

CHAPTER – 16: Strategies for Enhancement in Food Production

- 1. What is the main goal of agricultural biotechnology?**
 - a) To enhance soil fertility**
 - b) To increase crop yields**
 - c) To reduce pest populations**
 - d) To improve irrigation techniques**
- 2. Which of the following is a method of organic farming?**
 - a) Use of synthetic fertilizers**
 - b) Genetic modification of crops**
 - c) Composting and natural pest control**
 - d) Use of chemical pesticides**
- 3. Which technology is used to improve the nutritional quality of crops?**
 - a) Conventional breeding**
 - b) Genetic engineering**
 - c) Organic farming**
 - d) Soil conservation**
- 4. What is the main benefit of using genetically modified (GM) crops?**
 - b) Reduced crop diversity Increased resistance to pests and diseases**
 - c) Decreased nutritional content**
 - d) Higher soil erosion**
- 5. Which farming practice helps in conserving soil moisture?**
 - a) Monoculture**
 - b) Crop rotation**
 - c) Tillage**
 - d) Irrigation**
- 6. What is the purpose of crop rotation?**
 - a) To increase soil erosion**
 - b) To maintain soil fertility and reduce pests**
 - c) To increase the use of chemical fertilizers**
 - d) To maximize the use of irrigation**
- 7. Which method is used to enhance the production of high-yielding varieties of**

crops?

- a) Cross-breeding**
- b) Organic farming**
- c) Hydroponics**
- d) Genetic modification**

8. What is the primary function of biofortification?

- a) To improve soil structure**
- b) To enhance the nutritional content of crops**
- c) To reduce water usage in agriculture**
- d) To increase the shelf life of produce**

9. Which practice is considered sustainable in agriculture?

- a) Overuse of chemical pesticides**
- b) Use of genetically modified organisms (GMOs)**
- c) Integrated pest management**
- d) Monoculture**

10. Which of the following is a benefit of precision agriculture?

- a) Increased use of water and fertilizers**
- b) Reduced crop yields**
- c) Optimized use of resources**
- d) Increased soil erosion**

11. What is the main objective of the Green Revolution?

- a) To increase agricultural production through technology**
- b) To promote organic farming methods**
- c) To reduce the use of chemical fertilizers**
- d) To conserve natural habitats**

12. Which type of irrigation system is known for being water-efficient?

- a) Flood irrigation**
- b) Drip irrigation**
- c) Surface irrigation**
- d) Sprinkler irrigation**

13. What is the primary role of soil conservation techniques?

- a) To increase soil salinity
 - b) To prevent soil erosion and degradation
 - c) To reduce soil fertility
 - d) To enhance soil compaction
14. Which of the following is a key feature of hydroponic farming?
- a) Use of soil for growing plants
 - b) Growing plants in a nutrient-rich water solution
 - c) Use of synthetic fertilizers
 - d) Traditional farming practices
15. What is the main purpose of integrated pest management (IPM)?
- a) To eliminate all pests using chemicals
 - b) To manage pest populations using a combination of methods
 - c) To increase the use of pesticides
 - d) To reduce crop yields
16. Which technique is used to improve the resistance of crops to diseases?
- a) Conventional breeding
 - b) Genetic modification
 - c) Soil enrichment
 - d) Crop rotation
17. What is the main advantage of using cover crops?
- a) They increase soil erosion
 - b) They improve soil health and prevent erosion
 - c) They reduce crop yields
 - d) They require more water
18. Which of the following is an example of a high-yielding variety of crop?
- a) Traditional maize
 - b) Organic wheat
 - c) Hybrid rice
 - d) Heritage vegetables
19. What is the purpose of artificial selection in agriculture?
- a) To enhance natural plant traits

- b) To select plants with desirable traits for breeding
 - c) To increase genetic diversity
 - d) To reduce crop yields
20. Which of the following practices helps in reducing the environmental impact of farming?
- a) Use of chemical pesticides
 - b) Implementation of sustainable farming practices
 - c) Monoculture farming
 - d) Overuse of water resources
21. What is the role of plant tissue culture in crop improvement?
- a) To enhance soil fertility
 - b) To propagate plants under controlled conditions
 - c) To improve irrigation techniques
 - d) To manage pest populations
22. Which of the following is a benefit of using cover crops in agriculture?
- a) Increased soil erosion
 - b) Enhanced soil fertility and structure
 - c) Reduced water retention
 - d) Decreased crop yields
23. What is the main purpose of using organic fertilizers?
- a) To increase the use of synthetic chemicals
 - b) To improve soil health and fertility naturally
 - c) To reduce the availability of nutrients
 - d) To increase the environmental impact of farming
24. Which technology is used for monitoring crop health and growth remotely?
- a) Soil sensors
 - b) Drones and satellite imagery
 - c) Manual observation
 - d) Weather forecasts
25. What is the primary objective of sustainable agriculture?
- a) To maximize short-term crop yields
 - b) To balance productivity with

environmental and social concerns

- c) To focus solely on chemical input**
- d) To increase monoculture practices**

26. Which of the following is a common method for enhancing soil fertility?

- a) Overgrazing**
- b) Use of green manure and compost**
- c) Continuous tillage**
- d) Monoculture**

27. What is the benefit of using GM crops with pest-resistant traits?

- a) Increased use of chemical pesticides**
- b) Reduced need for chemical pest control**
- c) Decreased crop yields**
- d) Increased soil erosion**

28. Which practice is essential for maintaining the health of aquatic ecosystems in aquaculture?

- a) Overfeeding fish**
- b) Using sustainable feed sources**
- c) Neglecting water quality**
- d) Excessive use of antibiotics**

