

Crop production and Management

1. Select the correct word from the following list and fill in the blanks.

float, water, crop, nutrients, preparation

Answer:

(a) The same kind of plants grown and cultivated on a large scale at a place is called crop.

(b) The first step before growing crops is preparation of the soil.

(c) Damaged seeds would float on top of water.

(d) For growing a crop, sufficient sunlight and nutrients and water from the soil are essential.

2. Match items in column A with those in column B.

Column A	Column B
(i) Kharif crops	(a) Food for cattle
(ii) Rabi crops	(b) Urea and super phosphate
(iii) Chemical fertilisers	(c) Animal excreta, cow dung urine and plant waste
(iv) Organic manure	(d) Wheat, gram, pea
	(e) Paddy and maize

Answer:

Column A	Column B
(i) Kharif crops	(e) Paddy and maize
(ii) Rabi crops	(d) Wheat, gram, pea
(iii) Chemical fertilisers	(b) Urea and super phosphate
(iv) Organic manure	(c) Animal excreta, cow dung urine and plant waste

3. Give two examples of each.

(a) Kharif crop

(b) Rabi crop

Answer :

(a) Kharif crop: The crops which are sown in the rainy season are called kharif crops. The rainy season in India is generally from June to September.

Examples of kharif crop: Paddy, Maize, Groundnut, Soyabean and Cotton

(b) Rabi crop : The crops grown in the winter season are called rabi crops. Their time period is generally from October to March.

Examples of rabi crops: Wheat, Gram, Pea, Mustard and Linseed

4. Write a paragraph in your own words on each of the following.

(a) Preparation of soil (b) Sowing (c) Weeding (d) Threshing

Answer :

(a) **Preparation of soil** : Before crops are planted, the soil must be prepared. This method is usually employed for loosening the soil to allow the root to penetrate deep into it. Loosening of soil helps in the growth of several microbes, earthworms etc which enrich the soil with humus and other essential nutrients. The plants require nutrient for proper growth and functional. The process of loosening is called ploughing or tilling. The main tools used for this purpose are the plough, hoe, cultivator, and leveller.

(b) **Sowing** : Sowing is the most important part of crop production. It is process of placing the seed in or on the soil for future growth. Before sowing, good quality seeds are selected. Good quality seeds are clean and healthy seeds of a good variety.

Sowing is usually done with help of either traditional tools or seed drilling. The tool used traditionally for sowing seeds is shaped like a funnel and seeds uniformly at proper distances and depths. It ensures that seeds get covered by the soil after sowing.

(c) **Weeding** : Undesirable plants may grow naturally along with the crop are called weeds. The removal of weeds is called weeding. Weeding is necessary since weeds compete with the crop plants for water, nutrients, space and light. Thus, they affect

the growth of the crop. Some weeds interfere even in harvesting and may be poisonous for animals and human beings.

(d) **Threshing:** In the harvested crop, the grain seeds need to be separated from the chaff. This process is called threshing. This is carried out with the help of a machine called 'combine' which is in fact a combined harvester and thresher.

5. Explain how fertilizers are different from manure.

Answer:

Fertiliser	Manure
A fertiliser is an inorganic salt.	Manure is a natural substance obtained by the decomposition of cattle dung, human waste and plant residues.
A fertiliser is prepared in factories.	Manure provides a lot of humus to the soil.
A fertiliser does not provide any humus to the soil.	Manure provides a lot of humus to the soil.
are very rich in plant nutrients like nitrogen, phosphorus and potassium.	Manure is relatively less rich in plant nutrients.

6. What is irrigation? Describe two methods of irrigation which conserve water.

Answer:

Irrigation: Irrigation is the process by which water is supplied to crops at different intervals. The time and frequency of irrigation varies according to season, crops and soil types. There are various source of irrigation such as wells, canals, rivers, dams lakes and ponds.

Two methods of Irrigation which conserve water :

(i) **Sprinkler System:** This system is more useful on the uneven land where sufficient water is not available. The perpendicular pipes, having rotating nozzles on top, are joined to the main pipeline at regular intervals. When water is allowed to flow through the main pipe under pressure with the help of a pump, it escapes from the rotating nozzles. It gets sprinkled on the crop as if it is raining. Sprinkler is very useful for sandy soil.

(ii) **Drip system:** In this system, the water falls drop by drop just at the position of the roots. So it is called drip system. It is the best technique for watering fruit plants,

gardens and trees. The system provides water to plants drop by drop. Water is not wasted at all. It is a boon in regions where availability of water is poor.

7. If wheat is sown in the kharif season, what would happen? Discuss.

Answer:

Wheat is a rabi crop, which is grown in the winter season . Rabi crops are generally sown from October to March and require less water, low temperature, less humidity and moderate sun shine. Whereas kharif crops are sown in the rainy season (June to September) require a lot of water, excess temperature, humidity. Therefore, If wheat is sown in the kharif season, due to entirely adverse climatic conditions it will not yield any crop.

