



INDIAN SCHOOL AL WADI AL KABIR

Class: VIII	Department: SCIENCE	Date of completion: 18th Oct, 2020
Worksheet No:10 with answers	Topic: CROP PRODUCTION AND MANAGEMENT	Note: A4 FILE FORMAT

I. OBJECTIVE TYPE QUESTIONS-

Tick the correct option for the following-

- 1) Which one of the following is not a kharif crop?
(a) Maize (b) Paddy (c) **Gram** (d) Groundnut
- 2) What should be removed from the produce just before its storage?
(a) Fungicide (b) Grain (c) Pesticide (d) **Moisture**
- 3) Which of the following is not true for fertiliser?
(a) They increase the yield
(b) Their excessive use disturbs the balance of nutrients in soil.
(c) They are generally used in small quantity.
(d) **They are environment friendly.**
- 4) The system of irrigation wherein water is supplied drop by drop near the roots of plants, is called
(a) pulley system (b) **drip system** (c) sprinkler system (d) lever system
- 5) The process of loosening and turning of soil is called-
(a) irrigation and manuring (b) digging and winnowing
(c) **tilling and ploughing** (d) harvesting and storage
- 6) Which of the following tools would a farmer use to remove weeds from the field?
(a) **Hoe** (b) Plough (c) Axe (d) Cultivator
- 7) Given below are statements about the harmful effects of weeds on crop plants-
 1. They interfere in harvesting.
 2. They help crop plants to grow healthily.
 3. They compete with crop plants for water, nutrients, space and light.
 4. They affect the plant growth.

Identify the correct statements.

- (a) **(1), (3) and (4)** (b) Only (3) (c) (3) and (4) (d) (1), (2), (3) and (4)

For the following questions, two statements are given- one labeled Assertion (A) and the other labeled 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 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*

8. Assertion (A): Earthworms are known as friends of farmers.

Reason (R): Earthworms turn and loosen the soil. They also add humus to it.

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

9. 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.

10. Assertion (A): The grains are properly dried in the sun to reduce the moisture in them.

Reason (R): Large scale storage of grains is done in silos and granaries.

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

II. BASIC CONCEPTS LEVEL QUESTIONS:

1. What is a crop? What are the two main types of crops based on seasons?

[Hint- When plants of the same kind are grown and cultivated at one place on a large scale, it is called a crop. Based on seasons, crops can be classified as- (i) Kharif Crops: which are sown in the rainy season. The rainy season in India is generally from June to September. Examples- Paddy, maize. (ii) Rabi Crops: grown in the winter season. Their time period is generally from October to March. Examples- wheat, gram, pea.]

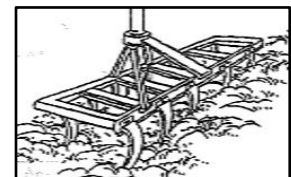
2. What do you mean by the term tilling? Mention its advantages.

[Hint- The process of loosening and turning of the soil is called tilling or ploughing. It provides aeration and drainage to soil, allows roots of plants to penetrate deep into loose soil, mixes fertilisers uniformly with loose soil, loose soil helps in growth of earthworm and microbes]

3. a) Identify the machine. [Hint- Seed drill]

b) Mention its function. [Hint- Sowing seeds with the help of tractors.]

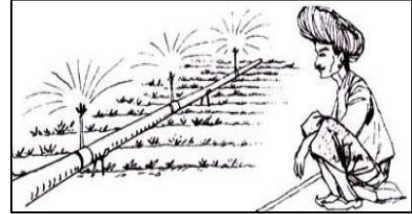
c) Write the advantages of using it. [Hint- (i) Sows the seeds uniformly at proper distances and depths. (ii) Ensures that seeds get covered by the soil after sowing. This prevents damage caused by birds. (iii) Saves time and labour.]



4. What do you mean by crop rotation? How is it helpful?

[Hint: The method of growing crops alternatively on same land is known as crop rotation. Eg-Legumes (pea, beans, grams and pulses) are grown in first season and wheat should be grown next to it. It is helpful because- the land gets utilized in a better way, soil fertility is maintained, farmer has variety of crops for selling.]

5. What are weedicides? Name one commonly used weedicide.
[Hint- The chemicals used to control weeds are known as weedicides. Eg- 2,4-D. T]
6. Define the following terms:
 - a) Harvesting- [Hint- The cutting of crop after it is mature is called harvesting.]
 - b) Winnowing- [Hint- The method of separation of grain and chaff is called winnowing.]
 - c) Field fallow. [Hint: The method in which land is left uncultivated in between two crops to restore fertility naturally is called field fallow.]
7. a) Identify the system of irrigation shown in the adjacent picture. [Sprinkler system]
b) In which region will it be more useful?
[Hint- It will be useful in the region with- sandy soil, uneven land, non-availability of sufficient water.]
8. How is drip irrigation boon in regions with water scarcity?
[Hint- The system provides water to plants drop by drop. Water is not wasted at all. It is a boon in regions where availability of water is poor.]
9. What is the process of levelling and its significance?
[Hint: The ploughed field may have big pieces of soil called crumbs. The process of breaking the big lumps of soil with a plank (leveler) is called as levelling. The field is levelled for sowing as well as for irrigation purpose.]
10. What is a combine machine?
[Hint- A combine is a farm machine which is used for both harvesting and threshing.]