29. What is the primary benefit of drip irrigation systems?

- a) Increased water wastage**
- b) Efficient water use directly to plant roots**
- c) Higher energy consumption**
- d) Increased soil erosion**

30. Which of the following is an example of a biopesticide?

- a) Chemical fungicides**
- b) Genetically modified crops**
- c) Natural predators and microorganisms**
- d) Synthetic insecticides**

31. What is the role of plant breeding in crop improvement?

- a) To increase soil degradation**

- b) To develop crops with desirable traits
 - c) To reduce genetic diversity
 - d) To decrease nutritional content
32. Which technique is used to enhance the quality of fruits and vegetables during post-harvest?
- e) Use of green manure and compost
 - f) Continuous tillage
 - g) Monoculture
33. What is the benefit of using GM crops with pest-resistant traits?
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- c) To reduce genetic diversity
 - d) To decrease nutritional content
38. Which technique is used to enhance the quality of fruits and vegetables during post-harvest?
- a) Genetic modification
 - b) Controlled atmosphere storage
 - c) Increased pesticide use
 - d) Traditional storage methods
33. What is the purpose of using organic pesticides?
- a) To increase chemical residues
 - b) To control pests with natural substances
 - c) To enhance soil fertility
 - d) To maximize water usage
34. Which method of farming emphasizes the use of natural processes and inputs?
- a) Industrial agriculture
 - b) Organic farming
 - c) Conventional farming
 - d) Monoculture
35. What is the primary goal of precision agriculture?
- a) To maximize use of water and fertilizers
 - b) To optimize inputs and improve crop management
 - c) To reduce the use of technology
 - d) To increase environmental impact
36. Which of the following is an example of a sustainable farming practice?
- a) Over-reliance on synthetic fertilizers
 - b) Implementation of agroforestry systems
 - c) High tillage
 - d) Use of monoculture
37. What is the main benefit of integrating livestock and crop production systems?
- a) Increased land degradation
 - b) Improved nutrient cycling and resource use
 - c) Higher dependence on synthetic inputs

- d) **Reduced soil fertility**
38. Which of the following is a common method for managing soil salinity?
- a) **Use of chemical fertilizers**
 - b) **Implementation of proper drainage systems**
 - c) **Overirrigation**
 - d) **Increased tillage**
39. What is the purpose of using hybrid seeds in agriculture?
- a) **To increase genetic uniformity**
 - b) **To enhance yield and resistance traits**
 - c) **To reduce crop diversity**
 - d) **To increase soil erosion**
40. Which technology helps in identifying nutrient deficiencies in crops?
- a) **Soil sensors**
 - b) **Satellite imagery**
 - c) **Manual observation**
 - d) **Weather forecasts**
41. What is the primary benefit of using conservation tillage?
- a) **Increased soil erosion**
 - b) **Improved soil structure and reduced erosion**
 - c) **Reduced water infiltration**
 - d) **Decreased crop yields**
42. Which practice is used to improve the quality of animal feed?
- a) **Use of genetically modified feed**
 - b) **Organic feed supplementation**
 - c) **Increased use of antibiotics**
 - d) **Overfeeding**
43. What is the main advantage of using precision irrigation systems?
- a) **Increased water waste**
 - b) **Efficient use of water resources**
 - c) **Reduced crop yields**
 - d) **Higher energy consumption**
44. Which method is used to control weeds in a sustainable manner?

- a) **Herbicide use**
 - b) **Mechanical weeding and mulching**
 - c) **Increasing soil salinity**
 - d) **Overuse of chemical fertilizers**
- 45. What is the primary goal of aquaponics?**
- a) **To grow crops in soil**
 - b) **To integrate fish farming with plantcultivation**
 - c) **To increase pesticide use**
 - d) **To decrease water use**
- 46. Which practice helps in reducing the environmental footprint of farming?**
- a) **Excessive use of chemical inputs**
 - b) **Adoption of sustainable farmingpractices**
 - c) **Monoculture**
 - d) **Over-reliance on synthetic fertilizers**
- 47. What is the role of genetically modifiedorganisms (GMOs) in agriculture?**
- a) **To reduce crop diversity**
 - b) **To increase crop yields and resistance**
 - c) **To enhance soil fertility**
 - d) **To decrease plant growth**
- 48. Which method is used to enhance the growth of crops in areas with poor soil?**
- a) **Use of synthetic fertilizers only**
 - b) **Application of organic compost andbiofertilizers**
 - c) **Overgrazing**
 - d) **Increased tillage**
- 49. What is the main objective of sustainablefisheries management?**
- a) **To maximize short-term catches**
 - b) **To ensure long-term sustainability andhealth of fish stocks**
 - c) **To increase pollution levels**
 - d) **To reduce fishing efforts**
- 50. Which of the following practices is mosteffective for reducing soil erosion?**
- a) **Increased tillage**

b) Use of cover crops and conservation tillage

c) Monoculture

d) Overuse of water resources

Answer key

1	2	3	4	5
B	C	B	B	B
6	7	8	9	10
B	D	B	C	C
11	12	13	14	15
A	B	B	B	B
16	17	18	19	20
B	B	C	B	B
21	22	23	24	25
B	B	B	B	B
26	27	28	29	30
B	B	B	B	C
31	32	33	34	35
B	B	B	B	B
36	37	38	39	40
B	B	B	B	A
41	42	43	44	45
B	C	B	B	B
46	47	48	49	50
A	B	B	B	A