8. Explain how soil gets affected by the continuous plantation of crops in a field.

Answer:

Continuous growing of crops in a field makes the soil poorer in certain nutrients such as nitrogen, potassium, phosphorus, etc. Plants require nutrients to grow and functioning. When a farmer continues to grow crops one after the other, then all nutrients available in soil reduce and then crop yield decreases automatically, Therefore, farmers have to add manure to the fields to replenish the soil with nutrients.

9. What are weeds? How can we control them?

Answer:

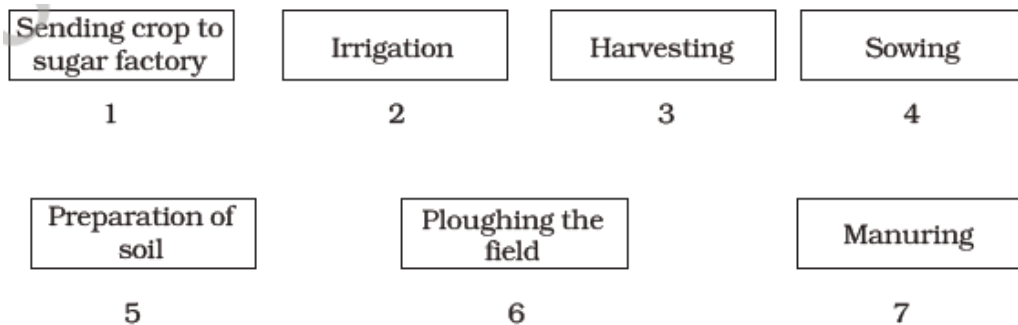
Undesirable plants may grow naturally along with the crop are called weeds. The removal of weeds is called weeding. Xanthium, Parthenium, etc. are some common weeds. Weeds compete with the crop for nutrients, light, and space. As a result, crop plants get lesser nutrients, light, and space for their development. This in turn, reduces their productivity. Thus, various weeding methods are employed.

Some important weeding methods are:

- Weeds can be controlled using weedicides. It is a chemical, which is sprayed in the fields to kill all available weeds. Weedicides are not harmful to crops.

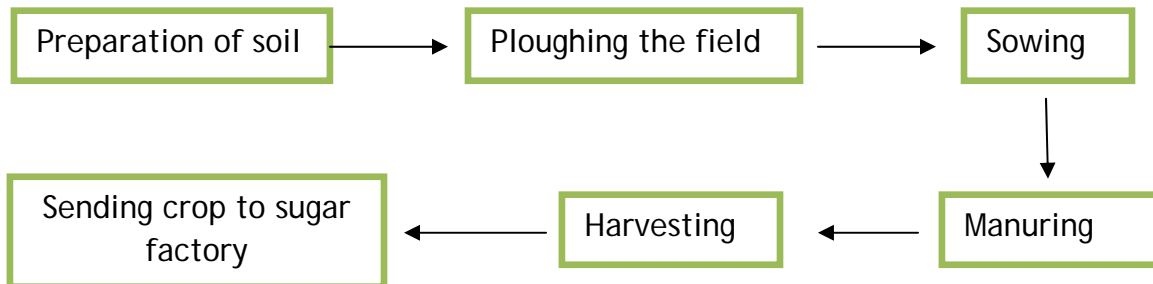
- Tilling before sowing of crops also helps in removing weeds. Tilling uproots the weeds. The best time for the removal of weeds is before they produce flowers and seeds.
- The manual method of removing weeds is with the help of a khurpi. It involves regular uprooting or cutting of weeds close to the ground.

10. Arrange the following boxes in proper order to make a flow chart of sugarcane crop production.

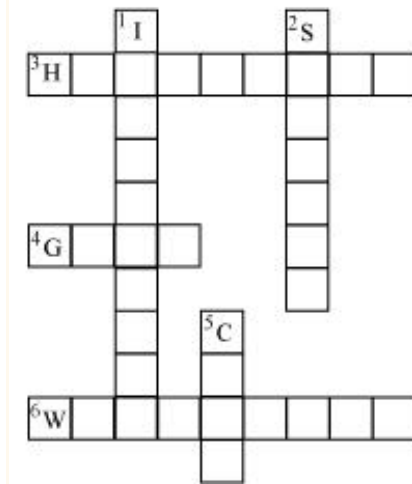


Answer:

Flow chart of sugarcane crop production:



11. Complete the following word puzzle with the help of clues given below.



Down

1. Providing water to the crops.
2. Keeping crop grains for a long time under proper conditions.
5. Certain plants of the same kind grown on a large scale.

Across

3. A machine used for cutting the matured crop.
4. A rabi crop that is also one of the pulses.
6. A process of separating the grain from chaff.

Answer:

Down: 1. IRRIGATION 2. STORAGE 5. CROP

Across : 3. HARVESTOR 4. GRAM 6. WINNOWER

