

Crop Science Reviewer

By Agriculture Review

1. In a rice-based cropping system, which of the following is the primary advantage of relay cropping?

- A. Reduces soil acidity
- B. Ensures continuous ground cover and efficient land use
- C. Increases fertilizer requirement
- D. Eliminates weed pressure completely

2. In maize production, the recommended planting distance for hybrid varieties under favorable conditions is approximately:

- A. 75 cm x 20 cm
- B. 45 cm x 10 cm
- C. 100 cm x 50 cm
- D. 25 cm x 10 cm

3. Which of the following field crops uses C4 photosynthetic pathway, contributing to its high productivity in tropical climates?

- A. Rice
- B. Wheat
- C. Maize
- D. Barley

4. The process of removing tassels in maize to facilitate hybrid seed production is known as:

- A. Staking
- B. Pruning
- C. Detasseling
- D. Thinning

5. In rice cultivation, “puddling” of soil primarily helps in:

- A. Enhancing soil aeration
- B. Reducing water percolation losses
- C. Increasing microbial activity
- D. Promoting root elongation

6. Which root crop is classified under the family Euphorbiaceae and contains cyanogenic glycosides?

- A. Sweet potato
- B. Yam
- C. Cassava
- D. Taro

7. In tomato cultivation, which nutrient deficiency is most closely associated with blossom-end rot?

- A. Magnesium
- B. Potassium
- C. Calcium
- D. Boron

8. Which of the following is the correct chromosome number of cultivated wheat (*Triticum aestivum* L.)?

- A. $2n = 14$
- B. $2n = 28$
- C. $2n = 42$
- D. $2n = 56$

9. Which type of dormancy in seeds is primarily caused by hard and impermeable seed coats, as seen in legumes?

- A. Physiological dormancy
- B. Morphological dormancy
- C. Physical dormancy
- D. Combinational dormancy

10. The most widely used chemical for breaking seed dormancy in lettuce is:

- A. Gibberellic acid (GA3)
- B. Indole-3-acetic acid (IAA)
- C. Cytokinins
- D. Absciscic acid (ABA)

11. Which among the following is the most critical stage of water requirement in rice?

- A. Tillering
- B. Panicle initiation
- C. Flowering
- D. Grain filling

12. The practice of planting two or more crops in a definite row arrangement at the same time is referred to as:

- A. Sequential cropping
- B. Relay cropping
- C. Intercropping
- D. Multiple cropping

13. In hybrid rice seed production, which of the following is used as a pollen source to fertilize male sterile lines?

- A. Maintainer line (B-line)
- B. Restorer line (R-line)
- C. Cytoplasmic male sterile line (A-line)
- D. Doubled haploid line

14. Which of the following methods is most effective for controlling Striga (witchweed) in sorghum fields?

- A. Use of high nitrogen fertilizers only
- B. Hand weeding before flowering
- C. Growing resistant crop varieties
- D. Application of post-emergence herbicides alone

15. In the context of crop physiology, the compensation point in plants refers to the level of:

- A. Light intensity where photosynthesis equals respiration
- B. Water potential where transpiration stops
- C. Soil pH where nutrient availability is maximum
- D. Fertilizer dose where yield gain is zero

16. Which among the following crops is most sensitive to photoperiod and commonly exhibits short-day response?

- A. Potato
- B. Wheat
- C. Rice
- D. Barley

17. Which of the following crops is commonly propagated using true seed rather than vegetative parts?

- A. Potato
- B. Cassava
- C. Onion
- D. Sweet potato

18. In sugarcane production, the process of removing the top portion of the cane stalk before harvest is called:

- A. Propping
- B. De-topping
- C. Staking
- D. Ratooning

19. Which of the following is NOT a characteristic of an ideal seed variety?

- A. High yield potential
- B. Uniform maturity
- C. Susceptibility to major pests
- D. Wide adaptability

20. Which dormancy-breaking treatment is most suitable for seeds with hard seed coats such as Acacia?

- A. Stratification
- B. Scarification
- C. Cold storage
- D. Application of ethylene

21. In the System of Rice Intensification (SRI), seedlings are transplanted at what approximate age?

- A. 8–12 days
- B. 20–25 days
- C. 30–35 days
- D. 40–45 days

22. In groundnut, peg penetration into the soil is essential for pod formation. Pegs originate from which part of the plant?

- A. Hypocotyl
- B. Gynophore
- C. Stolon
- D. Epicotyl

23. Hybrid vigor (heterosis) in crops is maximized when parents are:

- A. Closely related
- B. Genetically diverse
- C. From the same inbred line
- D. Vegetatively propagated

24. Which among the following crops is a cross-pollinated crop mainly pollinated by wind (anemophily)?

- A. Maize
- B. Tomato
- C. Eggplant
- D. Papaya

25. Which nutrient is considered most critical for early root development in cereal crops?

- A. Nitrogen
- B. Phosphorus
- C. Potassium
- D. Sulfur

26. In sweet potato cultivation, which planting material is commonly used for propagation?

- A. Root tubers
- B. Stem cuttings (vines)
- C. True seeds
- D. Bulbils

27. Which of the following crops is most tolerant to saline soils?

- A. Rice
- B. Barley
- C. Maize
- D. Soybean

28. In sorghum, the accumulation of cyanogenic glycoside “dhurrin” is most toxic to livestock during:

- A. Seedling stage
- B. Flowering stage
- C. Grain filling stage
- D. Harvest stage

