COMMON BREEDS OF FOWL

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ABSTRACT

The term ‘breed’ denotes an established group of birds related by breeding, possessing a distinctive shape and the same general weight. A total of 342 breeds and varieties of domesticated land and waterfowl are listed in Standard of Perfection (1966). Commercially important breeds of fowl are White Leghorn, Rhode Island Red (Egg type), White Cornish, White Plymouth Rock (Meat type) in chicken; Aylesbury, Muscovy, White Pekin (Meat type), Indian Runner, Khaki Campbell (Egg type) in duck and Broad Breasted White in turkey.

INTRODUCTION

From an evolutionary viewpoint, birds are merely warm blooded, feathered and flying reptiles. More than 250 million years ago, the primeval ancestors of reptiles came out of their watery habitat and adapted to the hot and dry climate of their new terrestrial environment.

In the Triassic period of the Mesozoic era, early forms of the subclass Archosauria appeared. From this subclass, the group Dinosauria evolved. Fossil evidence indicates the existence of a flying dinosaur called Pterodactyl. Its 30-ft wingspan and large body probably made this reptile the heaviest flying animal ever to inhabit the earth.

Approximately 180 million years ago, another group – Archaeopteryx – evolved from the Archosauria. This group eventually became birds, as we know them today. The developmental link between the Archaeopteryx and the Archosauria has not yet been found; but it has been hypothesized that the animal must have been a scaled, two legged avireptile because, by the time Archaeopteryx had evolved, feathers had replaced the scales, characteristic of reptiles.

Today, true birds are grouped in the class Aves, subclass Neornithes. The subclass is further divided into superorders: 1. Ratitae (referring to a flat breastbone), a division encompassing birds, such as the Ostrich, Emu and Kiwi; and 2. Carinatae (referring to a keel - like breastbone), a division encompassing the rest of the birds.

The zoological classification of birds follows:

Phylum........................................ Chordata
Subphylum................................. Vertebrata
Class......................................... Aves
Subclass................................. Neornithes
Super order.............................. Ratitae
Super order.............................. Carinatae
Within the super order Carinatae, there are 2,810 genera, 8,616 species, and over 28,000 subspecies. The genus-species classification of domesticated fowls follows:

Chicken.................Gallus domesticus
Duck....................Anas domestica
Goose....................Anser domesticus
Turkey...................Meleagris gallopavo
Japanese Quail...............Coturnix coturnix japonica
Guinea fowl...............Numida meleagris
Pigeon..................Columba domestica

CLASSIFICATION OF FOWLS

Fowls can be classified as follows on the basis of utility or economic value to man or fancy purpose. (a) Egg type (b) Meat type (c) Dual purpose (d) Game (e) Ornamental (f) Bantam

They are further classified on the basis of their origin as follows.

i. Class:

The term ‘class’ is generally used to designate a group of breeds developed in certain regions or geographical areas.

ii. Breed:

The term ‘breed’ denotes an established group of birds related by breeding, possessing a distinctive shape and the same general weight.

iii. Variety:

Variety represents a sub-division of a breed, distinguished either by plumage colour, feather pattern or comb type.

iv. Strain:

A strain refers to a line, family or a group of birds bearing a given name and produced by a breeder through a specialised breeding programme which reproduces uniform characteristics with marked regularity.

Birds of distinct type and colour patterns admitted to the standards are termed as standard bred / purebred. A total of 342 breeds and varieties of domesticated land and waterfowl are listed in Standard of Perfection (1966), published by the American Poultry Association, Inc. In poultry industry, there are no breed registry associations like those for four-footed farm animals. Hence in a sense, Standard of Perfection takes the place of such a registry association by recognizing as ‘Purebred’ only those individuals that show characteristics confirming to those given in Standard of Perfection.
CHICKEN

Modern domestic breeds are considered to be the descendants of the jungle fowl found in India and its neighbouring countries like Sri Lanka, Myanmar, China, Indonesia and Malaysia, domesticated in 2500 BC.

