

Class 8 Science Chapter 1 Important Questions

Class 8 Science Chapter 1 Important Questions Set – 1

What do you mean by production and management?

Anything which is produced or create with the help of people or machine, called “production”.

To controlling or organizing any system or thing is called “management”.

Production and management deals with a set of activities that embrace planning, coordination, supervision, control and decision-making activities which contribute the growth of people and country.

What are the necessary element or steps to provide food for a large population?

In order to provide food for a large population— regular production, proper management and distribution of food is necessary.

“Despite this diversity two broad cropping patterns can be identified”. What are the diversity?

India is a vast country. The climatic conditions like temperature, humidity and rainfall vary from one region to another. Although these are referred as diversity.

Crop

When plants of the same kind are grown and cultivated at one place on a large scale, it is called a crop. For example, crop of wheat means that all the plants grown in a field are that of wheat. Crops are of different types like cereals, vegetables and fruits etc.

Class 8 Science Chapter 1 Important Questions Set – 2

What is the first step before growing a crop into the soil? Why it is so important?

The preparation of soil is the first step before growing a crop.

One of the most important tasks in agriculture is to turn the soil and loosen as preparation of soil. This allows the roots to penetrate deep into the soil. The loose soil allows the roots to breathe easily even when they go deep into the soil. The loosened soil helps in the growth of earthworms and microbes present in the soil. These organisms are friends of the farmer since they further turn and loosen the soil and add humus to it. Since only a few centimeters of the top layer of soil supports plant growth, turning and loosening of soil brings the nutrient-rich soil to the top so that plants can use these nutrients. Thus, turning and loosening of soil is very important for cultivation of crops.

“Before sowing the seeds it is necessary to break soil to the size of grains to get better yield”. Which type of tools are used for this purpose? Explain the construction of these tools.

This is done with the help of various tools. The main tools used for this purpose are the plough, hoe and cultivator.

Plough: This is being used since ancient times for tilling the soil, adding fertilisers to the crop, removing the weeds, scraping of soil, etc. This implement is made of wood and is drawn by a pair of bulls or other animals (horses, camels, etc.). It contains a strong triangular iron strip called ploughshare. The main part of the plough is a long log of wood which is called a plough-shaft. There is a handle at one end of the shaft. The other end is attached to a beam which is placed on the bulls' necks. One pair of bulls and a man can easily operate the plough.

The indigenous wooden plough is increasingly being replaced by iron ploughs nowadays.

Hoe: It is a simple tool which is used for removing weeds and for loosening the soil. It has a long rod of wood or iron. A strong, broad and bent plate of iron is fixed to one of its ends and works like a blade. It is pulled by animals.

Cultivator: Nowadays ploughing is done by tractor driven cultivator. The use of cultivator saves labour and time.

With the help of an activity, say how seeds are selected by the farmers?

Take a beaker and fill half of it with water. Put a handful of wheat seeds and stir well.

Wait for some time. There are some seeds which float on water. And there are heavier seeds also which sink in water. Damaged seeds become hollow and are thus lighter.

Therefore, they float on water. This is a good method for separating good, healthy seeds from the damaged ones.

Agricultural Practices

Cultivation of crops involves several activities undertaken by farmers over a period of time. These activities or tasks are referred to as agricultural practices. These activities are listed below.

- (i) Preparation of soil,
- (ii) Sowing,

- (iii) Adding manure and fertilisers,
- (iv) Irrigation,
- (v) Protecting from weeds,
- (vi) Harvesting and
- (vii) Storage.

Class 8 Science Chapter 1 Important Questions Set – 3

How can we make manure?

Manure is an organic substance obtained from the decomposition of plant or animal wastes. Farmers dump plant and animal waste in pits at open places and allow it to decompose. The decomposition is caused by some microorganisms. The decomposed matter is used as organic manure.

Discuss the process of manuring.

Process of manuring: Soil supplies mineral nutrients to the crop. These nutrients are essential for the growth of plants. In certain areas, farmers grow crop after crop in the same field. The field is never left uncultivated or fallow. Continuous growing of crops makes the soil poorer in certain nutrients. Thus, improper or insufficient manuring results in weak plants. Therefore, farmers have to add manure to the fields to replenish the soil with nutrients. This process is called manuring.

“But excessive use of fertilizers has made the soil less fertile”. Explain the statement.

