

Crop Protection Reviewer

By Agriculture Review

1. Which of the following pesticides is correctly classified as an acaricide (targeting mites and ticks)?

- A. Carbaryl
- B. Mancozeb
- C. Propargite
- D. Glyphosate

2. Chlorpyrifos, an organophosphate insecticide, primarily acts by which mode of action?

- A. Inhibition of sodium channels in nerve membranes
- B. Inhibition of acetylcholinesterase (AChE)
- C. Blocking GABA-gated chloride channels
- D. Disruption of mitochondrial ATP production

3. On a pesticide label the signal word indicating the highest degree of acute toxicity is:

- A. DANGER
- B. CAUTION
- C. WARNING
- D. NOTICE

4. Which of the following is the recommended practice for safe disposal of an empty rigid pesticide container in many national guidelines?

- A. Burn the container in an open field
- B. Puncture and leave it unwashed for landfill
- C. Fill the container with soil and bury immediately
- D. Triple-rinse, puncture, and dispose according to label/authority rules

5. Which weed trait most directly allows perennial weeds (e.g., *Cyperus rotundus*, *Convolvulus arvensis*) to survive repeated tillage and regrow?

- A. Underground storage organs (rhizomes, tubers, bulbs)
- B. Fine seed production only
- C. Short seed dormancy
- D. Shallow root systems

6. The mnemonic "sedges have edges" refers to which anatomical feature used to distinguish sedges from grasses?

- A. Sedges have hollow nodes
- B. Sedges have broad flat leaves like broadleaf weeds
- C. Sedges produce spikelets similar to grasses
- D. Sedges often have a triangular (three-angled) stem cross-section

7. Which characteristic most contributes to a persistent weed seed bank in agricultural soils?

- A. Seeds that all germinate immediately after dispersal
- B. Seed dormancy and hard seed coat allowing delayed germination
- C. Very large seed size that is easily removed by tillage
- D. Seeds that lose viability within a few weeks

8. Adult butterflies (order *Lepidoptera*) possess which type of mouthpart adapted for feeding on nectar?

- A. Siphoning mouthparts (proboscis)
- B. Chewing mouthparts
- C. Piercing–sucking stylet
- D. Sponging labellum

9. Which statement correctly describes holometabolous insect development?

- A. Insect develops through egg → nymph → adult with gradual changes
- B. Development without distinct pupal stage
- C. Complete metamorphosis: egg → larva → pupa → adult
- D. Growth only by molting without metamorphosis

10. The brown planthopper (*Nilaparvata lugens*), a serious rice pest, is best described as which of the following?

- A. A chewing insect that bores into stems
- B. A fungal pathogen of rice
- C. A generalist predator of rice pests
- D. A sap-sucking insect (piercing–sucking) and vector of viral-like diseases

11. The corn borer (*Ostrinia furnacalis*) causes major yield loss in maize primarily by:

- A. Feeding on maize pollen
- B. Boring into stems and ear shanks, reducing translocation
- C. Sucking sap from leaves
- D. Cutting seedlings at the soil surface

12. Which insect pest is a notorious vector of banana bunchy top virus?

- A. Banana weevil borer
- B. Banana aphid
- C. Banana leaf beetle
- D. Thrips palmi

13. The rhinoceros beetle (*Oryctes rhinoceros*) damages coconut mainly by:

- A. Feeding on roots and nuts
- B. Boring into unopened fronds and feeding on soft tissues in the crown
- C. Scraping leaf undersides causing chlorosis
- D. Sucking sap from inflorescence

14. The mango fruit fly (*Bactrocera dorsalis*) primarily damages fruit by:

- A. Ovipositing inside fruits where larvae feed on pulp
- B. Feeding externally on fruit skin
- C. Causing stem tunneling
- D. Spreading bacterial leaf spot