Four species of wild or jungle fowl are known, viz., *Gallus gallus* (Red jungle fowl), *Gallus lafayayetti* (Ceylon jungle fowl), *Gallus sonneratii* (Grey jungle fowl) and *Gallus varius* (Javan jungle fowl).

Standard of Perfection (1966) lists nearly 200 varieties of chicken. However, only four breeds, White Leghorn (White shelled) and Rhode Island Red (Brown shelled) Egg type, White Cornish and White Plymouth Rock - Meat type, are commercially important today, with three other breeds (Rhode Island Red, Barred Rock and New Hampshire) of negligible importance.

Some breeds and varieties of chicken and their characteristics features are given in the following Table 1.
### INDIAN BREEDS

A large number of fowls of different sizes, shapes and colours, resembling the jungle fowls, are found all over India. There are only 4 pure breeds of fowls indigenous to India. They are Aseel, Chittagong, Busra and Kadaknath.

a. **Aseel**: Is noted for its pugnacity, high stamina, majestic gait and dogged fighting qualities. The best specimens are encountered in Andhra Pradesh, Uttar Pradesh and Rajasthan.

   Standard weights (kg): Cock 4.5; Hen 3.4.

b. **Chittagong**: It is also known as the Malay. It is found mostly in Eastern India.

   Standard weights (kg): Cock 3.5-4.5; Hen 3.4.

c. **Kadaknath**: The original name Kalamasi, means fowl with black flesh. Native to Madhya Pradesh.

   Standard weights (kg): Cock 1.5; Hen 1.0.

d. **Busra**: This is a small to medium-sized bird and is found in small numbers in some parts of Gujarat and Maharashtra.

   It is highly imperative to carry out a review of work done, on the species of jungle fowls and indigenous breeds as well as carry out further research of native germ plasm in order to identify, characterize and document breeds, which are grouped as non-descript.
DUCKS

The Wild Mallard duck, *Anas boschas*, is the ancestor of all domestic breeds of ducks. Ducks were domesticated in China in 2500 BC. Ducks are classed as meat producers and egg producers.

**Meat breeds:** Aylesbury, Muscovy and White Pekin ducks are excellent meat producers.

- **Aylesbury:** The breed is popular in England where it originated. They reach market weight in 8 weeks.
  
  Standard weights (kg): Drake 4.5; Duck 4.0.

- **Muscovy:** The breed originated in South America. When crossed with other breeds it produces sterile offspring called mule ducks.
  
  Standard weights (kg): Drake 4.5-6.4; Duck 2.1-3.1.

- **White Pekin:** This breed originated in China. It is hardy and most popular for meat.
  
  Standard weights (kg): Drake 4.0; Duck 3.6.

**Egg Breeds:** Indian Runners and Khaki Campbells are excellent egg-laying breeds.

- **Indian Runner:** The Indian Runner originated in the East Indies. A flock average of more than 250 eggs is not uncommon.
  
  Standard weight (kg): Drake 1.6-2.2; Duck 1.4-2.0.

b. **Khaki Campbell:** It originated in England. It is the most popular breed for egg production. Stocks with a flock average of 300 eggs are not uncommon.

  Standard weights (kg): Drake 2.2-2.4; Duck 2.0-2.2.

**INdIAN BREEDS**

The common Indian breeds of duck are Indian Runner, White Bearded, Nageswari and Synthet Mete.

More work has to be carried out on the native germ pool in order to identify, typify and manuscript breeds, which are grouped as non-descript.

**GEESE**

Domesticated geese were established in Egypt in 1500 BC. Toulouse, Embden and African geese are the most popular breeds for meat Table 2.

