

Advanced Agricultural Science

Agriculture · Practice Test · 8 Questions

1. Which specific botanical family does the crop 'Quinoa' (*Chenopodium quinoa*) belong to?

- A) Amaranthaceae
- B) Poaceae
- C) Fabaceae
- D) Solanaceae

2. In soil science, what is the term for the process where nutrient-rich water leaches away from the soil, often due to excessive rain or irrigation?

- A) Salinization
- B) Eluviation
- C) Calcification
- D) Podzolization

3. The 'Green Revolution', spearheaded by Norman Borlaug, focused primarily on the development of high-yielding varieties of which cereal crop?

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

4. What is the primary function of the 'CIMMYT' organization, located in Mexico, in the context of global agriculture?

- A) Organic certification
- B) Seed bank and cereal improvement
- C) Irrigation technology
- D) Livestock breeding

5. Which form of nitrogen fixation occurs naturally in the root nodules of leguminous plants through a symbiotic relationship with *Rhizobia* bacteria?

- A) Biological nitrogen fixation
- B) Atmospheric nitrogen fixation
- C) Industrial nitrogen fixation
- D) Chemical nitrogen fixation

6. What defines the 'C4' photosynthetic pathway in certain plants like sugarcane and maize, distinguishing them from C3 plants?

- A) Higher cold tolerance
- B) Greater water use efficiency in high temperatures
- C) Lower light requirement
- D) Reduced need for carbon dioxide

7. In horticulture, what does the term 'scarification' refer to when preparing seeds for germination?

- A) Adding chemical fertilizers
- B) Removing the outer seed coat to break dormancy
- C) Cold stratification
- D) Drying the seeds in sunlight

8. Which historical agricultural method involves the controlled burning of vegetation to clear land for planting, often leading to temporary soil nutrient enrichment?

- A) Terracing
- B) Slash-and-burn
- C) Fallow rotation
- D) Drip irrigation