Class-IX

Biology

CHAPTER 15: IMPROVEMENT IN FOOD RESOURCES

1. What are fodder crops? Give example.

Ans. Crops that are grown as food for livestock are called as fodder crops.
E.g., Berseem, oats and sudan grass.

2. Define "Photoperiod".

Ans. Photoperiod refers to the duration of sunlight needed for the plants. Photosynthesis, growth of plants and flowering are dependent on sunlight.

3. What are the three basic scientific approaches for increasing yield of crops?

Ans. (i) Crop variety improvement
(ii) Crop production improvement
(iii)Crop protection Management

4. Mention two ways by which crop variety can be improved.

Ans. (i) Hybridisation
(ii)Genetic modification

5. What is hybridisation? Name its types.

Ans. Hybridisation refers to crossing between genetically dissimilar plants.
The three types of hybridisations are:
(i) Intervarietal (between different varieties)
(ii) Interspecific (between two different species of same genus)
(iii)Intergeneric (between different genera)

6. What are genetically modified crops?

Ans. Genetically modified crops are those crops which have been improved by introducing a gene that would provide the desired characteristics.

7. What are the factors for which crop variety improvement is done?

Ans. Some of the factors for which crop variety improvement is done are:
(i) Higher yield
(ii) Improved quality
(iii)Biotic and Abiotic resistance
(iv)Change in Maturity duration
(v) Wider Adaptability
(vi)Desirable agronomic characteristics

8. List some advantages of using manure?

Ans. (i) Manure helps in enriching soil with nutrients and thus increases soil fertility.
(ii) Manure contains organic matter which helps to improve soil texture.
(iii)In using manure, we use biological waste material which is advantageous in protecting our environment from the excessive use of fertilizers.
(iv) Using biological waste material is also a way of recycling farm waste.

9. What is green manure?

Ans. Prior to sowing of desired crop seeds, some plants like sun hemp or guar are grown and then mulched by ploughing them into the soil. These green plants thus turn into green manure which helps in enriching the soil in nitrogen and phosphorous.

10. What is organic farming?

Ans. Organic farming is a farming with-
(i) Minimal or no use of chemicals like fertilisers, herbicides, pesticides etc.
(ii) Maximum input of organic manures such as recycled farm wastes (straw, hay and livestock excreta).
(iii)Use of bio-agents in the preparation of bio-fertilizers, such as blue-green algae.
(iv)Use of neem leaves or turmeric as bio pesticides.
(v) Use of healthy cropping systems like mixed-cropping, inter-cropping and crop rotation. These cropping systems are beneficial in control of insects, pests, etc. besides providing nutrients.

11. What are the advantages of inter-cropping, mixed-cropping and crop rotation?

Ans. The advantages are-
(i) The crops are selected such that their nutrient requirements are different. This ensures maximum utilization of the nutrient supplied.
(ii) It prevents pests and diseases from spreading to all the plants belonging to one crop in a field. This way, both the crops can give better returns.

12. What are weeds? Give some examples.

Ans. Weeds are unwanted plants in the cultivated field.
(i) Xanthium (Gokhroo)
(ii) Parthenium (Gajar ghas)
(iii)Cyperinus rotundus (Motha)

13. How can plants be protected from weeds, insects and pathogens?

Ans. Some commonly used methods for plant protection are-
(i) By the use of pesticides, which includes herbicides, weedicides and fungicides.
(ii) By the use of weed control methods which includes mechanical removal.
(iii)Preventive measures such as proper seed bed preparation, timely sowing crops, intercropping and crop rotation.
(iv)Use of resistant variety of seeds.
(v) By summer ploughing.

14. What are the factors responsible for loss of grains during storage?

Ans. Factors responsible are :-

(i) Biotic factors – such as insects, rodents, fungi, mites and bacteria.

(ii)Abiotic factors – such as inappropriate moisture and temperature.

15. The cross breeding of exotic and local cattle results in animals with better

Ans. qualities. Justify.

Exotic and foreign breeds of cattle are selected for long lactation period where as local breeds show excellent resistance to diseases. The two can be crossed bred to get animals with both the desired qualities.

16. What management practices are common in dairy and poultry farming?

Ans. (i) Maintenance of temperature and hygienic condition in housing.

(ii) Maintenance of hygiene in their feed and providing nutritious diet.

(iii)Appropriate vaccination can prevent the occurrence of infectious diseases and reduce loss of poultry during an outbreak of disease.

17. What is composite fish culture system? Mention its advantages.

Ans. Selecting and breeding a combination of five or six fish species is used in a single pond is called composite fish farming.

(i) They do not compete for food among them as having different types of food habits.as a result, food available in all the parts of the pond is used

(ii) This increases the fish yield from the pond.

18. What is the major problem in fish farming? What has been done to overcome it?

Ans. A major problem in fish farming is the lack of availability of good quality seeds. To overcome this problem, ways have been worked out to breed these fishes in ponds using hormonal stimulation.

19. What are the factors that determine the quality and taste of honey?

Ans. (i) The pasturage – The flowers available to bees for nectar and pollen collection.

(ii)The kind of flowers available will determine the taste of the honey.