III. INTERMEDIATE LEVEL QUESTIONS:

1. Explain how will you select good healthy seeds for sowing?
[Hint- Take a bowl and fill it upto half with water. Put a handful of gram/wheat seeds in it. Leave the beaker undisturbed for about one hour. Some seeds will float on the water as they are hollow and light. These are unhealthy and damaged seeds. Other seeds which settle down at the bottom are healthy seeds and are good for sowing.]
2. Why is it important to sow seeds at correct distance from each other?
[Hint- An appropriate distance between the seeds is important to avoid overcrowding of plants. This allows plants to get sufficient sunlight, nutrients and water from the soil.]
3. How do earthworms and microbes in the soil help in preparing the soil?
[Hint: They make burrows in soil and bring lower fertile layer above the ground. Earthworms and microbes turn and loosen the soil. They decompose dead plants and animals. Thus, they help in recycling of nutrients and add humus to soil]
4. Why is it essential to irrigate our fields?
[Hint: Irrigation of fields is essential because- (a) seeds do not germinate in the absence of water, (b) plants can absorb minerals and fertilisers along with water, (c) nutrients dissolved in water get transported to each part of the plant, (d) water protects the crop from both frost and hot air currents.]

5. How do weeds affect the growth of crops?

[Hint- 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.]

6. What precaution should be taken while spraying weedicides? Why?

[Hint- Spraying of weedicides may affect the health of farmers. So, they should use these chemicals very carefully. They should cover their nose and mouth with a piece of cloth during spraying of these chemicals.]

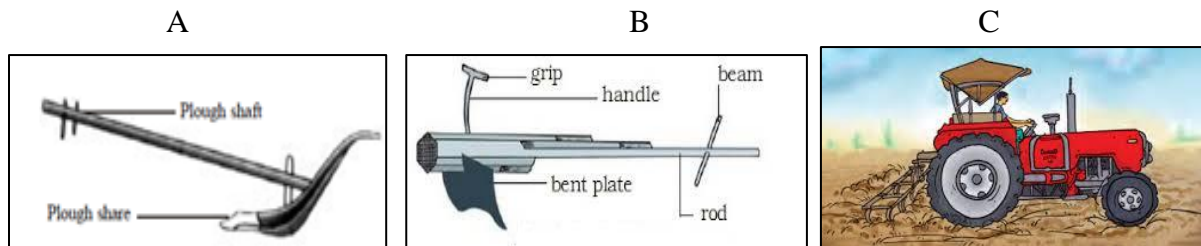
7. Give reason- Farmers must not burn the stubs of crop left in the field after harvesting.

[Hint- The burning of left-over stubs of crop causes air pollution. It may also spread fire and damage the crops lying in the fields.]

8. Why are grains first dried in the sun and then packed to be stored in godowns?

[Hint- Before storing, the grains are properly dried in the sun to reduce the moisture in them. This prevents the attack by insects, pests, bacteria and fungi.]

9. Identify the following agricultural implements and their use.



[Hint- A- Plough, B- Hoe, C- Cultivator. All three implements are used for ploughing.]

10. Why is manure considered to be better than fertilisers?

[Hint- Manure is considered better than fertilisers because it- enhances the water holding capacity of the soil, makes the soil porous due to which exchange of gases becomes easy, increases the number of friendly microbes, improves the texture of the soil.]

11. 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 rat 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.]

12. (a) Name the practice followed for large scale rearing of farm animals.

(b) What facilities are provided to farm animals?

[Hint- (a) The science of rearing, caring, breeding and improvement of domesticated animals is known as animal husbandry. It is the practice of breeding and raising livestock like cows, buffaloes, horses and sheep, etc. This practice requires good care and management of livestock. (b) The animals or livestock in animal husbandry practice should be provided with: appropriate shelter facilities, food and water, good hygienic practices, medical facilities, etc.]

IV. ADVANCED LEVEL QUESTIONS:

1. How does the loosening of soil allow the roots to breathe easily?
[Hint- Loosening of soil allows roots of plants to penetrate into the spaces in between the **soil** particles which have air trapped in them.]
2. In nursery, some plant saplings are kept in small bags. Why?
[Hint- In some crops (like rice, tomatoes), the seeds are sown in a small area called 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.]
3. Why should fertilisers be substituted by organic manure?
[Hint- The excessive use of fertiliser changes the chemical nature (acidic or basic) of soil and makes soil less fertile. Fertilisers are also a source of water pollution.]
4. 'The frequency of irrigation of crops is higher in summer season.' Justify.
[Hint- In summer, the frequency of watering is higher. It is due to the increased rate of evaporation of water from the soil and the leaves.]

V. EXEMPLAR QUESTIONS:

1. Which activity of the farmer can promote growth of earthworms and microbes in the field?
[Hint- Ploughing of the soil during soil preparation creates spaces in the soil thus, leading to aeration and the soil also loosens which promotes the growth and survival of earthworms and microbes and release of nutrients in the soil.]
2. Bhavin wants to practice crop rotation in his field. Suggest a rabi crop and a kharif crop which will replenish his field with nitrogen.
[Hint- Rabi crops are wheat, pea, mustard while kharif crops are maize, paddy or soya bean. These are grown in different seasons and can be grown alternatively. Pea and soya bean are leguminous plants which harbour rhizobium bacteria in their root nodules. Thus, help in fixing nitrogen and replenishing nitrogen in the field. Bhavin can easily practice crop rotation.]
3. 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 cultivation of crops, the soil preparation is done accordingly before sowing of crops. Preparation of dry soil includes adequate watering to restore the moisture content and then tilled and 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.]

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