

## **Class 24: Classification of poultry viz. layer, broiler and dual purpose- Nomenclature of commercial layer and broiler strains.**

India occupy 5<sup>th</sup> place in worlds Egg production -32700 million. The per capita consumption of an India is approximately 33 eggs as against the recommendation of 180 egg.

Indian poultry population – 435 million – 4% World poultry.

Tamil Nadu ranks second in the country producing 4400 million eggs per year. Namakkal is a second largest poultry pocket in India with the population of 75 lakhs chicks and growers and about 196 lakhs layer birds. The poultry production through out the world is carried out by a highly specialized efficient Poultry Industry that has been a leader in trends of scale. Poultry Industry has shifted itself rapidly and completely from a small scale non intensive production units to a highly specialized intensive industry. The progress is attributed to the conceptual change that had taken place in the middle of the century.

Which is attributable to the demands of the situation

Shortage of red meat,

Lesser cost and land involvement

Shorter generation interval

Higher multiplication rate.

The following are the reasons for the phenomenal development of the Industry.

1. Evolution of High yielding strains
2. Economic management systems.
3. Improved Nutritional systems.
4. Advanced Desired control technology.
5. Automation in operation.
6. Integration
7. Increased consumer awareness.
8. Improved marketing system.
9. Insurance and Bank Assistance.

Poultry Industry:

Grand parent Hatchery

Parent Hatchery      Sub-Franchisers

Grower farms

Feed manufacturers

Equipment manufacturers

Marketing enterprise.

disease control units and poultry service organisation.

Breed of poultry

Class : Many groups of birds belonging to a particular tract or locality Eg. English, Asiatic, American.

Breed refers to a group of domestic fowls with a common ancestry and having similarity in shape, conformation, growth, temperament, shell colour of egg and breed true to type. Variety is a subdivision of breed and within a breed there may be several varieties. The term variety is used to distinguish fowls having the characteristics of the breed to which they belong but differing in plumage colour, comb type etc. from other groups of the same breed. A breed/variety may also have several strains or lines identified by a given name and produced by a breeder through at least 5 generations of closed flock breeding for a particular purpose. Several strains within a breed/variety phenotypically may look alike but often differ in their production performance depending upon their breeding history.

Breed of Poultry

<b>Asiatic</b>	<b>American</b>	<b>English</b>	<b>Mediterranean</b>
Aseel	Plymouth Rock	Sussex	Leghorn
Karaknath	Wyandotte	Orpington	Minorca
Ghagus	Rhode Island Red	Australorp	Ancona
Chittagong	New Hampshire	Cornish	Spanish

Mini			Andalusian
Brown Desi			
Denki			
Naked neck			
Brahma			
Cochin			
Langshan			

Poultry may also be classify based on were utility

1. Layer – Leghorn, Minorca
2. Broiler – Orpington, Cornish
3. Dual – Plymouth, Rhode island red

Based on the utility and perfomance many hybrid strains of poultry have been developed and commercially produced.

Layer – Babcock 300, Hyline-WS 36, Bovans.

Broiler – Ross, vencobb, hybro.

Egg Science and Technology :

Egg is the physiological product of the female reproductive system and a hen’s egg, apart from the ovum does contain other nutrients for the growth and development of the embryo.

Egg average weight : 50-60 gm.

Egg contains yolk – 30%

White or albumen – 58%

Inner & outer shell membranes & shell – 12%

Nutrient composition : on egg weight

12% Protein

11% Fat

12% minerals and 65 % water

Colories : 148 cal/100 gm.

grading of eggs :

By wt. : Extra large 60 gms/egg  
Large 53-59 g.  
Medium 45-52 g.  
Small 38-44 g.

Agmark grading :

A- grade : Clean, unbroken shell, aircell, 4mm depth, clear, firm white well centered yolk free from defects.

B-grade : Clean, moderately tainted shell, aircell 8 mm depth, slightly off centered and shape visible

No grade : Eggs classified as loss or no grade is edible - contaminated by smoke, chemical and other foreign materials, which may effect the character and appearance.