

CHAPTER-1

CROP PRODUCTION AND MANAGEMENT

INTRODUCTION:

Basic terms:

- i. Agriculture: Agriculture is the science and art of agriculture which includes soil cultivation, production of crops, plantation of trees, livestock enhancement and fisheries.
- ii. Crop: Same kind of plants cultivated at a place is called crop.
- iii. Kharif crops: The crops which are sown in the rainy season are called Kharif crops. (June to September)
Example: Paddy, maize, soyabean, groundnut and cotton etc.
- iv. Rabi Crops: The crops grown in the winter season (October to March) are called rabi crops.
Example: Wheat, gram, pea, mustard and linseed.
- v. Ploughing: The process of loosening and turning of the soil is called tilling or Ploughing.

- VI. Manure: Manure is an organic substance obtained from the decomposition of plant or animal wastes and are added to the soil for the healthy growth of plants.
- VII. Fertilizers: These are the chemical substances which are rich in a particular nutrient.
- VIII. Irrigation: This is the agricultural process in which water is supplied to crops at different intervals.
- IX. Weeds: The undesirable plants which may grow naturally along with the crops are called weeds.
- X. Weedicides: The weeds are controlled by using certain chemicals, called weedicides. Example: 2-4, D.
- XI. Threshing: The process of separating chaff from the seeds with the help of machine is called threshing.
- XII. Winnowing: It is a manual process of separation of grain and chaff.

Exercise

Q1: Select the correct word from the following list and fill in the blanks.

Float, water, crop, nutrients, preparation

- a. The same kind of plants grow on a large scale at place is called crop.
- b. The first step before growing crop is preparation of the soil.
- c. Damaged seeds would float on top of water.
- d. For growing a crop, sufficient sunlight, water and nutrients from the soil are essential.

Q2: Match the column

A

B

- i. Kharif crops → Paddy and Maize
- ii. Rabi crops → Wheat, gram, pea
- iii. Chemical fertilizers → Urea and super phosphate
- iv. Organic manure → Animal excreta, cow dung, urine and plant waste

Q3. Give two examples of each.

- a. Kharif crop: Paddy, maize
- b. Rabi crop: Wheat, gram

Q4: Write a paragraph in your own words on each of the following.

a. Preparation of Soil.

It is the first step before growing a crop. First task in the process is to turn the soil and loosen it. The process of loosening and turning of soil is called tilling or ploughing which is done by a plough. Ploughs are made of wood or iron. The plough fields may have big pieces of soil called clumps. These clumps are broken and the field is levelled for sowing and for irrigation.

b. Sowing: It is the process of putting seeds in the soil. For this purpose good quality seeds are selected which are clean, healthy of good variety and give high yield. Tools for sowing seeds are traditional tools shaped like funnel and a seed drill.

c. Weeding: In a crop field many other undesirable plants may grow naturally along with the crop. These are called weeds. Weeds are to be removed to protect the crops. The process of removal of weeds is called weeding. If weeding is not done, the growth of the crop is adversely affected.

d. Threshing: When the crop matures, they are cut. This process is called harvesting. After harvesting the crops are threshed for removing grain seeds from the chaff.

Q5: Explain how fertilizers are different from manure.

	Fertilizer	Manure
i.	Fertilizer is an inorganic substance.	Manure is prepared Organic substance.
ii.	Fertilizer is prepared in the factories.	Manure is prepared in the fields.
iii.	Fertilizer does not provide any humus to the soil.	Manure provide a lot of humus to the soil.
iv.	Fertilizers are very rich in plant nutrients.	Manure is not very rich in plant nutrients.

Q6: What is irrigation? Describe two methods of irrigation which conserve water.

Ans: The supply of water to crops at different intervals is called irrigation.

Two methods of irrigation which conserve water are:

i. Traditional Methods of Irrigation

- a. By Moat (pulley system)
- b. By chain pump
- c. By dhakli (lever system)
- d. Rahat

ii. Modern Method of irrigation

i. Sprinkler system: In this system water is sprinkled by the rotating nozzles of the perpendicular pipes which are joined to the main pipe line at regular intervals.

ii. Drip system: This is the system of irrigation, in which the water falls drop by drop just at the position of the roots of the crops.

Q7: If wheat were sown in Kharif season, what would happen? Discuss.

