

## CBSE NCERT Solutions for Class 8 Science Chapter 1

### Back of Chapter Questions

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

float, water, crop, nutrients, preparation

- (a) The same kind of plants grown and cultivated on a large scale at a place is called \_\_\_\_\_.
- (b) The first step before growing crops is \_\_\_\_\_ of the soil.
- (c) Damaged seeds would \_\_\_\_\_ on top of the water.
- (d) For growing a crop, sufficient sunlight and \_\_\_\_\_ and \_\_\_\_\_ from the soil are essential.

**Solution:**

- (a) crop
- (b) preparation
- (c) float
- (d) water, nutrients

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 fertilizers	(c)	Animal excreta, cow dung, urine and plant waste
(iv)	Organic manure	(d)	Wheat, gram, pea
		(e)	Paddy and maize

**Solution:**

Column A	Column B

(i)	Kharif crops	(e)	Paddy and maize
(ii)	Rabi crops	(d)	Wheat, gram, pea
(iii)	Chemical fertilizers	(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

**Solution:**

- (a) Kharif crops: Paddy, maize
- (b) Rabi crops: Wheat, gram

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

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

**Solution:**

- (a) Preparation of soil:

The first step in growing a crop plant is the preparation of the soil

Preparation of soil starts with loosening and turning the soil so that the roots of the plants can penetrate deep into the soil.

The loosening of the soil helps in the growth of several soil microbes, earthworms, etc., which enrich the soil with humus and other essential nutrients. As plants require nutrients for their proper growth and functioning.

The process of loosening is called tilling or ploughing the soil. Tilling or ploughing of soil brings the nutrient-rich soil to the top. As the

plants grow on the top layer so it utilizes the maximum nutrients from the top layer of the soil.

(b) Sowing:

Sowing is another important step in crop production.

It is the process of placing the seed in or on the soil in order to obtain the crop.

Clean and healthy seeds which are good in quality are chosen. Selection of good quality seeds helps in improving the crop yield.

There are two methods used by the farmers for sowing seeds they are:

Traditional Method:

Sowing is usually done with the help of either a traditional tool or a seed drill. The traditional tool is shaped like a funnel was used to place the seeds 2- 3cm deep into the soil. It was used earlier for sowing seeds.

Seed drill:

Seed drill that makes the use of tractors are used for sowing seeds. It places the seed at a proper depth and interval. It also ensures that the seeds are covered with the soil so that they are protected from birds. Use of this instrument saves a lot of time and labor.

(c) Weeding:

Undesirable plants that grow along with the crop are known as weeds. Weeding is the process of removing these weeds from the field as they compete with the crop plants for nutrients, light, and space. As a result, crop plants get lesser nutrients, light, and space for their development. Hence, reducing the crop yield.

There are several methods used by the farmers to remove weeds are:

Weeds can be controlled using weedicides such as 2-4 D. These are the chemicals which are mixed with water and are sprayed in the field. Weedicides destroys the weeds but they do not harm the crops.

Tilling or ploughing the field before sowing of seeds also helps in removing weeds. Tilling uproots the weeds from the field. Weeds should be removed from the field before they flower or produce seeds.

The manual method of removing weeds is with the help of a “kharpi”. It involves regular uprooting or cutting of weeds close to the ground.

(d) Threshing:

Threshing is the process of separating grains or seeds from the chaff. It is done after harvesting the crop. It is usually carried out with the help of a machine known as 'Combine'. This machine is a combined harvester and thresher. It harvests plants as well as cleans grains.

5. Explain how fertilizers are different from manure.

**Solution:**

Fertilizers	Manure
i. Fertilizers are the chemicals substance which are rich in a particular nutrient.	i. Manure is a natural substance prepared by the decomposition of animal excreta and plant wastes.
ii. Fertilizers are inorganic salts	ii. Manure is organic in nature.
iii. They ensure healthy growth and development of plants by providing them with nitrogen, phosphorus, potassium, etc.	iii. They help in enriching the soil with organic matter and nutrients.
iv. Fertilizers should be applied carefully. One should take care of the amount of fertilizer to be applied.	iv. The addition of manure does not require any special guidelines.
v. Fertilizer does not provide humus to the soil.	v. Manure provides humus to the soil and increases soil fertility.
vi. Its excessive use causes water pollution. It cannot replenish organic matter to the soil.	vi. It is safe for the environment and helps in recycling farm wastes.

