additives are also known as growth promoters, growth stimulants, performance improvers, nutraceuticals etc.

#### **Objective**

After performing this experiment, you will be able to:

- prepare feed additives in poultry feed.

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### **6.2 EXPERIMENT**

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#### **6.2.1 Principle**

While performing to fullest level of growth, production and reproduction, birds are more prone to infections and stressors and thus they require better husbandry practices and welfare. Therefore, the addition of feed additives accelerating/enhancing the growth and other types of performance such as egg production, feed utilization etc. may be beneficial to the birds. Some common feed additives include acidifiers, adsorbents, antibiotics, anti-oxidants, arsenicals, coccidiostats, enzymes, herbal products, hormones, nitrofurans etc. Very often, you hear about the problems of aflatoxicosis (caused by a fungus) and coccidiosis (caused by a protozoa) causing considerable financial loss especially in broilers. Therefore, you should use the feed additives (adsorbent and coccidiostat) to prevent the fungal and protozoal infections.

#### **6.2.2 Requirements**

- Commercial adsorbent (HSCAS) and coccidiostat (nicarbazine)
- Complete feed for broiler

- Ground maize or rice bran or wheat bran
- Jute bag or plastic drum
- Marker
- Plastic small bag
- Plastic sheet
- Plastic tray
- Spoon or spatula
- Weighing balance

### 6.2.3 Procedure

#### (a) Premix of adsorbent

- 1) Procure a very common source of adsorbent or toxin binder that is hydrated sodium calcium alumino silicate (HSCAS). Its preventive dose is 0.5% i.e. 5 g of HSCAS per kg poultry diet.
- 2) Weigh accurately 500 g of HSCAS and 500 g of ground maize or rice bran or wheat bran using a weighing balance.
- 3) Mix thoroughly. Using a marker, mark it properly and store in a polybag.
- 4) Mix this 1 kg premix of HSCAS into 99 kg of poultry feed, for preparing one quintal of feed.

#### (b) Premix of coccidiostat

- 1) Procure a very common source of coccidiostat (nicarbazine). Its preventive dose is 0.0125% i.e. 12.5 mg nicarbazine per kg poultry diet.
- 2) Weigh accurately 12.5 g of nicarbazine and 1 kg of carrier.
- 3) Mix thoroughly. Using a marker, mark it properly and store in a polybag.
- 4) Mix this 1 kg premix of nicarbazine into 99 kg of poultry feed, for preparing one quintal of feed.

### 6.2.4 Observations

- i) Name of adsorbent used .....
- ii) Name of coccidiostat used .....

### 6.2.5 Results

- i) Quantity of adsorbent used .....
- ii) Quantity of coccidiostat used .....

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## 6.3 PRECAUTIONS

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- The feed additives should be collected from reputed firm.
- It should not contain more amount of moisture.
- It should be stored in dry place.
- It should be stored separately i.e. away from the mineral and vitamin mixture otherwise the potency (power) of additives will be altered.
- Always prepare fresh additive premix.