Ans: Kharif crops need lot of rainfall, whereas wheat needs winter (cold) season and not heavy rainfall. So, if wheat were sown in Kharif season, the crop will be damaged due to heavy rainfall as well as collection of water in the field.

Q8: Explain how the soil gets affected by the continuous plantation of crops in a field.

Ans: Continuous growing of crops makes the soil poorer in certain nutrients. To avoid this, a method of crop-rotation is adopted, which maintains the nutrients of the soil intact.

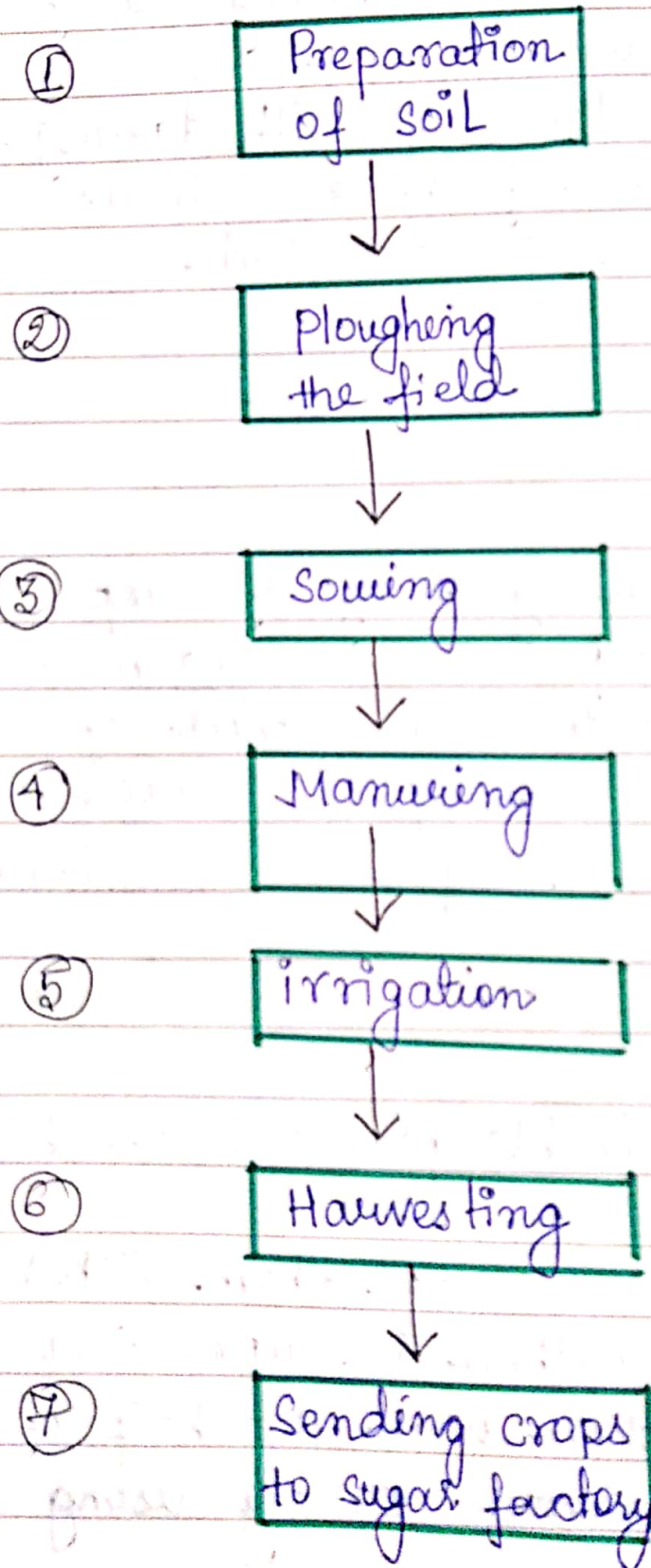
Q9: What are weeds? How can we control them?

Ans: The undesirable plants in the field are called weeds.

We can control them either by manual method i.e. uprooting or cutting them with the help of khurpi or a harrow. or by using weedicides.

Q10: Arrange the following boxes in proper order to make a flow chart of sugarcane crop production:

Ans:



Q11:-

Word Puzzle

- Down:-
1. Providing water to the crop
 2. Keeping crop grains for a long time under proper conditions.
 3. 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.

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