Cholesterol

Cholesterol is a one kind of sterol. It is a fat like materials present in the blood and most tissues especially nervous tissue. It may be of two types-

a) HDL (High Density Lipoprotein)
b) LDL (Low Density Lipoprotein)

Effects: There are some good and bad effects-

Good: 1) It is very essential for growth and development
2) It is precursor of Vit-D, steroid hormone and bile acid
3) It repairs cell damage

Bad: 1) It consists of both saturated and unsaturated fatty acid. SFA is harmful for human body
2) It is mainly harmful for the peoples above 40 years old creating disease like stroke, cancer etc.

Requirement: For a healthy person cholesterol requirement is 300 mg/day

Phase feeding

Adjustment of protein and Ca level of laying diet depending on the stage of production and other functions to make the poultry farming more economic and profitable. There are three phase of production-

1. Phase-I (22-42 weeks): In this time body weight and egg production (0 to 85%) of birds is increased. Dietery protein requirement of this stage is 18.0 g/day
2. Phase-II (42-65 weeks): In this time only egg weight is increased but egg production slightly decreased. CP requirement is 16.0 g/day.
3. Phase-III (65-85 weeks): In this time egg production is severely decreased (less than 65 %). CP requirement is 15.0 g/day.

Flock uniformity

The percentage of birds having a body weight between 10% above or below the percentage of target body weight is called the flock uniformity. A flock is said to be uniform when average body weight of the flock nearly matches the target body weight. It is expressed in percentage (%)

Objectives of maintaining uniformity

- ❖ High egg production
- ❖ Persistency in production
- ❖ Improvement of FCR
- ❖ Reduce the chances of disease
- ❖ Reduce morality
- ❖ Making vaccination effective
- ❖ Making medication effective
- ❖ Reduce cost of vaccination and medication
- ❖ Uniformity in production

Determination of uniformity

$$\text{Uniformity} = \frac{\text{No. of birds within } \pm 10\% \text{ of the target weight}}{\text{Total no. of bird's weight}} \times 100$$

Example:

No. of birds weighted=100

Birds within ±10% = 82

$$\text{Uniformity} = \frac{82}{100} \times 100 = 82\%$$

Score for uniformity:

Uniformity 90% or above -Excellent

80% above but below 90% - good

70% above but below 80% - fair

66% above but below 70%- poor

Poor uniformity results in:

- Irregular pattern in the commencement of laying
- Delay in reaching peak production and production will not be achieved as per expected target
- All birds will not come into peak production at a time

Procedure

- Weighing of approximately 90-100 birds randomly
- Then keep records using a uniformity chart
- Calculate % uniformity as per formula

Reasons of poor uniformity

- Faulty management. e.g. temperature, feeding, stocking density etc
- Hatching of eggs from parent stock of different ages.
- Water (quality, temperature etc)
- Diseases and stress
- Excessive dehydration during transport of chicks

Quality chicks: A Quality chick is a combination of desirable traits which provides farmers satisfaction. Traits are-

- Sound and healthy
- Typical body weight
- Sound egg production
- Better production potentiality
- Disease free
- Obtain from good parent stock
- Purchase from a reliable hatchery

Quality Feed: Quality feed is that type of feed which contains all the nutrients in proper amount and proportion in balanced condition and which is free from microbial contamination. The characteristics of quality feed are-

- Nutritionally balanced
- Free from bacteria, fungus and mould
- Free from any kinds of toxic substances
- Properly mixed
- Properly quality control

All-in-all out system: The most practical program for broiler/layer rearing has been the use of all-in-all-out system, in which only one aged of birds on the same from with the same time.

It implies-

- Enter together
- Leave together
- Keep empty for sometimes
- Then enter a new flock

The all-in-all-out system results in-

- Easy and better management of the farm
- Better hygienic and bio-security management
- Improves the overall efficiency of the production