

# MAHESH PUBLIC SCHOOL

**Class: 8 Science**

**Revision Notes**

**Chapter – 1**

## **Crop Production and Management**

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

**Crop :** When plants of the same kind are grown and cultivated at one place on a large scale, it is called a crop.

- In India, crops can be broadly categorised into two types based on seasons - Rabi and Kharif crops.
- Sowing of seeds at appropriate depths and distances gives good yield. Good variety of seeds are sown after selection of healthy seeds. Sowing is done by seed drills.
- Soil needs replenishment and enrichment through the use of organic manure and fertilisers. Use of chemical fertilisers has increased tremendously with the introduction of new crop varieties.

- **Basic practices of crop production:**

(i) **Preparation of Soil:** One of the most important tasks in agriculture is to turn the soil and loosen it. The process of loosening and turning of the soil is called tilling or ploughing.

(ii) **Sowing:** Sowing of seeds at appropriate depths and distances gives good yield. Good variety of seeds is sown after selection of healthy seeds. Sowing is done by seed drills.

(iii) **Adding Manure and Fertilisers** Soil needs replenishment and enrichment through the use of organic manure and fertilisers. Use of chemical fertilisers has increased tremendously with the introduction of new crop varieties.

**Fertiliser:** The inorganic compounds containing nutrients such as nitrogen, potassium and phosphorus. They are made in the factories. Example: Urea, ammonium sulphate, potash, etc.

**Manure:** A natural substance prepared from decomposition of plant and animal wastes (cow dung, animal bones, dead leaves, dead insects and vegetable wastes) by the action of microbes.

(iv) **Irrigation :** Supply of water to crops at appropriate intervals is called irrigation.

**Method of Irrigation:**

(a) Tradition methods of Irrigation: Moat, Chain pump, Dheki, Rahat.

(b) Modern methods of Irrigation: Sprinkler system, Drip system.

(v) **Protection from Weeds:** Weeding involves removal of unwanted and uncultivated plants called weeds.

(vi) **Harvesting:** Harvesting is the cutting of the mature crop manually or by machines.

(vii) **Storage** Proper storage of grains is necessary to protect them from pests and microorganisms. Harvested food grains normally contain more moisture than required for storage. Large scale of storage of grains is done in silos and granaries to protect them from pest like rats and insects. Farmers store grains in jute bags or metallic bins. Food is also obtained from animals for which animals are reared. This is called **animal husbandary**.

# Chapter 1. Crop Production and Management

## Worksheet-01

1. Sunflower seeds provide us mainly with :-  
a. Fats      b. Carbohydrates      c. Proteins      d. Vitamins
2. Most commonly grown cereal crop is/are:-  
a. Rice      b. Maize      c. Wheat      d. All the above
3. Crops sown during winters are :-  
a. Rabi crops      b. Kharif crops      c. Mixed crops      d. Cereal crops
4. The method of scattering seeds in the field by hand is :-  
a. Hand picking      b. Transplantation      c. Broadcasting      d. Levelling
5. Match the column :-

a. Horticultural crop	i) Potato
b. Kharif crop	ii) Crotons
c. Rabi crop	iii) Agricultural waste
d. Compost manure	iv) Groundnut
e. Green manure	v) Dry leaves

6. Fill in the blanks :-
  - a. \_\_\_\_\_ is large scale cultivation of vegetable, fruits & flower plants.
  - b. \_\_\_\_\_ is the process of loosening and turning up of the soil.
  - c. \_\_\_\_\_ is the process of supplying water to crops at different intervals.
  - d. \_\_\_\_\_ is result of too much water given to the soil.
  - e. \_\_\_\_\_ is the science dealing with growth of plants and animals for human use.
7. Why is it good to wash food grains before use?
8. Why are manures better than fertilizers?
9. Pick the wrong word out of the following: Pesticide/ Horticide/ Herbicide/ Weedicide/ Insecticide
10. Write the correct words by putting letters in correct sequence-i) wwiinnngo ii) shhtegrin

**Class: 08**  
**Revision Notes**  
**Chapter – 2**  
**Micro-organisms: Friend and Foe**

- **Micro-organisms:** Micro-organisms are too small and are not visible to the unaided eye.
- They can survive under all types of environment, ranging from ice cold climate to hot springs and deserts to marshy lands. They are also found inside the bodies of animals including humans.
- Micro-organisms are found in air, water and in the bodies of plants and animals.
- They may be unicellular or multicellular.
- Micro-organisms are classified into four major groups. These groups are bacteria, fungi, protozoa and some algae.
- Viruses are quite different from other micro-organisms. They reproduce only inside the host organism; bacterium, plant or animal cell.
  
- Based on the significance, micro-organisms can be useful or harmful to us.

Bacteria	Fungi	PROTOZOA	ALGAE	VIRUS
•Useful Lactobacillus	•Useful Yeast	•Useful Tetrahymen pyriformis	•Useful Red algae	•Useful Lambda phage
•Harmful Haemophilus influenza	•Harmful Rhizopus	•Harmful Plasmodium	•Harmful Gymnodiniu m	•Harmful Picorna

### Uses of microorganisms



- Protozoan cause serious diseases like **dysentery and malaria**.
- Some bacteria and blue green algae present in the soil fix nitrogen from the atmosphere and convert into nitrogenous compounds.
- Certain bacteria convert compounds of nitrogen present in the soil into nitrogen gas which is released to the atmosphere.
- **Pathogens:** Some of the microorganisms cause diseases in human beings, plants and animals. Such disease causing microorganisms are called pathogens.
- **Cleaning of Environment:** The microorganisms decompose dead organic waste of plants and animals converting them into simple substances. These substances are again used by other plants and animals. Microorganisms can be used to degrade the harmful and smelly substances and thereby clean up the environment.

## chapter 2. Microorganisms: Friend and Foe

### Worksheet-02

1. Low temperature prevents spoilage of food because it :-
  - a. Retards microbial growth
  - b. Inactivates enzymes
  - c. Both a & b
  - d. Removes water from food materials
2. Which of the following is found to be present in curd?
  - a. Lactobacillus
  - b. Rhizobium
  - c. Lactovirus
  - d. Lactococcus
3. In the given picture the microbe responsible for the spoilage is a :-



- a. Virus
  - b. Protozoa
  - c. Bacteria
  - d. Fungus
4. The microorganism used in preparation of bread is :-
    - a. Yeast
    - b. Adenovirus
    - c. Penicillium
    - d. Blue green algae
  5. Match the column :-

Disease	Transmission by
a. Dengue	i) Infected dog's bite
b. Hepatitis B	ii) Contact
c. Food poisoning	iii) Contaminated water
d. Rabies	iv) Carrier Aedes mosquito bite
e. Small Pox	v) Contaminated food

6. Fill in the blanks:-
  - a. \_\_\_\_\_ are preserved by the use of oil and vinegar.
  - b. \_\_\_\_\_ is the process of heat and cold treatment for preserving milk.
  - c. \_\_\_\_\_ is a dangerous form of food poisoning.
  - d. \_\_\_\_\_ is the oldest method of food preservation.
  - e. Jellies, squashes and jams are preserved by \_\_\_\_\_ syrup.
7. How the percentage of nitrogen in the atmosphere remains more or less constant ?

8. Identify the microorganism in the picture and write any one important feature of it?



9. Pick the odd word out of the following: -HIV, Cholera, Sleeping sickness, Cancer, Citrus canker.
10. Write the correct words by putting letters in correct sequence-i) ttiibcoans ii) gotsenpah