

Class - 8th

Science

Chapter – 1

Crop Production and Management

Exercises

Section I

A. Select and tick the correct option :

Ans. 1. b

2. b

3. c

4. c

B. Fill in the blanks :

Ans. 1. The **crop** refers to anything produced from soil.

2. The process of loosening and turning up of the soil is called **tilling or ploughing**.

3. **Farmyard manure** is the most valuable organic matter commonly applied to the soil.

4. **Pesticides** include insecticides and rodenticides.

5. Fish liver oil is rich in **vitamin A and vitamin D**.

C. Write true or false:

Ans. 1. false

2. true

3. true

4. false

5. true

Section II

A. Very short answer questions:

1. What is agriculture?

Agriculture is the technology of food production from plants by sowing seed in the soil and obtaining, procuring and storing plant produce.

2. Name some commonly used agricultural implements.

Some commonly used implements are – Plough , Seed drill , Khurpa , Hoe , Cultivator.

3. Define broadcasting.

Broadcasting is the method of sowing seeds manually by hand in the field.

4. Why do we need to protect crops from pests and diseases ?

We need to protect crops from pests and diseases because they harm the crop plants and bring down the production.

5. What is nitrogen fixation?

The nitrogen fixation involves the fixing of the atmospheric nitrogen into simple nitrogen compounds such as ammonia and oxides of nitrogen by the action of atmospheric factors such as lightning or by simple living organisms such as free-living nitrogen-fixing bacteria.

B. Short answer questions:

1. Summarize the history of agriculture.

Early man was a nomad and lived in caves. He wandered in small groups from place to place for food and shelter. He used to gather fruits, nuts, leaves, stems and roots. He also used stone tools for hunting animals and ate them raw. Therefore, the early man was called a hunter-gatherer.

Around 10,000 BC man by chance discovered that seeds can be sown to grow plants. This was the beginning of agriculture and also the beginning of settled life. Man settled close to river banks and water bodies, and thus farming communities developed. Gradually, man discovered tilling, planting and harvesting the right species of plants and rearing animals for his needs.

2. Give an account of some commonly used manures.

Some important and commonly used manures are:

Farmyard manure : This type of manure mainly consists of animal dung, straw, leaves etc.

Green manure : It consists of agricultural wastes, commonly from the leguminous crops which is ploughed back into the soil.

Compost manure : Compost is made from the cattle-shed wastes and dry leaves etc.

3. What are the advantages of transplantation?

Transplantation method has the following advantages:

- Transplantation enables selective cultivation of healthy seedlings. This results in better crop production.
- Transplantation permits better root penetration into soil.
- Transplantation allows better shoot development.

4. Define sprinkler system and drip irrigation.

Sprinkler system : This method is used where the soil cannot retain water for long or where sufficient water is not available. Rotating nozzles are attached to perpendicular pipes at regular intervals. Water is sprinkled on crop as if it is raining.

Drip system : This system involves providing water drop by drop at the roots of the plants. Thus water is not wasted. This system is practiced in regions where water availability is poor.

5. What type of food do we get from animals?

Though we get most of our food from crop plants, animals also provide us food. The food provided by animals consists of milk, eggs and meat. The food obtained from animals is very rich in proteins. In fact, animal food provides certain proteins which are not present in plant foods. Most of the food obtained from animals also contains a good amount of fat but it contains very little of carbohydrates.

C. Long answer questions :

1. Describe any two agricultural implements in details.

Two of the agricultural implements are as follows :

Plough : The plough is used for loosening and turning of the soil. Ploughs are made of wood or iron. Traditional ploughs, made of wood or iron, are driven by animals or by a tractor. The tractor plough is called cultivator. A plough contains a thick triangular iron strip called ploughshare. The main part of the plough is a long of wood which is called plough shaft. There is handle at the lower end of the shaft and a beam at the upper end. The beam is placed over the animal necks. Nowadays, plough made of iron are being used.

Hoe : The implement called hoe is used for removing weeds and for loosening the soil. It consists of a long rod of wood or iron. A strong broad and bent plate of iron is fixed at one end of the long rod. This bent plate acts like a blade. At the other end of the rod a beam is attached. The beam is placed on the bullocks necks.

2. Differences between a manure and a Fertilizer.

1.

A manure is natural substance

which is formed from dead, decaying organic matter and animal wastes.

A fertilizer is a salt or an inorganic compound which is formed in factories to chemicals.

2.

A manure provides more than one nutrient to the soil.

A fertilizer provides a specific

nutrient to the soil.

3.

A manure acts very slowly on soil. A fertilizer is quick in action.

4.

If applied in large quantities, it does not harm the plant.

If applied in large quantities, it may spoil the plants.

3. How can we protect our crops?

Organisms such as rodents and insects which damage crops are called pests. Insects such as termites eat the roots of plants. Locusts fly in swarms, attacking the sugar cane and wheat crops. Pests can be controlled by spraying chemicals known as pesticides.

Pesticides include insecticides and rodenticides. Insecticides like DDT, BHC and malathion kill insects while rodenticides like zinc phosphide and warfarin kill rodents. Microorganisms bacteria, fungi and viruses cause numerous diseases in crops. For example, wheat rust, smut and potato blight are caused by fungi. Whiting of plants is caused by a bacterium which blocks xylem, the water conducting tissue in plants. Fungi are destroyed by spraying fungicides like copper Sulphate.

4. Write a note on the storage of food.

Proper storage of food grains keeps away pests. Some ways to prevent pests from damaging food grains are :

- Grains should be stored in airtight containers in a cool dry place.
- Dried neem leaves and turmeric are sometimes used when storing food grains as they keep pests such as insects away.
- Right levels of temperature and moisture must be maintained to prevent growth of pests. The grains should be properly dried in the sun to reduce moisture content before they are stored. Large-scale storage is done in huge granaries and silos.

5. Describe the nitrogen cycle.

Nitrogen is an important constituent of proteins, the bodybuilding foods and the nucleic acids, the carriers of the genetic information from one generation to the next. However, though required for growth and development, most living organisms cannot utilize it directly, despite its 78% presence in air by volume. It has first to be transformed into nitrogen-rich compounds. The different ways used to fix nitrogen in gaseous state back into the atmosphere on decomposition of nitrogenous compound make up the global nitrogen cycle.

The nitrogen cycle involves three steps :- Nitrogen fixation, nitrification and denitrification.

