LESSON 7: VARIOUS TYPES OF POULTRY FARMS

STRUCTURE

- Purpose of farming
- Types of poultry farms
- Chicken farms
- Other species farms
- Summary

LEARNING OUTCOME

After going through this lesson, you will be able to:

- Identify different types of poultry farms available in India
- List the purpose of poultry farming
- Classify chicken and other species farms based on utility

PURPOSE OF FARMING

You can rear domestic poultry for various purposes and some of them are listed here under.

- Production of hatching eggs from a breeding poultry farm
- Chick production as the chicks are young ones to grow adult to produce eggs or meat
- Replacement of pullets in a running layer farm as the farming is a continuous activity like a machine, its stoppage or discontinuity will affect adversely and engulf the profit
- Egg production from a layer farm as the eggs are nutritious and scientifically balanced animal protein for human beings
- Broiler meat production from a broiler farm as the broiler meats are delicious and nutrient-enriched animal protein for human beings
- Rearing of breeders in a breeding farm containing male breeders-cocks and female breeders-hens
- Demonstration on broiler and layer farm under education and training programme to illustrate various activities related with egg and meat production

TYPES OF POULTRY FARMS

Though, you can find a large number of chicken farms (either for eggs or meat purpose) on a variable size in your areas and adjoining, other farms employing duck, emu, geese, guinea fowl, ostrich, partridge, pea fowl, pheasant, pigeon, quail, swan and turkey are also available but on a small scale. This is also very evident that the diversified poultry species are gaining popularity like broiler or layer chicken farms for production of eggs and meat. Various types of poultry farm available in India are explained below:

CHICKEN FARMS

In chicken farming, a farmer may opt for starting either a broiler farm or layer farm depending upon the requirement of meat and egg, respectively in the area. Further, within layer farming, one can go for egg production, production of replacement pullets, chick production and production of hatching eggs. Besides the nutritive value, eggs have many industrial uses in preparation of adhesives, printer inks, shampoos, soap, varnishes, vaccines, etc. The egg shells are used as mineral-feed to animals and birds. The feathers are used for making various goods such as cushions, mattresses, pillows etc. Some of the day-old commercial hybrid chicks for broilers and layers are as follows:

Broilers: Anak 2000, Hubbard, Hybro Ross, Kegbro, Shaver Starbro, Vencob etc.

Layers: BV-300, BV-380, Bovans White, Deklab, HH 260, Keystone, Shaver Starcross etc.

OTHER SPECIES FARMS

a) Duck

The ducks occupy second place to chicken in population of eggs in the country as they are reared mainly for egg and meat purposes. Duck production is mostly concentrated in the eastern and southern states like Assam, Manipur, Tripura and West Bengal followed by Andhra Pradesh, Bihar, Jammu and Kashmir, Karnataka, Kerala, Orissa, Tamil Nadu, and Uttar Pradesh. The duck rearing is more popular due to the following advantages:

- Availability of ponds and waterways. Chickens do not flourish in marshy wetland area, which are ideal for duck rearing.
- These watershed areas in addition to lakes and ponds provide algae, earthworms, fungi, insects, small fishes, snails, water weeds etc., as natural food for the ducks and reduce the feed cost.

- Ducks are prolific layers. Even native breeds with a high disease resistance can lay about 160-180 eggs in a year.
- Ducks also enrich the soil by their droppings while foraging.
- Duck eggs are 15-20 grams heavier than chicken eggs.
- Requires less care and attention in management.
- Comparatively, ducks are more resistant to diseases than chicken.
- Majority of ducks lays eggs before 9.00 A.M. which helps in easy egg collection as well as saves labour cost.
- Acts as biological vector and control many diseases by destroying snails.
- Suitable for mixed farming system such as duck-cum-fish farming.

b) Emu

The emu is another latest addition to poultry species for commercial use, which has almost similar scope in farming like ostrich. The emu is the second largest bird and native of Australia, where large number of emus are reared in scientifically managed farms for their fat, feather, meat and skin. The body weight of an adult emu is about 40-50 Kg and their height is around 1.75 metres. Its egg weight is 0.7 to 1 Kg. Their meat is tasty and feathers are in great demand in the international market. The breedable age of emu is 40 years and it attains sexual maturity at an average age of 18 months and the incubation period of egg is 52 days. An adult emu consumes about 3 kg of feed. The meat yield is 25 kg at the slaughterable age of 12 months. The emu oil is a natural product and has been used for the treatment of muscular and arthritic pain. The beauty and body care products with emu oil are now available in the market. On account of better penetrating quality, the emu oil is absorbed rapidly.

