Unit 9: Poultry Production and Management
Poultry Breeds, Classification, and Methods of Selection

Poultry breeds are classified into three main categories: pure commercial breeds, hybrid breeds, and local or landraces. These breeds are further classified based on their utility or economic value into four types:

1. **Egg Type:** Breeds like Leghorn are primarily used for egg production.
2. **Meat Type:** Breeds like synthetic broilers are bred for meat production.
3. **Dual Purpose:** Breeds like Rhode Island Red are suitable for both egg and meat production.
4. **Ornamental:** Breeds like Bantam are raised for aesthetic purposes rather than production.

Indigenous Poultry Breeds of Ethiopia

Ethiopia has ten common local chicken breeds or ecotypes, including Chefe, Gebsima, Horro, and Tepi. These indigenous chickens are well-adapted to the local environment, showing resilience to diseases and predators. They are characterized by their scavenging habits, broodiness (strong maternal instinct), and ability to survive under harsh conditions, though they grow slowly and have lower production performance compared to commercial breeds.

Commercial or Exotic Breeds

Commercial breeds, such as Bovans Brown, White Leghorn, and Babcock, are imported to Ethiopia to improve local poultry production.

- **Bovans Brown:** Known for high egg production and docility, making it ideal for traditional production systems.
- **White Leghorn:** Efficient layers known for producing many white eggs with minimal feed consumption.
- **Babcock:** A broiler breed bred for rapid growth and efficient meat production.

Poultry Breed Selection Methods

Selecting the best poultry breed involves evaluating several characteristics:

1. **Individual Performance:** Includes traits like precocity (early development), intensity of laying, and persistency of laying.
2. **Individual Appearance:** Focuses on physical traits such as body vigor, head and comb structure, and changes in the pubic bone, abdomen, and vent during laying periods.

3. **Productivity and Efficiency:** Includes feed consumption, hardiness, adaptability, and overall productivity.

In summary, understanding the classification of poultry breeds and the methods of selection is crucial for effective poultry farming. Whether for egg production, meat production, or both, choosing the right breed can significantly impact the success and sustainability of a poultry operation.

Poultry Brooding and Rearing

Brooding is the critical period when young chicks, from one day old to about four weeks in the tropics, require intensive care and supplementary heat to thrive. It is a vital stage as chicks are highly vulnerable, and improper care can lead to high mortality rates.

Methods of Brooding:

1. **Natural Brooding:** The hen naturally provides warmth and care to the chicks.
2. **Artificial Brooding:** This involves using equipment like:
    - Electric brooders (infra-red heat bulbs)
    - Kerosene brooders
    - Other heat sources (hot air, hot water, radiant heat)

Layers and Broilers Management

Layers: Hens begin laying eggs at around 20 weeks of age, with egg production peaking after 8 weeks. The 'laying percentage' indicates the ratio of laying hens to the eggs produced daily.

Broilers: Broilers are reared using the "all-in, all-out" principle, meaning all birds on-site are of the same age. They reach slaughter weight in eight weeks, and two weeks are needed between batches. Proper litter management is crucial to prevent issues like breast blisters.

Poultry Housing Equipment

- **Laying Nest:** Where hens lay eggs. They can be individual or communal, with proper space for the hens.
- **Perches:** Birds perch on horizontal bars, with sufficient space needed for each bird.
- **Feeders and Drinkers:** Ensure enough feeding and drinking space is provided, with clean, cool water always available.

- **Lighting:** Essential for increasing feed intake, promoting growth, and stimulating laying. Provide 12-16 hours of light daily, using appropriate bulbs.

Major Diseases of Poultry and Control

Poultry diseases can arise from infections (viral, bacterial), parasites, and nutritional deficiencies. Common diseases include Newcastle disease, avian coccidiosis, and Salmonella infections.

Control Methods:

- Maintain good hygiene and disinfection.
- Implement the "All-in, all-out" system.
- Vaccinate against common diseases.
- In severe cases, consider slaughtering the entire flock and disinfecting the area before starting anew.

These practices are essential for effective poultry management, ensuring healthy and productive flocks.