

Lesson 15

Improvement in Food Resources

Q1 What are the advantages of intercropping and crop rotation?

Ans Advantages of intercropping

- 1 It helps the crops to utilise maximum nutrients from the soil,
- 2 It helps to maintain soil fertility.
- 3 It helps to prevent spread of pests and diseases in all the plants of one crop in the field

Advantages of Crop rotation

- 1 Two or three crops can be grown in a year.
2. It helps to control weeds.
3. It helps in maintaining of soil fertility

Q2. Define the term organic farming .Write its four advantages

Ans organic farming .Production of unpolluted plant products by pursuing of farming system with minimal or no use of chemicals and fertilizers, herbicides and op pesticides etc. is known as organic farming.

Advantages of organic farming

- 1 In organic farming there is minimum or no use of chemicals
- 2 It maintains the soil fertility.
3. Food obtained by this process is nutritious and unpolluted.

Q3. Define green revolution, White Revolution, hybridisation of crops.

Ans Green revolution The huge increase in the production of food grains specially wheat in our country in the last 45 years is termed as green revolution.

White Revolution The increase in the production of milk in our country over the last few decades is called white revolution.

Hybridisation It refers to crossing between genetically dissimilar plants. Types of hybridization

- 1 Intervarietal i.e. crossing between different varieties.
2. Interspecific i.e. crossing between two different species of same genus
3. intergeneric i.e. crossing between different genes.

Q4 Write any three advantages of mixed cropping.

Ans 1. If two crops are grown in a field then there is no risk of failure of crops due to uncertain monsoon. One crop will definitely give good yield.

2 Soil fertility is improved.

3. Due to increased soil fertility yield of the crop is also increased.

Q5. Using biological waste material what are the different kinds of manure that are prepared

What are the advantages?

Ans Following types of manures are prepared

1 **Compost** farm waste materials like livestock, excreta, animal refuse, vegetable waste, domestic waste, sewage waste etc. are decomposed in pits. It is composting.

2. **Vermicompost** It is prepared by using earthworms to hasten the process of decomposition.

3. **Green manure** Prior to sowing of crops seeds plants like sunn hemp and gaur are grown and then mulched by ploughing them into the soil.

They enrich the soil with nitrogen and phosphorus.

Q6. list five facilities that must be provided to cattles to ensure their good health and production of clean milk

Ans facilities must be provided to cattle

1. Regular brushing to remove dirt and loose hair .
2. Well ventilated roofed sheds for shelter that can protect them from rain, heat and cold.
3. The floor of the cattle shed needs to be sloping so as to stay dry and to facilitate cleaning.
4. Balanced diet should be given to cattle.
5. Vaccination of farm animals at proper time against viral and bacterial diseases.

Q7. What kind of advantage a farmer gets when he grows a leguminous crop between two cereal crops?

Ans A leguminous crop fixes atmospheric nitrogen with the help of nitrogen fixing bacteria. It helps in the addition of nitrogen into the soil without adding extra nitrogenous fertilizers to the soil. This practice helps a farmer to save money wasted for fertilizer and increase the yield.

Q 8 A farmer observed Parthenium plant growing along with wheat crop . What is Parthenium? What should he do to protect his crop? Why?

Ans *Parthenium is a weed

The farmer should remove them during the early stages of crop growth using a herbicide or weedicide.

Weeds compete with the crop for space, nutrients, water and light, thus affecting the growth of the crop.

Q9 List out some useful traits in improved crop?

Ans Some useful traits in improved crops are

- 1 Higher yield of crop
2. Improve quality of crop
3. Biotic and abiotic resistance
4. Change in maturity duration
5. Wider adaptability
6. Desirable agronomic characteristics.

Q10. An Italian bee variety *A. mellifera* has been introduced in India for honey production. Write about its merits over other varieties.

Ans Merits of Italian Bee variety *A. mellifera* are:

1. It stings less.
2. It has high honey collection capacity.
3. It stays in the given beehive for longer period and breed very well.

Q11. Define the following

1 Milch animals

2 Draught animals

3 Sustainable agriculture

4 Fodder crops

Ans 1. Milk producing animals are called milch animals e.g. cow, buffalo, camel etc.

2 Animals used for farm labour are called draught animals. e.g. bullocks, horses, mules etc.

3 the practice of farming and production of maximum agricultural yield through management of natural resources without disturbing the environment is known as sustainable agriculture.

4 Crops like berseem oats or Sudan grass which are used as food for the livestock are called fodder crops.

Q12. How do we identify a sick animals?

Ans 1 A sick animal does not feed regularly

2. It does not stand in a normal posture .

3. The milk production is reduced. 4. The body temperature is increased .

5. Their eyes are watery and it feels uneasiness.

Q13. A) What is meant by composite fish culture?

b) What is the basis of selecting the different species of fish?

c) Which method is used to get pure fish seed?

Ans a) In such a system a combination of 5 or 6 fish species is used in a single pond. These species are selected so that they do not compete for food i.e. they should have different food habits. This increases the fish yield from the pond.

Examples Cattle are surface feeders, rohu fish in the middle zone of the ponds and common carps are bottom feeder and grass carp feed on weeds.

b.) The basis of selecting the different species of is the different food habits of species of fishes.

c) 1 To get pure fish seed breed the fishes in ponds using hormonal stimulation.

2 This ensure the supply of pure fish seeds in desired quantities.

Q 14 What is pasturage and how is it important ?

Ans Flower available for the collection of Nectar and Pollen is known as pasturage

1 Quality of honey and the taste of honey depend upon pasturage

2 Pollen Grains serve as protein food for bees

Q15. list the various methods of weed control

Ans. Methods of weed control

a) mechanical method: weeds are removed by pulling out by hand

b) chemical methods: Weeds can be controlled by the use of chemicals like 2, 4 D

c) cultural methods: cultural methods include proper seedbed preparation timely sowing of seeds, intercropping along with suitable rotation.

Q16 What are macronutrients and why are they called macronutrients?

Ans There are 16 nutrients which are essential for plants . Amongst these nutrients 6 are required in large quantity and are therefore called macronutrients .

Macronutrients: nitrogen, Phosphorus ,potassium, calcium, magnesium ,sulphur.

Q17. How are fish obtained?

Ans There are two ways of obtaining fish. They can be obtained by

1 Capture fishing :It is the way of obtaining fish from the natural resources(river Lake Ocean)

2 Culture fishery :it is also known as fish farming where selected fishes are rare and bred .

Q18. How do biotic and abiotic factors affect the crop production?

Ans The biotic factors include living organisms like Microorganism Earthworms who help in better Crop production while pests and microbes that produce bad effect on crop production.

The abiotic factors are the climatic conditions and non living natural resources like soil water and air. They also affect the crop production since available conditions of temperature humidity and mineral nutrition improve crop production.

Q19 Differentiate between mixed cropping and intercropping.

Ans

Mixed cropping.

1 Aim is to minimise risk of Crop failure .

2 Seeds of component crops are mix before sowing

3 Sowing is not in rows
intercropping

1. Aim is to increase productivity per unit area
2. Seeds of component crops are not mixed
- 3 Sowing is done in rows in a precise pattern

Q20. What management practices are common in dairy and poultry farming

Ans The management practices that are common in dairy and poultry farming are
1 food requirements.

2 Proper cleaning and shelter facilities .

3 Protection from unfavourable climatic conditions and diseases. 4. Protection from pests.