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

**Solution:**

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

Two methods of irrigation which help in conservation of water are:

a) Sprinkler system:

This system is more useful on uneven land, having fewer water supplies. In this method, water is supplied using pipes to one or more central locations within the field. When water is allowed to flow under high pressure with the help of a pump, it gets sprinkled on the crops.

b) Drip system:

In this system, water is delivered at or near the roots of plants, drop by drop. This is the most efficient method of irrigation as there is no wastage of water at all. This method is important in areas where water availability is poor.

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

**Solution:**

If wheat is sown in the kharif season (from June to October), then the whole crop might get destroyed because of many factors such as:

- i. Lack of optimum temperature, adaptability, availability of pests, etc.
- ii. Kharif season includes the rainy season, which is not favorable for the growth of the wheat crop. Therefore, wheat crop will not be able to survive in the Kharif season.

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

**Solution:**

Due to the continuous plantation of crops in a field soil becomes poor in specific nutrients such as nitrogen, phosphorus, potassium, etc. Plants require nutrients for their proper growth, development, and functioning. When a farmer continues to grow crops one after the other, then all nutrients available in the soil reduce and the crop yield decreases automatically.

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

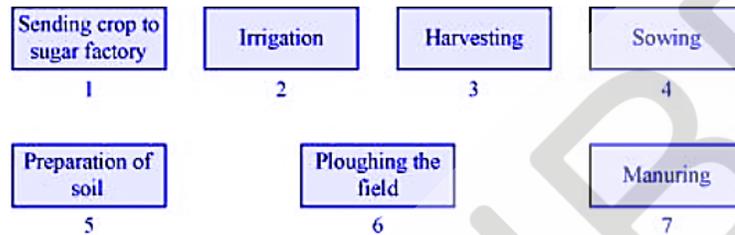
**Solution:**

Undesirable plants that grow along with crop plants are known as 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:

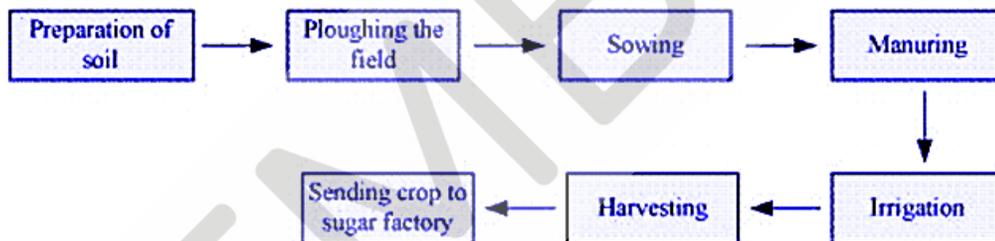
- i. Weeds can be controlled by using chemicals called weedicides which are sprayed in the fields to kill all available weeds. These are not harmful to crops.

- ii. 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.
- iii. 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.



**Solution:**

Flow chart of sugarcane crop production:



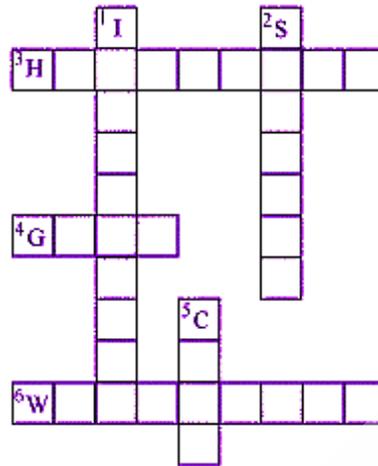
11. Complete the following word puzzle with the help of clues of given below.

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.



**Solution:**

