

Chapter-1 (Crop production)

Agriculture:- The process of growing crops

on large scale is called agriculture. It deals with the mass production of crops plants and animals useful for human beings.

Horticulture:-

It is a branch of agriculture. Horticulture deals with the production of vegetables, fruits and ornamental plants. For example potato, tomato, cabbage, apple, guava, rose, marigold etc.

Crop plants:-

Plants of the same kind when cultivated at the same place on a large scale for food, fibre or any other useful product are called crops.

Crop plants

Examples

Cereals

wheat, paddy, maize

Pulses

Gram, pea, bean, moong

Vegetables

Cauliflower, pumpkin, tomato

Fruits

Apple, mango, pear, guava

Spices

Cardamom, black pepper, Turmeric

Fibre crops

Cotton, jute, hemp

Oil crops

Mustard, coconut, castor

Sugar crops

Sugarcane, sugar beet

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Cropping Patterns:-

The cropping patterns are of two types.

- ① Kharif crops (ii) Rabi crops.

1- Kharif crops:-

The crops that are sown in the rainy season are called kharif crops.

Kharif crops are sown at the beginning of the monsoon season (June/July) and harvested at the end of monsoon (Sep/Oct.)

for example: rice, maize, soyabean, groundnut, cotton etc.

- 2- Rabi crops:- The crops that are sown in the winter season (Oct/Nov) are called rabi crops. Rabi crops are harvested in March/April. Some rabi crops are, wheat, mustard, gram, pea, linseed etc.

Agricultural Practices:-

The major steps involved in the process are listed below.

(i) Preparation of soil.

This is done by ploughing or digging and levelling. Ploughs are either drawn by bullocks or ~~are~~ driven by tractors.

(ii) Selection of seeds and sowing.

Farmers prefer to use seeds which give a high yield. Good quality seeds are clean and healthy.

There are basically two methods of sowing seeds (i) broadcasting (ii) seed drill.

Transplantation:- Some crops like paddy and tomato are not sown directly in the field. They are first germinated in nurseries and then seedlings are transferred in main field. This process is known as transplantation.

(3) manuring:- Various nutrients are required by the crops for their growth and development. They absorb them from soil. This can be replenished by adding manures and fertilisers to the soil.

Differences between manure and fertiliser.

(i) A fertiliser is an inorganic salt.	(i) Manure is a natural substance obtain by the decomposition of cattle dung, human waste and plant residues.
(ii) A fertiliser is prepared in factories.	(ii) manure can be prepared in the fields.
(iii) A fertiliser does not provide any humus to the soil.	(iii) Manure provides a lot of humus to the soil.

(4) Irrigation:-

The process of supplying water to crops in the field at different intervals is called irrigation.

The two main sources of irrigation are ~~traditional~~ traditional methods and modern methods.

Traditional methods:- They are the pulley system, chain pump, rahat and dhekli.

Modern methods:-

There are four modern methods of irrigation commonly used in India.

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| (i) Furrow irrigation | (iii) Sprinkler irrigation |
| (ii) Basin irrigation | (iv) Drip irrigation. |

(5) Protection from Weeds and Pests

Weeding: Weeds are the unwanted plants which grow along with the main crops. The process of removing weeds from the field is called weeding.

Some common weeds are wild oats, grass, Chaulai, Hiran khur, etc.

Weeds may be removed manually and by adding weedicides (parathion, metachlor, etc.)

Pest Control:-

Pests are organisms that attack the damage crops. They may be rodents (rats), insects (locusts), stray animals and birds.

Crops are also attacked by bacteria, fungi, and viruses.

Some pesticides are DDT, atrazine and diuron.

Harvesting: The process of cutting and gathering a matured crop is known as harvesting.

It is done manually with the help of sickle or by a harvester machine.

Threshing

The process of separating the grain from the harvested stalk or hay is known as threshing.

It is done with the help of animals and threshing machine.

Storage:- There are two different methods

(i) Dry storage: - In this method, food grains are dried in the sun to bring down the moisture content below 14% and fill up in bags and transferred to godowns.

(ii) Cold storage: - Food materials are usually stored at low temperature. It is used for storage of food material that have very short shelf life. p. 10

Assignment

Q.1 Name the group to which the following crops belong

- (i) wheat, millet, ragi, oats — — — — —
 (ii) Tomato, turnip, cabbage, ginger — — — — —
 (iii) Tea, coffee, cocoa — — — — —
 (iv) Pea, gram, beans — — — — —

Q.2 Fill in the blanks.

- (i) The kind of crop grown only for profit is called — — — — —
 (ii) — — — — — crop are harvested in October.
 (iii) The branch of agriculture concerned with the cultivation of fruits, vegetables and ornamental plants is called — — — — —
 (iv) Unwanted plants like weeds should be removed as they compete with the main crop for — — — — — and — — — — —
 (v) In — — — — — type of irrigation water is sprayed on the plants using rotating sprinklers.

Q.3 Write true or false!

- (i) Cereals provide the staple food for all the people in the world.
 (ii) Ploughing is the process of loosening and turning over of soil.
 (iii) Small plantlets in seed beds are called seedlings.
 (iv) Seeds germinate in dry soil only.
 (v) Scattering of seeds by hand is called broadcasting.

Q.4 Answer the following questions in brief.

- (i) List the steps involved in preparation of soil for cultivation.
 (ii) What are traditional methods of irrigation?
 (iii) What is agriculture? List the stages in this process.
 (iv) What is weeding? Why is it necessary?
 (v) What are different methods of sowing seeds?