INDIAN SCHOOL AL WADI AL KABIR

Class: VIII	DEPARTMENT OF SCIENCE 2024-25	DATE: 23-10-2024
WORKSHEET NO: 8 WITH ANSWERS	TOPIC: CROP PRODUCTION AND MANAGEMENT	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC:	ROLL NO.

I. OBJECTIVE TYPE QUESTIONS

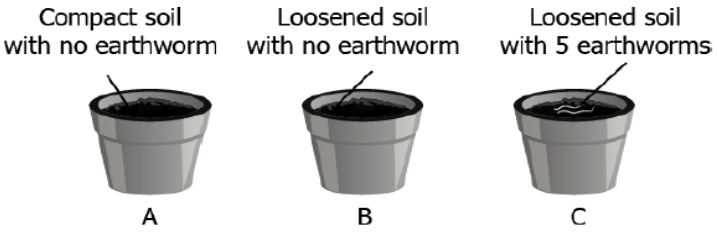
1. In today's world, where water is scarce, which of the following irrigation methods is most feasible and sustainable?

a) Sprinkler system
b) Drip system
c) Tube well
d) Chain pump

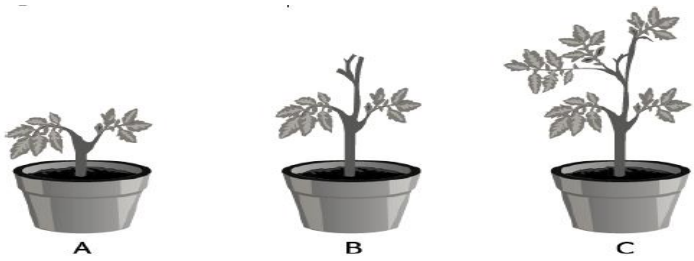
2. Consider the following statements about weeding and identify the incorrect one.

a) Weeding is best done during tilling itself.
b) **Weeding is the process of growing weed.**
c) Weeding is the process of removal of weeds.
d) Weeding is usually done manually or by using weedicides.

3. A student set up an experiment to study the growth of plants using three different soil types.



The student plants a pea seed in each of the three pots. After 2 months, the student observes the growth of the plants as shown.



What can be the student's conclusion from this experiment?

a) Earthworms restrict the growth of plants by consuming them.
b) Compact soil increases the amount of nutrients in the soil
c) Earthworms increase the fertility of the soil.
d) Loosened soil with no earthworm allows maximum growth of the plant.

4. Select the method(s) of irrigation which can be employed on uneven land.

(i) Moat

(ii) Sprinkler

(iii) Chain Pump

(iv) Drip System

a) (ii) and (iv)
b) Only (iv)
c) (i), (ii) and (iii)
d) (i)and (ii)

5. If you were a farmer, which of the following methods would you use to separate good quality and viable grains from a heap of grains after harvest?

a) Checking the weight of grains.
b) Checking grains under sunlight for pores.
c) **Immersing the grains in water.**
d) Sowing seeds and waiting for germination.

6. Arrange the following agricultural practices in the order in which they are followed.

1. Harvesting
2. Sowing
3. Storage
4. Irrigation
5. Preparation of soil

a) 1→2→3→4→5
b) 5→2→4→1→3
c) 2→1→3→5→4
d) 5→3→4→1→2

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below

i) Both A and R are true and R is the correct explanation of the assertion.

ii) Both A and R are true but R is not the correct explanation of the assertion.

iii) A is true but R is false.

iv) A is false but R is true

7. **Assertion (A):** Crop rotation is the method in which crops are rotated at 90 degrees.
   Reason (R): Crop rotation is usually used by farmers so that they can replenish the soil with nutrients.
   iv) A is false but R is true
8. **Assertion (A):** Seed drill ensures that seeds get covered by the soil after sowing.
   Reason (R): Sowing by seed drill takes a lot of time.
   iii) A is true but R is false.
9. **Assertion (A):** Weeds are unwanted plants that grow along with the main crops.
   Reason (R): Weeds compete with the main crops for water, minerals and sunlight and 0therefore reduce crop yield.
   i) Both A and R are true and R is the correct explanation of the assertion.
10. **Assertion (A):** Fertilizers are always beneficial for crop growth.
    Reason (R): They provide essential nutrients that plants need.
    iv) A is false but R is true

II. VERY SHORT QUESTIONS (2M)

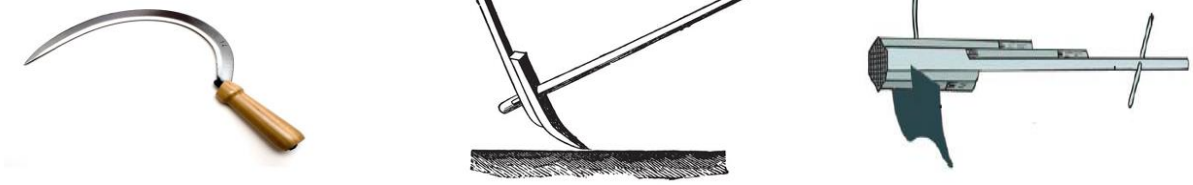
1. What do you mean by the term irrigation?
[Hint: Irrigation is the process of providing water to crops at regular intervals. Irrigation timing and frequency differ from crop to crop, soil to soil, and season to season.]

2. What are weedicides and why is it important to remove the weeds? Name one commonly used weedicide. **[Hint- The chemicals used to control weeds are known as weedicides. Weed removal is necessary because weeds compete with crops for water, nutrients, and other fundamental requirements, causing crop development to be limited and yields to be low. E.g.- 2,4-D.]**

3. In the nursery, some plant saplings are kept in small bags. Why? **[Hint-In some crops (like rice, and tomatoes), the seeds are sown in a small area called the nursery. When they germinate into small seedlings, these are transferred to the main field. This is called transplantation. These small plants are kept in bags to protect them from the outer environment and pamper them with suitable growth conditions.]**

4. Identify the following agricultural implements and their use.

A B C



[Hint- A- sickle- Harvesting B- Plough-Tilling, adding fertilisers to the crop, removing weeds C- Hoe-Removing weeds, used for ploughing.]