15. Which stored-product pest is most likely to infest milled rice in warehouses?

- A. Rice weevil (*Sitophilus oryzae*)
- B. Brown planthopper
- C. Cutworm
- D. Earwig

16. Ladybird beetles (Coccinellidae) are primarily considered:

- A. Pollinators of fruit crops
- B. Predators of aphids and other soft-bodied pests
- C. Sap-sucking insects
- D. Seed feeders

17. Which of the following describes a cultural control method in pest management?

- A. Using insect growth regulators
- B. Introducing parasitoid wasps
- C. Rotating crops to break pest life cycles
- D. Applying pheromone traps

18. In Integrated Pest Management (IPM), the economic threshold level (ETL) refers to:

- A. The pest density causing unavoidable yield loss
- B. The pest density at which control action should be taken to prevent reaching the economic injury level
- C. The minimum pest population found in any field
- D. The level of pest that benefits natural enemies

19. Which insecticide formulation is most suitable for application to water surfaces in paddy fields?

- A. Dust (D)
- B. Emulsifiable concentrate (EC)
- C. Granule (G)
- D. Wettable powder (WP)

20. Which chemical group of insecticides targets insect sodium channels and includes compounds such as cypermethrin and deltamethrin?

- A. Pyrethroids
- B. Neonicotinoids
- C. Organophosphates
- D. Carbamates

21. Which pesticide formulation contains the active ingredient dissolved in oil and forms an emulsion when mixed with water?

- A. Emulsifiable concentrate (EC)
- B. Wettable powder (WP)
- C. Dust (D)
- D. Suspension concentrate (SC)

22. The persistence of a pesticide in the environment is primarily influenced by:

- A. Its vapor pressure and solubility
- B. Its taste and odor
- C. The manufacturer's brand
- D. Application time alone

23. Which of the following insect pests exhibits diapause as a survival strategy during unfavorable conditions?

- A. Rice stem borer
- B. Cutworm
- C. Brown planthopper
- D. Leaf miner

24. Which weed management method uses allelopathic cover crops to suppress weed germination?

- A. Biological control
- B. Cultural control
- C. Mechanical control
- D. Chemical control

25. Atrazine is a selective herbicide widely used in maize fields to control which type of weeds?

- A. Broadleaf weeds and some grasses
- B. Only sedges
- C. Only dicot trees
- D. Algal growth in irrigation canals

26. Which of the following is a systemic insecticide that acts on nicotinic acetylcholine receptors of insects?

- A. Imidacloprid
- B. Malathion
- C. Cypermethrin
- D. Bacillus thuringiensis

27. Which of the following insects has piercing–sucking mouthparts used for extracting plant sap?

- A. Grasshopper
- B. Rice bug
- C. Termite
- D. Beetle larva

28. The major advantage of biological control in crop protection is that it:

- A. Provides immediate pest eradication
- B. Is environment-friendly and self-sustaining once established
- C. Requires no monitoring of pest populations
- D. Involves repeated use of broad-spectrum insecticides

29. Which of the following weeds is a common sedge found in Philippine rice fields?

- A. Echinochloa crus-galli
- B. Cyperus difformis
- C. Amaranthus spinosus
- D. Ipomoea triloba

30. Which pest management approach uses legal restrictions such as quarantine and import regulations to prevent pest entry?

- A. Cultural control
- B. Chemical control
- C. Legislative control
- D. Biological control

31. Which weed is commonly associated with rice fields and belongs to the family Cyperaceae?

- A. Echinochloa crus-galli
- B. Cyperus iria
- C. Amaranthus spinosus
- D. Chenopodium album

32. Which of the following insect mouthparts is adapted for piercing and sucking?

- A. Chewing
- B. Siphoning
- C. Piercing-sucking
- D. Sponging

33. The phenomenon of insect entering a dormant state during unfavorable seasons is called:

- A. Molting
- B. Diapause
- C. Migration
- D. Metamorphosis

34. The first instar larva of rice stem borer is known to cause damage by:

- A. Feeding on panicles
- B. Boring into leaf sheath and stem
- C. Scraping leaf surface
- D. Feeding on roots