**Table 2**

**GEESE: BREEDS AND RECOGNIZED WEIGHTS**

<table>
<thead>
<tr>
<th>BREED</th>
<th>Weight of male (kg)</th>
<th>Weight of female (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Young Adult</td>
<td>Young Adult</td>
</tr>
<tr>
<td>Toulouse</td>
<td>9.1 11.8</td>
<td>7.3  9.1</td>
</tr>
<tr>
<td>Embden</td>
<td>9.1 11.8</td>
<td>7.3  9.1</td>
</tr>
<tr>
<td>African</td>
<td>7.3  9.1</td>
<td>6.4  8.2</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>BREED</th>
<th>Weight of male (kg)</th>
<th>Weight of female (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Young</td>
<td>Adult</td>
</tr>
<tr>
<td>Chinese</td>
<td>4.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Egyptian</td>
<td>2.3</td>
<td>2.5</td>
</tr>
<tr>
<td>Canada</td>
<td>4.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Sebastopol</td>
<td>5.5</td>
<td>6.4</td>
</tr>
<tr>
<td>Pilgrim</td>
<td>5.5</td>
<td>6.4</td>
</tr>
<tr>
<td>Buff</td>
<td>7.3</td>
<td>8.2</td>
</tr>
</tbody>
</table>

**TURKEY**

Turkeys are native to America. The earliest evidence of turkey domestication was in Mexico in 2500 BC. Seven standard varieties, popularly called breeds, of domesticated turkey are recognized by Standard of Perfection (1966); viz., Bronze, White Holland, Bourbon Red, Narragansett, Black, Slate and Beltsville Small White. Including wild turkeys, there are perhaps a dozen non-standard varieties, of which, only the Broad-Breasted White (also called Large White) variety of turkey is commercially important.
JAPANESE QUAIL

Quails were first domesticated in Asia, around the 11th century AD, but their main use was as caged songbirds. Interest in their use for edible eggs and meat began in Japan only in the early 20th century.

BREEDS: The following breeds of Japanese quail are known: Manchurian Golden, British Range, English White and Tuxedo.

Adult males weigh 4 to 5 oz, and adult females 4.5 to 6 oz (to convert to grams multiply by 28.35). As noted, the females are generally larger than the males.

GUINEA FOWL

The fowls derive their name from Guinea, a part of the West Coast of Africa. The domestic guinea fowl descended from one of the wild species of Africa. Guinea fowl have been domesticated for centuries, the ancient Greeks and Romans were known raised them as table birds.

VARIETIES: There are three important varieties of domesticated guinea fowl: Pearl, White and Lavender.

At maturity both males and females range between 3 and 3.5 lb in weight.

PIGEON

The earliest fascination of people with pigeons goes back to at least 5000 BC.

A versatile bird with four distinct uses: (a) as a sport (racing pigeons), (b) flyers and performers, (c) for show (fancy pigeons) and (d) meat production.

BREEDS: There are about 200 different breeds, each distinct from the other in behaviour, size, shape, stance, feather form, colours, markings and ornamentation.

The Homer, White King and Swiss Mondaries are the most popular.

CONCLUSION

Though there are numerous breeds and varieties in domesticated fowl, only the following breeds are of commercial value, viz., White Leghorn and Rhode Island Red (Egg type), White Cornish and White Plymouth Rock (Meat type) in chicken; Aylesbury, Muscovy, White Pekin (Meat type), Indian Runner and Khaki Campbell (Egg type) in ducks; the Broad Breasted White variety in turkey. More work has to be carried out on the native species of jungle fowl, chicken and duck germ plasm in order to identify, characterize and document species/breeds, which are grouped as non-descript.

REFERENCE


Poultry for Sustainable Food Production and Livelihood


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ABSTRACT

Layers are egg type chickens reared specifically for egg production. Layer production in India has been growing tremendously. Layer industry is growing at the rate of 10% per annum and is poised for a greater growth in future. Layer farming, which was once considered as backyard farming, has attained the status of a full-fledged industry. India currently ranks fifth in the world in egg production, with a total output of 17 million eggs compared to China, which produces 10 times more eggs and is the first in egg production.

The layer type birds start laying eggs from 20 weeks and thereafter lay onto a maximum of 280 to 300 eggs in a year depending upon the strain and management. Layers have three stages of rearing, viz., brooding (0-8 weeks), growing (9-20 weeks) and laying (21-72 weeks). Eggs are a very rich source of protein and other nutrients and are next to milk in their biological value. Further, egg is one of the cheapest sources of animal protein.