



Improvement of food resources

1. Crops

- (i) Food crops include wheat, rice, maize, pulse, vegetable, spices and fruits.
- (ii) Commercial crops include cotton, jute, flax, hemp, etc.
- (iii) On the basis of seasonal variation, crops are of two types :- Rabi crops and Kharif crops.
- (iv) Rabi crops or winter season crops are planted in November and harvested in April. Such crops are wheat, barley, gram, pea and mustard.
- (v) Kharif crops or summer season crops are planted in June and harvested in October. Such crops are maize, groundnut, soyabean, cotton, jute, etc.
- (vi) Irrigation is the alternative source of water, other than rainwater and utilised to supply required and timely water to crops for optimum productivity.
- (vii) Agronomy deals with rearing and management of crop plants. Horticulture deals with the study of fruits and flowering plants, their growth and development.



2. Manure and fertilizers

- (i) Manure and fertilizers are the main sources of nutrients supply to crops.
- (ii) The organic matter prepared by the decomposition of animal excreta and plant waste that supplies small quantities of nutrients to the soil, is called manure.
- (iii) Fertilizers are commercially produced plant nutrients that supply nitrogen, phosphorus and potassium to soil to maintain its fertility. Fertilizers give short term benefits while manure give long term benefits.
- (iv) Organic farming is a farming system with minimum or no use of chemicals as fertilisers, herbicides, pesticides etc., and with a maximum input of organic manures, recycled farm wastes and bio-agent, with healthy cropping system.
- (v) Thirteen nutrients are essential for crops. Of these, six are required in large quantities and are known as macronutrients whereas seven nutrients are required in small quantities and are known as micronutrients.

3. Animal Husbandary?

- (i) The scientific management of animal livestock is called animal husbandary. It includes proper care and management of farm animals such as shelter, feeding, breeding and disease control.



- (ii) Cattle farming includes rearing and breeding of cows and buffaloes for obtaining milk, meat and leather.
- (iii) Poultry farming is done to raise domestic fowls, Poultry production includes egg production and broiler production for poultry meat.
- (iv) Pisciculture deals with the production of fishes. Blue revolution is related to the enhanced production of fish, shellfish, prawns, crabs and shrimps.

4. Apiculture

The practice of rearing, caring and management of honeybee for obtaining honey and bee wax is called apiculture.

5. Hybridisation and emasculation:

- (i) Hybridisation refers to crossing between genetically dissimilar plants.
- (ii) In a bisexual flower, the stamens are removed before they dehiscence or open. It is called emasculation.