

Poultry production

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 eggs, meat and feather.

Advantages of Poultry Raising

Raising poultry has a number of advantages, among which are:

1. High feed efficiency.
2. Fast return on investment.
3. Spreading income throughout the year.
4. High return compared to feed costs.
5. Low land requirements.
6. Adaptability to both small part-time enterprises and large commercial enterprises.
7. The operation can be highly mechanized, with high output per hour of labor.
8. Getting benefits of their 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**A. The scientific classification of chicken**

- Kingdom: Animalia
- Phylum: Chordata
- Class: Aves
- Sub-Class: Neornithes
- Order: Galliformes
- Family: Phasianidae
- Subfamily: Phasianinae
- Genus: Gallus
- Species: G. gallus
- Subspecies: G. g. domesticus
- Scientific Name: Gallus gallus domesticus

B. Classification According to Origin

According to origin the chickens are of four types:

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

Table: Characteristics of Some Typical Breeds of Chickens

Class and Breed	Eggs	Skin	Comb	Eyes	Earlobes	Shanks	Plumage	Comments
Mediterranean								
Leghorn (white)	White	Yellow	Single	Reddish bay	White	Yellow	White	All three are small in size and are used mainly for egg production—Leghorn is the most popular.
Minorca (Black)	White	White	Single	Brown	White	Dark slate	Black	
Andalusian (Blue)	White	White	Single	Reddish bay	White	Dark slaty Blue	Slaty blue	
American								
Plymouth Rock (Barred)	Brown	Yellow	Single	Reddish bay	Red	Yellow	Barred (sex-linked)	Dual purpose; used in crosses for sexing chicks at hatching.
Plymouth Rock (White)	Brown	Yellow	Single	Reddish bay	Red	Yellow	White	Primary use—Broiler.
New Hampshire	Brown	Yellow	Single	Reddish bay	Red	Yellow	Red	Primary use—Broiler.
Rhode Island Red	Brown	Yellow	Single	Reddish bay	Red	Yellow	Dark red	Dual purpose.
English								
Cornish (White)	Brown	Yellow	Pea	Pearl	Red	Yellow	White	Used in development of male lines for crossbreeding.
Australorp	Tinted	White	Single	Brown	Red	Dark slate; bottom feet white	Black	Used in production of crossbreeds.
Asiatic								
Brahma (Light)	Brown	Yellow	Pea	Reddish bay	Red	Yellow; feathered	Columbian (white & black)	Used in crossbreeding for meat production.

Source: U.S. Department of Agriculture. Agricultural Statistics, various years.

C. Classification On the Basis of Production

On the basis of production chicken are of three types:

- 1) **Layer** is for egg production. Some popular layer breeds are Leghorn, Minorca, Ancona, Fayoumi, Isa Brown, Babycok, Star Cross, Lohman etc.
- 2) **Broiler** chicken are only for meat production. Plymouth rock, Cornish, Sussex, Dorking, Cochin, Brahma, Asil, Star Brow, Hi-line etc. are popular broiler breeds.

3) **Dual purpose (Egg and Meat)** this types of breed are used for the purpose of both egg and meat production. Rhode Island Red, New Hampshire, Plymouth Rock etc. are popular breeds for both meat and egg production.

Most of the turkeys, ducks, and geese are raised for meat production. Except for hatching purposes, there is little market for turkey, duck, and goose eggs.

Turkey breeds including the Broad Breasted Bronze, Broad Breasted Large White, Beltsville Small White, Narragansett, Black, Slate, and Bourbon Red.

Ducks breeds the best breeds of ducks for meat production are the White Pekin, Aylesbury, Muscovy, Rouen, Cayuga, Swedish, and Call. The best egg-laying breeds are the Khaki Campbells and Indian Runners.

Geese the five common breeds of geese are the Toulouse, Embden, Chinese, Pilgrim, and African.