29. In onion seed production, the recommended isolation distance under open-pollinated conditions is approximately:

- A. 50 m
- B. 100 m
- C. 500 m
- D. 1000 m

30. Which of the following herbicides is classified as a pre-emergence, selective herbicide commonly used in rice?

- A. Glyphosate
- B. Butachlor
- C. Paraquat
- D. 2,4-D

31. Which of the following is a distinguishing feature of the reproductive stage R3 in soybean?

- A. Appearance of first flower
- B. Pod 5 mm long at one of the four uppermost nodes
- C. Beginning seed development
- D. Pod turning yellow

32. In rice, which nutrient deficiency is typically indicated by bronzing of leaves in younger stages?

- A. Zinc
- B. Phosphorus
- C. Potassium
- D. Nitrogen

33. Which of the following is a characteristic of C4 crop physiology compared to C3 crops?

- A. Higher photorespiration rate
- B. Kranz anatomy in leaves
- C. Lower water use efficiency
- D. Fixation of CO₂ by Rubisco only

34. What is the critical moisture content of maize grain for safe long-term storage?

- A. 20–22%
- B. 18–20%
- C. 12–14%
- D. 8–9%

35. In cassava production, cyanogenic glycosides are concentrated most in which plant part?

- A. Storage roots
- B. Leaves
- C. Stem cuttings
- D. Flowers

36. Which physiological disorder in tomato is primarily linked to calcium deficiency?

- A. Blossom-end rot
- B. Sunscald
- C. Fruit cracking
- D. Catface

37. Which of the following is the recommended isolation distance for certified hybrid maize seed production?

- A. 100 meters
- B. 200 meters
- C. 400 meters
- D. 800 meters

38. In sugarcane, ratooning refers to:

- A. Planting cane setts in furrows
- B. Sprouting of secondary shoots after harvesting the main crop
- C. Removing excess tillers
- D. Applying nitrogen fertilizers in splits

39. What is the principal mode of pollination in oil palm (*Elaeis guineensis*)?

- A. Wind
- B. Self-pollination
- C. Insect-mediated
- D. Water

40. In banana, the removal of male flowers after bunch formation is practiced mainly to:

- A. Reduce disease incidence
- B. Promote larger fruit development
- C. Prevent fruit cracking
- D. Increase bunch stalk length

41. The presence of purple leaf margins in maize is a typical symptom of which nutrient deficiency?

- A. Nitrogen
- B. Phosphorus
- C. Potassium
- D. Magnesium

42. In the context of rice cultivation, what does "straighthead disorder" primarily result from?

- A. Excessive nitrogen fertilization
- B. Continuous flooding and arsenic toxicity
- C. Cold injury during booting
- D. Zinc deficiency in seedling stage

43. Which among the following crops is classified as a "short-day" plant?

- A. Wheat
- B. Potato
- C. Soybean
- D. Barley

44. In sorghum, "midge" damage is most critical during which stage of crop development?

- A. Seedling stage
- B. Booting stage
- C. Flowering stage
- D. Grain-filling stage

45. Which of the following is the critical stage for irrigation in wheat?

- A. Tillering
- B. Crown root initiation
- C. Booting
- D. Grain filling

46. In the context of crop physiology, Harvest Index (HI) is expressed as:

- A. $(\text{Economic yield} / \text{Biological yield}) \times 100$
- B. $(\text{Biological yield} / \text{Economic yield}) \times 100$
- C. $(\text{Grain weight} / \text{Test weight}) \times 100$
- D. $(\text{Seed yield} / \text{Seed rate}) \times 100$

47. In chickpea, which of the following constraints is commonly associated with excessive irrigation?

- A. Flower drop
- B. Root rot disease
- C. Poor seed set
- D. Lodging

48. In onion production, which photoperiod group is generally suitable for tropical regions like the Philippines?

- A. Short-day types
- B. Long-day types
- C. Intermediate types
- D. Neutral types

49. Which of the following post-harvest operations in rice is crucial for reducing fissure formation in grains?

- A. Sun drying
- B. Parboiling
- C. Dehusking
- D. Milling

50. In groundnut, “aflatoxin contamination” is mainly associated with infection by:

- A.** *Aspergillus flavus*
- B.** *Fusarium oxysporum*
- C.** *Rhizoctonia solani*
- D.** *Sclerotium rolfsii*

CULTURE REVIEW

Answer Key

Q1: B	Q11: C	Q21: A	Q31: B	Q41: B
Q2: A	Q12: C	Q22: B	Q32: A	Q42: B
Q3: C	Q13: B	Q23: B	Q33: B	Q43: C
Q4: C	Q14: C	Q24: A	Q34: C	Q44: C
Q5: B	Q15: A	Q25: B	Q35: B	Q45: B
Q6: C	Q16: C	Q26: B	Q36: A	Q46: A
Q7: C	Q17: C	Q27: B	Q37: C	Q47: B
Q8: C	Q18: B	Q28: A	Q38: B	Q48: A
Q9: C	Q19: C	Q29: C	Q39: C	Q49: B
Q10: A	Q20: B	Q30: B	Q40: B	Q50: A

AGRICULTURE REVIEW