

CLASS-8

SUBJECT- SCIENCE

BY Mrs GEETA ISWANI

Good Morning students .As you all are aware that we all are going through critical situation.But take care of yourself. I am sending notes of first chapter, if copy is available with you then you can write in class work copy. NCERT BOOK you can download and go through the contents and study material properly.

### 1. CROP PRODUCTION & MANAGEMENT

AGRICULTURE is the practice of growing crops .Plants grown on a large scale are called crops. Those grown for the production of food are called FOOD CROPS.

E.G.S : Cereals, pulses, oil seeds.

Those grown for commercial purposes are called CASH CROPS.

E.G.S: Jute , cotton, rubber.

Crops are classified on the basis of the season of sowing.

1. KHARIF CROPS- Crops like rice ,jute ,maize which are sown during the monsoon .They are harvested around October.
2. RABI CROPS- Crops like wheat, mustard, gram sown in October. They are harvested in the month of March.

Crops need sufficient air ,water ,sunlight and nutrients to grow well.They also need to be protected from diseases .Let us see what farmers do to ensure the healthy growth of crop plants.

### BASIC AGRICULTURAL PRACTICES

- a) Preparing the soil
- b) Sowing seeds
- c) Improving soil fertility
- d) Irrigation
- e) Crop Protection
- f) Harvesting

- a) **PREPARING THE SOIL**

It involves three steps

**PLOUGHING** - A plough is a farm equipment with a curved blade used to loosen and turn the soil. Ploughing loosens the soil and creates air spaces. It also helps the soil retain moisture.

**LEVELLING** – The big chunks of soil are broken and the soil is pressed down lightly with a leveller. This process is called Levelling .It helps to distribute water evenly over the field.

**MANURING** – Some fertilizers and manure are added before the sowing of seeds.

**b)SOWING SEEDS** – Seeds have to be sown at the right depth and at right intervals .Seeds can be scattered over the field by hand - called **BROADCASTING**.

A better way to use a seed – drill. A seed drill has a funnel shaped seed bowl connected to several tubes. The drill is attached to a plough.

### **c)IMPROVING SOIL FERTILITY**

These include adding manure and fertilizers to soil and adopting certain methods of farming.

### **d)IRRIGATION**

The process of providing water to crops.

### **e)CROP PROTECTION**

Crops have to be protected against diseases, pests and weeds.

### **f)HARVESTING**

The process of cutting and gathering a crop. Modern farmers use a harvester, which cuts the crop.

(Class - 8)  
Exercises

**Question 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 water.  
(d) For growing a crop, sufficient sunlight and \_\_\_\_\_ and \_\_\_\_\_ from the soil are essential.

**Answer 1:**

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

**Question 2:**

Match items in column A with those in column B.

- | A                          | B  |
|----------------------------|--|
| (i) Kharif crops           | (a) Food for cattle                                |
| (ii) Rabi crops            | (b) Urea and super phosphate                       |
| (iii) Chemical fertilisers | (c) Animal excreta, cow dung urine and plant waste |
| (iv) Organic manure        | (d) Wheat, gram, pea                               |
|                            | (e) Paddy and maize                                |

**Answer 2:**

- | A                          | B  |
|----------------------------|--|
| (i) Kharif crops           | (e) Paddy and maize                                |
| (ii) Rabi crops            | (d) Wheat, gram, pea                               |
| (iii) Chemical fertilisers | (b) Urea and super phosphate                       |
| (iv) Organic manure        | (c) Animal excreta, cow dung urine and plant waste |

**Question 3:**

Give two examples of each.

- (a) *Kharif crop*                      (b) *Rabi crop*

**Answer 3:**

- (a) *Kharif crop*                      Paddy, maize, soyabean, groundnut, cotton, etc.  
(b) *Rabi crop*                         Wheat, gram, pea, mustard, etc.

**Question 4:**

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

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

**Answer 4:**

(a) *Preparation of soil*

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 it. This allows the roots to penetrate deep into the soil. The loosened soil helps in the growth of earthworms and microbes which are friends of the farmer and add humus to it. Also, turning and loosening of soil brings the nutrient-rich soil to the top so that plants can use these nutrients.



**(b) Sowing**

Sowing is the most important part of crop production. Before sowing, good quality seeds are selected. Good quality seeds are clean and healthy seeds of a good variety. Seeds can be sown manually or by using a sowing machine.

**(c) Weeding**

Weeds are unwanted plants that grow along with crops and removal of weeds is known as weeding. Weeds can be removed either manually by using tools like khurpi or by using weedicides like 2, 4 - D. These are sprayed in the fields to kill the weeds.

**(d) Threshing**

The process of separation of the grains from the chaff is called threshing. This is carried out with the help of a machine called 'combine' which is in fact a combined harvester and thresher.

**Question 5:**

Explain how fertilisers are different from manure.

**Answer 5:**

The main Differences between Fertiliser and Manure are as follows:

S.No	Fertilisers	Manures
1.	A fertiliser is an inorganic salt.	Manure is a natural substance obtained by the decomposition of cattle dung, human waste and plant residues.
2.	A fertiliser is prepared in factories.	Manure can be prepared in the fields.
3.	A fertiliser does not provide any humus to the soil.	Manure provides a lot of humus to the soil.
4.	Fertilisers are very rich in plant nutrients like nitrogen, phosphorus and potassium.	Manure is relatively less rich in plant nutrients.

**Question 6:**

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

**Answer 6:**

The supply of water to crops at different intervals is called *irrigation*. The two methods of irrigation which conserve water are as follows:

**(i) Sprinkler System:**

Under this method, 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 system:**

In this system, the water falls drop by drop just at the position of the roots. It is the best technique for watering fruit plants, gardens and trees. Water is not wasted at all. It is a boon in regions where availability of water is poor.

**Question 7:**

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

**Answer 7:**

Wheat is a *rabi* crop, hence it requires cold climatic conditions to be grown properly. If it is sown in the *kharif* season, it will not grow or may get destroyed due to excessive rains in the *kharif* season.

