

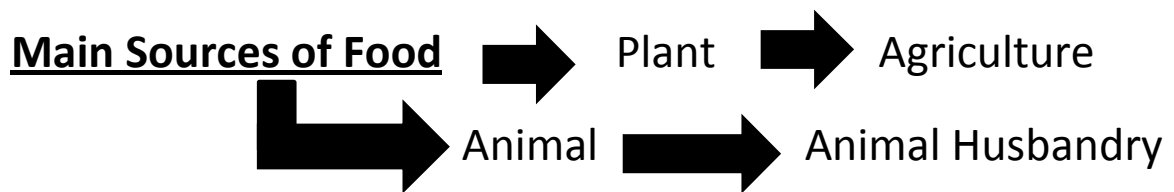
CLASS – IX

BIOLOGY NOTES

CH - 15

IMPROVEMENT IN FOOD RESOURCES

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1. What is Green revolution?

Increase in wheat and food grains in production.

2. What is White revolution?

White revolution has led to better and more efficient use as well as both availability of milk.

3. Crops rich in carbohydrates –

-  RICE
-  WHEAT
-  MAIZE
-  MILLETS

4. Crops rich in Proteins –

-  GRAM
-  LENTIL
-  PEA
-  BLACK GRAM

5. Crops rich in Fat –

-  SOYABEAN
-  GROUNDNUT
-  MUSTARD
-  LINSEED

6. Which crops are rich in minerals and vitamins?

 FRUIT

 VEGETABLE

 SPICES

Are rich in minerals and vitamins

7. What is Photoperiod?

Duration of sunlight when plants are exposed to.

8. What are Khariff Season and Rabi Season with examples?

Khariff Season – Rainy Season – June to October

Example: Paddy, Pigeon, Green Gram, Black Gram, Cotton.

Rabi Season – Winter Season – November to April

Example: Gram, Pea, Wheat, Mustard

9. What are the major activities for improving crop yield?

 Crop variety improvement

 Crop production improvement

 Crop rotation management

10. What is hybridization?

One way of incorporating desirable characters into crop varieties is by Hybridisation. Hybridisation refers to crossing between genetically dissimilar plants.

11. What is Manure?

It is a substance which contains large quantities of organic matter and also supplies small quantities of nutrients to the soil. It is prepared by the decomposition of animal and plant excreta.

12. What are the uses of manure?

The bulk of organic matter in manure helps in improving the soil structure. This involves increases the water holding capacity in sandy soil. In clayey soils, the large quantities of organic matter help in drainage and in avoiding water logging.

13. What are compost and Vermi Compost?

<u>COMPOST</u>	<u>VERMI-COMPOST</u>
The process in which farm waste material like livestock excreta (cow dung etc) Vegetable waste, animal refuse, domestic waste, Sewage waste, Straw, Eradicated weeds etc. is decomposed in the pits is known as compost.	The Compost rich in organic matter and nutrients. Compost is also prepared by using earthworms to hasten the process of decomposition of plant and animal refuse. This is called Vermi compost.

14. What is green manure?

Prior to the sowing of the 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 phosphorus.

15. What are fertilizers?

Fertilizers are commercially produced plant nutrients. Fertilizers supply nitrogen, phosphorus and potassium. They are used to ensure good vegetative growth (leaves, branches and flowers), giving rise to healthy plants. Fertilizers are a factor in the higher yields of high-cost farming.

16. What are advantages and disadvantages of fertilizers?

<u>Advantages</u>	<u>disadvantages</u>
They are used to ensure good vegetative growth (leaves, branches and flowers), giving rise to healthy plants. Fertilizers are a factor in the higher yields of high coast farming.	Sometime fertilizers get washed away due to excessive irrigation and are not fully absorbed by the plants. This excess fertilizer then leads to water pollution.

17. What precautions should be taken while using the fertilizers?

Fertilizers should be applied carefully in terms of proper dose, time and observing pre- and post-application precautions for their complete utilization.

18. What is Mixed cropping?

Mixed cropping is growing two or more crops simultaneously on the same piece of land.

Eg -: Wheat + gram or Wheat + Mustard or Groundnut + Sunflower

19. What is the importance of Mixed Cropping?

This reduces risk and gives some insurance against failure of one of the given crops.

20. What is inter-cropping?

Inter-cropping is growing two or more crops simultaneously on the same fields in a definite pattern.

Eg:- Soyabean + Maize, or finger millet (bajra) + Cowpea (Fobia)

21. What is crop rotation?

The growing of different crops on a piece of land in a pre-planned succession is known as crop rotation.

22. What are weeds?

Weeds are unwanted plants in the cultivated field. Eg:- Xanthium, Parthenium, Rotandus.

23. How do weed affect the crops?

They compete for food space, and light weeds take up nutrients and reduce the growth of the crop. Therefore, Removal of weeds from cultivated fields during the early stages of crop growth is essential for a good harvest.

24. How do insects pest attack?

Generally insect pests attack the plants in 3ways

- They cut the root, the stem and leaf.
- They suck the cell sap from various parts of the plants.
- They bore into stems and fruits.

Thus they affect the health of the crop and reduce yields.

25. What are the methods to control weeds?

Weed control methods also include mechanical removal. Preventive measures are:-

- Proper preventive bed preparation.
- Timely sowing of crops.
- Inter-Cropping
- Crop-rotation.

26. Why should preventive and biological control methods be preferred for protecting crops?

- Degradation in quality.
- Loss in weight.
- Poor germinability.
- Discolouration of produce, all leading to poor marketability.
- These factors can be controlled by proper treatment and by systematic of warehouses.

27. Explain – Organic farming.

Organic farming is a farming system with minimal or no use of chemicals as fertilizers, herbicides, pesticides etc. and with a maximum input of organic manures re-cycled from waste (Straw and livestock excreta) use of bio-agents such as culture of blue-green algae in preparation of bio-fertilizers, Neem leaves or turmeric specifically in grain storage as bio-pesticides with healthy cropping system (Mixed-cropping, Inter-cropping, and Crop-rotation) these cropping systems are beneficial in insect, pest and at control besides providing nutrients.

28. How do biotic & abiotic factors affect crop production?

Biotic and abiotic resistance crops production can go down due to biotic diseases, insects and hemotodes and abiotic (drought, salinity, water logging, heat, cold and frost) stresses under different situations. Varieties resistant to the stresses can improve crop production.

29. What are the desirable agronomic characteristics for crop improvements?

Desirable agronomic characteristics tallness and refuse branching are desirable characters for fodder crops. Awareness is desired in cereals, so that fewer nutrients are consumed desired agronomic characters help give higher productivity.

30. What factors may be responsible for losses of grains during storage?

Storage loses in agriculture produce can be very high factors responsible for such losses are:

 Biotic –

 Insects


 Rodents

 Fungi

 Mites

 Bacteria

 Abiotic –

 In appropriate mixture and temperature in the place of storage.