Emu Farming

Geese

c) Geese

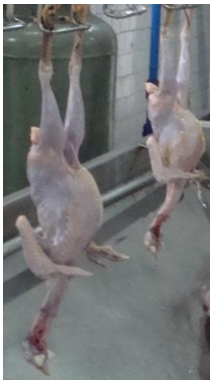
Geese are very popular (next to chickens) in Russia. Male geese are known as gander and the females are called geese. In India, the Brown-backed and White geese are found. Some of the specific characteristics of geese are as follows:

- Hardy and can easily adapt to different feeding and management conditions.
- Have the ability to digest 40-50 % crude fibre; as such, the feed cost can be reduced by incorporating large quantities of high-fibre containing forages in the feed.
- Geese meat has high caloric value.
- Goosling (young geese) can attain 5 Kg weight at 8 weeks of age with the feed conversion efficiency of about 3.0 Kg, that is, it can gain 1 kg body weight by consuming 3 kg feed.

d) Guinea Fowl

India has a large population of guinea fowl and ranks third after chicken and duck. It is well adapted to diverse agro-climatic conditions prevailing in arid and semi-arid regions and also well accepted by the marginal farmers as well as other vulnerable groups as small-scale poultry enterprises raised under free-range in the states of Madhya Pradesh, Punjab, Uttar Pradesh and some parts of India. Lavender, Pearl and White are the three commonly known varieties of guinea fowl in India. The notable features of guinea fowl are:

- Hardy, disease resistant, need low input and has unique ability to survive and thrive under sub-optimal management and feeding conditions because of its foraging habit.
- Meat is tender but pinkish red or dark in colour and having flavour of game bird.
- Seasonal breeder and lay eggs between March and September.
- Come into production in about 30 weeks of age and lays 130-170 eggs in the first years. The average egg weight is 43-48 g.
- Highly resistant to viral disease. Therefore, generally raised without any vaccination.



Guinea Fowl meat

e) Ostrich

The ostrich is hardy and are the largest among the living birds at present. Locating the ostrich farms in an area suitable for Lucerne growing has an advantage since grazing of Lucerne by chicks is a method of rearing which yields excellent result. In order to have a better cash flow, the ostrich farming can be practised along with other crops, horticulture and livestock farming. It is however, not advisable to confine ostrich farming with production of other avian species such as domestic fowl, emu, turkey etc. as the risk of spread of diseases between such species is high. Day-old ostrich chicks weighs about 600-700 g and reach slaughter weight at the age of 7-8 months, weighing 150 kg with a height of 2.5 m. An ostrich can live up to 70 years and can breed for 40 years, at the rate of more than 20 chicks per year, and can produce 15 square ft. leather hide and 30 Kg premium meat. The weight of one egg is 1.5 kg. The adult ostrich consumes about 5 kg feed per day.

f) Partridge and Pheasant

Rearing some of the game birds like partridges and pheasants are also popular in India. The partridges may be bred until or beyond 5-8 years whereas pheasants are usually bred for one year. The partridges fight, even while young, when put in groups. Hence, even brooding is preferably done with less than 30 chicks in one group. On an average, the partridges lay 30 eggs in spring and summer. Chinese Ring Neck pheasant is the most common game breed. The pheasants lay in clutches of 10-12 eggs and the eggs hatch in 23-24 days. Their rearing techniques are different for different purposes.

g) Peafowl

Indian blue is the common breed with Java Green and Congo being the other breeds of peafowl. A male can mate with 5 females and laying begins after 2 years of age. Usually, 10-12 eggs are laid in one year.

h) Pigeon

Pigeons are reared for fancy, flyers, meat and sports purposes. Homer, Swiss Mondaine and White King are important breeds of pigeon available in India. They mate in pairs and remain faithful throughout their life. The house for pigeons is called ‘loft’. The female pigeon will usually lay 2 or 3 eggs in a clutch and the clutch interval will be 4 to 5 weeks. The males incubate eggs during midday and females during the rest of the time; the eggs hatch by 17th day and young one is referred to as squab. Both the parents take care of the feeding of young ones by regurgitating (bring back) the crop contents called ‘crop milk’ or ‘pigeon milk’. Pigeons, like geese, are very fast growing.

i) Quail

The term ‘quail’ refers to a group of small-sized birds, which generally run rather fly to escape from danger. Japanese quail is a sub-species and mostly reared in India. They are first raised as pets or singing birds, but now they are widely used for meat and egg. The reasons for popularity of quail farming are as follows:

- Hardy and it can adapt to various environments.
- Do not require specially designed house.
- Fast growing birds, mature in about six weeks and are usually in full production by about seven weeks of age. The live weight of mature bird is 120-150 g for male and 150-180 g for female.
- Prolific layers produce three to four generations per year and lay 260 eggs in their first year of lay.
- The adult hen will consume 20 to 25 g of feed per day and lay egg of 10 to 12 g in weight.
- Comparatively, less floor, feeder and water space in required in comparison to chickens and ducks.
- More resistant to diseases than chickens.
- Require less capital investment.

j) Swan

The swans are mainly ornamental. Common breed is Mute Swan which has no voice. They mate in pairs and, like pigeons, remain faithful throughout their life. Females breed as long as 30 years and males live up to 60 years. They lay only 6-8 large, greenish-white eggs per year which hatch in 35-40 days (six weeks).

k) Turkey

Among the various poultry species, turkey is mostly reared for meat purpose. In India, turkey production is still in its infancy (initial stage). Small flocks are available at some of the Agricultural Universities and Private farms for research and development purpose only. Since the turkey poults and hens are bigger in size, their cut-ups can be marketed in various attractive packaging suited to the individual consumer. They are more resistant to disease than chicken and therefore, rarely suffer from diseases. The turkey farming has the following benefits:

- Grows very fast.
- Can be reared under range system in the backyards.
- Turkey egg weighs 1.3 times more than the chicken egg.
- More resistant to diseases than the chickens.
- Better forager than chickens.
- Turkey meat contains very less fat as compared to meat of other avian species.

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