5. What is Animal husbandry?

[Hint-Animal husbandry is the field of agriculture that deals with animals that provide meat, fibre, milk, or eggs on a large scale. They are given adequate food, housing, and care.]

6. Why is it necessary to level the field before sowing the seeds?

[Hint: The ploughed field may have big pieces of soil called crumbs. The process of breaking the big lumps of soil with a plank (leveller) is called levelling. The field is levelled for sowing as well as for irrigation purposes.]

III. SHORT ANSWER TYPE QUESTIONS (3M)

1. If you are given a dry piece of land for cultivation, what will you do before sowing the seeds?

[Hint- If the field is dry for the cultivation of crops, the soil preparation is done accordingly before the sowing of crops. Preparation of dry soil includes adequate watering to restore the moisture content and then ploughed to allow growth of microbes and aeration, Finally, the soil is turned and its crumbs are levelled and manures are mixed. The soil is ready for sowing of crops in the field.]

2. Differentiate between Kharif and Rabi crops.

[Hint: Kharif- Crops grown in the rainy season, June to September. E.g.: Paddy, Maize, Groundnut etc.

Rabi- Crops grown in the winter season, October to March. E.g.: Wheat, Gram, Pea etc]

3. How are grains stored and preserved?

[Hint- Farmers store grains in jute bags or metallic bins. Large-scale storage of grains is done in silos and granaries to protect them from pests like rats and insects. Dried neem leaves are also used in storing food grains at home. For storing large quantities in big godowns, specific chemical treatments are required to protect them from pests and microorganisms.]

4. Why is it necessary to sow seeds at an appropriate depth and distance?
[Hint: If the seeds are sown too deep, they will not be able to germinate. And if grown at a shallow depth they will be eaten up by the birds and animals. Keeping an appropriate distance is important to avoid overcrowding so that the seeds get sufficient sunlight, nutrients and water.]

4. Briefly explain the different elements of Animal husbandry.
[Hint- Feeding the animals properly, providing proper shelter to the animals, ensuring proper breeding of animals, ensuring proper protection of animals against fatal and minor diseases.]
5. What is crop rotation? Why is it important**?**
[Hint-Crop rotation is a farming practice where different crops are grown alternately in the same field over different seasons or years. Growing legumes as fodder one season and wheat the next is one example. It is significant because it aids in nitrogen replenishment in the soil and the number of pests that attack each crop is reduced.]

IV. LONG ANSWER TYPE QUESTIONS (5M)

1. What is ploughing or tilling? State its advantages.
   [Hint: The process of loosening and turning the soil is called tilling or ploughing. This is done by using a plough. Ploughs are made of wood or iron.
   The following are the advantages of ploughing or tilling:
- **Ploughing loosens the soil and makes it aerated.**
- **It helps in mixing organic matter with the soil uniformly.**
- **It initiates the growth of natural agents and microorganisms and thus, keeps the soil fertile.**
- **It increases the water-holding capacity of soil.**
- **It helps in easy penetration of roots into the soil.]**

2. Write a short note on the terms:
a) Storage
b) Harvesting
c) Drip Irrigation and sprinkler system
   [Hint: Storage: Storage of produce is an important task. If the crop grains are to be kept for a longer time, they should be safe from moisture, insects, rats and microorganisms. Before storing, the grains are properly dried in the sun to reduce the moisture in them. This prevents the attack by insect pests, bacteria and fungi. Grains are stored by farmers 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.

   Harvesting: After the maturation of the crop, harvesting is an important task. In harvesting, crops are pulled out or cut close to the ground. It usually takes 3 to 4 months for a cereal crop to mature. Harvesting in our country is either done manually by sickle or by a machine called a harvester.

   Sprinkler System: This method is particularly helpful on uneven terrain where there isn't enough water. At regular intervals, the perpendicular pipes with

revolving nozzles on top are connected to the main pipeline. Water flows from the revolving nozzles when it is permitted to flow under pressure via the main pipe with the support of a pump. As though it were sprinkling, it is sprayed on the crop.

Drip System: The waterfalls are exactly near the roots in this arrangement, drop by drop. As a result, it's known as a drip system. It is the most effective method for watering fruit trees, gardens, and trees since no water is wasted. It's a gift in areas where there's a shortage of water.]

V. SOURCE-BASED/ CASE STUDY-BASED QUESTIONS

Krishi Vigyan Kendra (KVK), a constituent extension centre of Tamil Nadu Veterinary and Animal Sciences University, organised a farmer's workshop on organic farming in vegetable cultivation at Kalayarkoil to commemorate the World Soil Day.
(a) What is organic farming?
(b) What is the advantage of organic farming?
(c) What are the health benefits of organic farming?
(d) What values of KVK are shown here?
[Hint:
(a) Organic farming is a form of agriculture that relies on techniques such as crop rotation, green manure, compost and biological pest control.
(b) Advantages of organic farming are:

- **Do not use any harmful chemicals**
- **Crops have better taste and nutrition**
- **Eco-friendly**
- **Cost effective**

(c) Organic farming uses all the natural ways to provide nutrients and to get rid of pests. So, it reduces the harmful effects of pesticides and fertilisers on human beings.
(d) Krishi Vigyan Kendra shows concern about the growing use of pesticides, fertilisers, etc., and their adverse effect on human health. It is spreading awareness amongst farmers about eco-friendly ways of cultivating crops.]

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