

Lect. 1**Poultry production****6th/Nov./2024**

The science that seeks to provide learners with knowledge on essential building and equipment, incubation of eggs, hatchery management, principles for successful production, breeds and breeding, brooding of chicks and management techniques, how to rear chicks, table egg and meat production, processing and marketing, and products, health management practices, diseases and parasites, and economic implication of these diseases.

Poultry production began to be more specialized in the late 1800s and today is a highly specialized industry. The poultry industry is also actively promoting and marketing products both to meet consumer needs and to address concerns related to health and the safety of food products.

Poultry are domesticated birds kept by humans including (chickens; turkeys; geese; ducks; gamebirds; bantams... etc.) for their economic value (products).

Poultry products:

1. Poultry meat: either marketed as a live bird or they are converted to different poultry meat products.
2. Eggs: either consumed as whole egg or processed in egg processing industrial.
3. Feather for industry and ornamental.
4. Poultry waste (including the wastes of poultry houses (manure) and slaughter houses) is an excellent source of organic materials which can be utilized as organic fertilizer in growing crops and concentrated feed in livestock production.

Classification of poultry: The scientific classification of poultry

Kingdom	Animalia (as opposed to plant kingdom)
Sub-kingdom	Metazoa (bodies consisting of specialized cells)
Phylum	Chordata (axial skeleton with notochord)

Sub-phyllum	Vertebra (well-developed brain and axial skeleton)
Class	Aves (feathered, warm blooded vertebra with 4-chambered heart)
Sub-class	Neornithes (without teeth)
Order	Galliformes (bird with short wings, legs and toes adapted for running and scratching)

Chicken (fowl) belongs to –

Family: Phasianidae, **Genus:** Gallus (cock like bird), **Species:** Domesticus (breeding under domestic condition).

Scientific name of domestic fowl is: *Gallus gallus domesticus*

A. Classification of fowl according to the geographical areas or region

1. **Asiatic:** Brahma, Longson, Cochin, Asil etc.
2. **English:** Australorp, Cornish, Dorking, Orpington etc.
3. **Mediterranean:** Leghorn, Minorca, Ancona, Fayoumi etc.
4. **American:** Rhode Island red, New Hampshire, Plymouth Rock etc.

B. Classification on the basis of economic value (production)

- 1) **Egg type (Layer):** as Leghorn, Minorca, Ancona, Fayoumi, Isa Brown, Babycok, Star Cross, Lohman etc.
- 2) **Meat type (Broiler):** as Plymouth rock, Cornish, Sussex, Dorking, Cochin, Brahma, Asil, Star Brow, Hi-line etc.
- 3) **Dual purpose (Egg and Meat)** this types of breed are used for both egg and meat production. Like: Rhode Island Red, New Hampshire, Plymouth Rock etc.

Breeds of ducks: Ducks belongs to –

Family: Anatidae, Genus: Anas, Species: Platyrhynchos.

Breeds of ducks for meat production are: White Pekin, Aylesbury, Muscovy, Rouen, Cayuga, Swedish, and Call.

Breeds of ducks for egg laying are: Khaki Campbells and Indian Runners.

Breeds of geese: are grouped into heavy, medium and light classes in the waterfowl standards. Commercially, geese are bred for their meat, foie gras and occasionally for eggs, but specialist breeders and keepers of pure geese breeds; providing charming and intelligent pets, useful ‘guard dogs’, efficient ‘lawn mowers’. They can even be used as weeders in organic farming.

Heavy class geese: African; American Buff ; Embden; Toulouse.

Medium class: West of England; Pomeranian; Brecon Buff; Buff Back/Grey Back.

Light class: Chinese; Czech; Pilgrim; Roman; Sebastopol; Steinbacher.

Breeds of turkey:

It belongs to the family Meleagridis. Turkeys are kept only for meat, while the produced eggs are used for hatching purposes. In India turkeys are almost non-existent and constitute 1% of total poultry population. Turkeys are most popular in USA and are not classified into breeds like chicken and ducks. The popular standard varieties are:

1. Broad Breasted Bronze
2. Broad Breasted Large White
3. Beltsville Small White
4. White Holland
5. Bourbon Red.

Breeds of Quail: Japanese quail belongs to:

Family: Phasianidae, **Genus:** Coturnix, **Species:** *Coturnix coturnix japonica*.

Bob white quail come under a different **sub-family and species:** *Colinus virginianus*.

Quail farming is popular in Japan, Hong Kong, Korea, France, Italy, Germany and Britain. Females (150 – 180 g) are heavier than males (120 – 130 g). They lay eggs at the age of 6 weeks and egg weight is around 10 g. Quails lay about 210 eggs per year. Meat is very delicious.