35. Which among the following is a biological control agent used against coconut rhinoceros beetle?

- A. *Bacillus thuringiensis*
- B. *Oryctes rhinoceros nudivirus* (OrNV)
- C. *Metarhizium anisopliae*
- D. *Beauveria bassiana*

36. The active ingredient in herbicides like 2,4-D acts by:

- A. Inhibiting cell division
- B. Mimicking plant growth hormones (auxins)
- C. Blocking photosynthesis
- D. Disrupting lipid synthesis

37. Allelopathy refers to:

- A. Mutual relationship between weeds and crops
- B. Release of chemicals by plants that inhibit growth of others
- C. Symbiotic nitrogen fixation
- D. Competition for light and water only

38. Which insect growth regulator interferes with molting by inhibiting chitin synthesis?

- A. Pyriproxyfen
- B. Diflubenzuron
- C. Fipronil
- D. Imidacloprid

39. Which weed control method involves flooding of paddy fields to suppress weed emergence?

- A. Mechanical control
- B. Biological control
- C. Cultural control
- D. Chemical control

40. In IPM, the use of pheromone traps primarily helps in:

- A. Attracting pollinators
- B. Monitoring and mass trapping of pest populations
- C. Killing soil-borne pathogens
- D. Reducing weed seed banks

41. Which stage of insect life cycle is primarily targeted by systemic insecticides?

- A. Adult stage
- B. Egg stage
- C. Nymph or larval stage
- D. Pupal stage

42. Glyphosate is classified as a:

- A. Selective post-emergence herbicide
- B. Non-selective systemic herbicide
- C. Pre-emergence herbicide
- D. Contact herbicide

43. The active ingredient Imidacloprid belongs to which group of insecticides?

- A. Neonicotinoids
- B. Pyrethroids
- C. Organophosphates
- D. Carbamates

44. Insects with complete metamorphosis include the following except:

- A. Butterfly
- B. Housefly
- C. Grasshopper
- D. Beetle

45. Which pest of stored grains is characterized by a distinctive snout and feeds inside the kernel?

- A. Rice weevil (*Sitophilus oryzae*)
- B. Red flour beetle
- C. Grain moth
- D. Khapra beetle

46. The label color band indicating "Highly Toxic" pesticide formulation is:

- A. Green
- B. Blue
- C. Red
- D. Yellow

47. Which of the following weeds reproduces vegetatively through tubers?

- A. *Cyperus rotundus*
- B. *Echinochloa colona*
- C. *Amaranthus viridis*
- D. *Digitaria sanguinalis*

48. The first step in Integrated Pest Management (IPM) program development is:

- A. Implementing chemical control
- B. Identification and monitoring of pests
- C. Applying biological agents
- D. Destroying all pest habitats

49. Which beneficial insect acts as a parasitoid against aphids?

- A. *Chrysoperla carnea*
- B. *Trichogramma chilonis*
- C. *Aphidius colemani*
- D. *Coccinella septempunctata*

50. Which of the following pesticide formulations is designed for use in water without forming residues or clogging nozzles?

- A. Wettable powder (WP)**
- B. Emulsifiable concentrate (EC)**
- C. Water-dispersible granule (WG)**
- D. Dust (D)**

Agriculture Review

Answer Key

1. C

2. B

3. A

4. D

5. A

6. D

7. B

8. A

9. C

10. D

11. B

12. B

13. B

14. A

15. A

16. B

17. C

18. B

19. C

20. A

21. A

22. A

23. B

24. B

25. A

26. A

27. B

28. B

29. B

30. C

31. B

32. C

33. B

34. B

35. B

36. B

37. B

38. B

39. C

40. B

41. C

42. B

43. A

44. C

45. A

46. C

47. A

48. B

49. C

50. C