Fertilisers are chemical substances which are rich in a particular nutrient. Fertilisers are produced in factories. Some examples of fertilisers are— urea, ammonium sulphate, super phosphate, potash, NPK (Nitrogen, Phosphorus, Potassium). The use of fertilisers has helped farmers to get better yield of crops such as wheat, paddy and maize. But excessive use of fertilisers has made the soil less fertile. Fertilisers have also become a source of water pollution. Therefore, in order to maintain the fertility of the soil, we have to substitute fertilisers by organic manure or leave the field uncultivated (fallow) in between two crops. Therefore, the use of manure improves soil texture as well as its water retaining capacity. It replenishes the soil with all the nutrients.

Manure and Fertilizers

Manure is an organic substance obtained from the decomposition of plant or animal wastes. Fertilisers are chemical substances which are rich in a particular nutrient.

The substances which are added to the soil in the form of nutrients for the healthy growth of plants are called manure or fertilisers.

Class 8 Science Chapter 1 Important Questions Set – 4

Write the difference between fertilizers and manure.

Fertiliser: A fertiliser is an organic salt. A fertiliser is prepared in factories. A fertiliser does not provide any humans to the soil. Fertilisers are very rich in plants nutrients like nitrogen, phosphorus and potassium.

In the other hand:

Manure: Manure is a natural substance obtained by the decomposition of cattle dung, Human waste and plant residues. Manual can be prepared in the fields. Manure provides a lot of humus to the soil. Manure is relatively less rich in plant nutrients.

“The organic manure is considered better than fertilizers”. Discuss, why?

The organic manure is considered better than fertilisers. This is because:

- (i) It enhances the water holding capacity of the soil.
- (ii) It makes the soil porous due to which exchange of gases becomes easy.
- (iii) It increases the number of friendly microbes.
- (iv) It improves the texture of the soil.

What is the role of water in crop production?

All living beings need water to live. Water is important for proper growth and development of flowers, fruits and seeds of plants. Water is absorbed by the plant roots. Along with water, minerals and fertilisers are also absorbed.

Plants contain nearly 90% water. Water is essential because germination of seeds does not take place under dry conditions. Nutrients dissolved in water get transported to each part of the plant.

To maintain the moisture of the soil for healthy crop growth, fields have to be watered regularly. The supply of water to crops at different intervals is called “irrigation”.

The time and frequency of irrigation varies from crop to crop, soil to soil and season to season.

Weeds and its Removal

In a field many other undesirable plants may grow naturally along with the crop. These undesirable plants 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.

Class 8 Science Chapter 1 Important Questions Set – 5

Why does storage of crop grains consider as an important task for farmers?

Storage of produce is an important task. If the crop grains are to be kept for longer time, they should be safe from moisture, insects, rats and microorganisms. The fresh crop has more moisture. If freshly harvested grains (seeds) are stored without drying, they may get spoilt or attacked by organisms, losing their germination capacity.

Hence, before storing them, the grains are properly dried in the sun to reduce the moisture in them. This prevents the attack by insect pests, bacteria and fungi.

Generally, farmers store grains in jute bags or metallic bins. However, large scale storage of grains is done in silos and granaries to protect them from pests like rats and insects.

Dried neem leaves are used for storing food grains at home. For storing large quantities of grains in big go-downs, specific chemical treatments are required to protect them from pests and microorganisms.

Paheli wants to practice crop rotation in her field. Suggest a “Rabi crop” and “Kharif crop”. Which will replenish her filled with nitrogen. Which crop replenishes nitrogen and why?

Rabi crops are wheat, pea, mustard while kharif crops are maize, paddy (rice), or soya-bean. These are grown in different seasons and therefore, can very well be rotated alternatively. Pea and soya-bean are leguminous plants which harbour bacteria, i.e. rhizobium in their nodules, thus help in fixing nitrogen.

These nitrogen fixing plants can replenish nitrogen in the field and hence, Paheli can easily practice crop rotation.

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

Soil supplies minerals and nutrients to the crop. These nutrients are essential for the growth of plants. Continuous growing of crops in the same field makes the soil poorer in certain nutrients. This makes the soil infertile. And then, to replenish the soil with nutrients farmers need to add manures to the soil.

Organic Food

The crops that are cultivated using organic substances like manures etc. and prohibit the use of harmful chemical substances like fertilisers, pesticides, weedicides, etc. are called ORGANIC FOOD.

evidyarthi