

VIII SCIENCE LESSON 1 CROP PRODUCTION AND MANAGEMENT

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Key Words:

1. **Agriculture practices:** Various activities performed by the farmers to produce good crops - activities like preparation of soil, sowing, adding manure and fertilizer, Irrigation, protecting from weeds, Harvesting storage are called agriculture practices.
2. **Animal husbandry:** The practice of rearing animals at homes or farms on a large scale for commercial purpose.
3. **Crops:** Plants of same kind are grown at a place on a large scale.
4. **Fertilizers:** These are chemical substances which added to the soil to improve its fertility and provide particular nutrients.
5. **Granaries:** Large scale of storing place of grains to protect them from pests and insects.
6. **Harvesting:** The cutting of mature crop.
7. **Irrigation:** Supply of water to crops at appropriate intervals.
8. **Kharif:** The autumn crop sown at the beginning of the summer rains.
9. **Rabi:** The crops that are sown in winter and harvested in the spring.
10. **Manure:** It is an organic substance obtained from the decomposition of plants and animal wastes.
11. **Plough:** The device used for tilling or ploughing.
12. **Seeds:** It is a small object produced by a flowering plant that is capable of developing into another such plant.
13. **Silo:** A tall metallic tower or pit on a farm used to store grain.
14. **Sowing:** The process of putting the seeds in the soil.
15. **Storage:** The process of keeping seeds safe from spoilage due to moisture, insects, rats and micro organisms for a long time.
16. **Threshing:** The process of separation of grains from the chaff in the harvested plant.
17. **Weeds:** Unwanted plants which naturally grow along with crops.
18. **Weedicide:** The chemical which is used to control weeds.
19. **Winnowing:** It is process of separation of grains and chaff by using winds.

EXERCISES:

1. Give example of each:

- a. **Kharif crop:** Soyabean, Paddy, Maize , cotton, and groundnut.
- b. **Rabi crop:** Wheat, gram, peas, and mustard.

2. Write a paragraph of the following:

- a. **Preparation of soil:** This is the first step of soil. The soil is to turn and loosen. The process of loosening and turning of the soil is called tilling and ploughing. The loose soil allows the roots to breathe easily and loosening of soil brings the nutrient rich soil to the top so that plants can use these nutrients. Manure is added to the soil before tilling. This helps in proper mixing of manure with soil. The ploughed field may have big clumps. These crumbs should be broken. Finally, leveler used to level the ploughed field. Levelling is the field is beneficial for sowing and irrigation.
- b. **Sowing:** It is the process of placing the seed in or on the soil for growth. The seeds that are selected for growing should be of good quality. Sowing is usually done with the help of either a traditional tool is shaped like a funnel. It was used earlier for sowing seeds. Now a days, seed drills that make the use of tractors are used for sowing seeds. This tool disperses seeds uniformly and sows seeds at proper depth. Proper distance between the seeds is necessary to avoid overcrowding. This allows plants to get sufficient sunlight, nutrients and water from the soil.
- c. **Weeding:** The unwanted plants in the crops are called weeds. These weeds absorb the nutrients from the soil. So it is necessary to remove them. Weeds are either removed manually or by mechanical tools. The process of removal of weeds is called weeding. The chemicals which are used to remove the weeds are known as weedicides. (ex) 2,4-D. Methods of control weeds are tilling before sowing of crops, physical removal of weeds by uprooting and by using weedicides.
- d. **Threshing:** It is the process of separating grains or seeds from chaff. It is done after harvesting the crop. It is usually carried out with the help of a

machine known as combine. This machine harvests plants as well as cleans grains.

3. Explain how fertilizers are different from manure:

Fertilizers:

- a. Fertilizers are inorganic substances.
- b. These are prepared in factories.
- c. Fertilizers does not provide any humus to the soil.
- d. Fertilizers are very rich in plant nutrients.
- e. Excess uses of fertilizers harmful and become a source of water pollution.

Manure:

- a. Manures are organic substances obtained from the decomposition of plant and animal wastes.
- b. These can be prepared in fields.
- c. Manures provides a lot of humus to the soil.
- d. Manure is relatively less rich in plant nutrients.
- e. Manure enhances the water holding capacity and improves the texture of the soil.

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

Irrigation: Watering of crops at different intervals.

Water conserving methods of irrigation are sprinkler system and drip irrigation system.

- 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.
- ii. **Drip irrigation system:** In this system, the water falls drop by drop directly near the roots. So it is called drip system. It is the best technique for watering fruits plants, gardens and trees. This system is very useful in regions where availability of water is poor.

5. If wheat is sown in kharif season, What would happen? Discuss:

Wheat is a rabi crop. It does not require much water to grow. Kharif season means rainy season. So, if we sow wheat in the kharif season, the seeds would get destroyed in excess of water due to rainy season.

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

Plants need nutrients and water to grow and they get nutrients in the form of minerals and salts from soil. If we sow continuously in a field the lacking of nutrients takes place in the soil and field becomes unfertile. Thus the soil is unable to sustain any further healthy and good crop.

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

Weeds: Undesirable plants which grow naturally along with crops.

Control of weeds: We can adopt many ways to remove and control the growth of weeds.

- i. Filling before sowing of crops help in uprooting and killing of weeds.
- ii. By using Khurpi, weeds are removed manually.
- iii. A seed drill also used to uproot weeds.
- iv. Weeds are also controlled by using weedicides.

8. Name the following:

- i. Providing water to the crops – **Irrigation.**
- ii. Keeping crop grains for a long time under proper conditions – **storage.**
- iii. Certain plants of the same kind grown on a large scale – **Crop.**
- iv. A machine used for cutting the matured crop – **Harvester.**
- v. A rabi crop that is also one of the pulses – **Gram.**
- vi. A process of separating the grain from chaff – **winnowing.**