

Plant Hormones Quiz Answer Key PDF

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Which plant hormone is primarily responsible for cell elongation?

- A. Gibberellins
- C. Auxins ✓**
- D. Ethylene
- C. Cytokinins

What hormone is most associated with fruit ripening?

- A. Abscisic Acid
- C. Auxins
- D. Cytokinins
- C. Ethylene ✓**

Explain the significance of hormonal crosstalk in plant development and provide an example.

Hormonal crosstalk allows plants to integrate multiple signals for coordinated growth. For example, auxins and cytokinins balance root and shoot development.

What is the primary role of gibberellins in plants?

- A. Promoting cell division
- C. Inducing fruit ripening
- D. Closing stomata
- C. Stimulating stem elongation ✓**

Which hormone is involved in the response to abiotic stress like drought?

- A. Ethylene
- C. Abscisic Acid ✓**

- D. Cytokinins
- C. Gibberellins

Which hormone is known to delay leaf senescence?

- A. Gibberellins
- C. Auxins
- D. Ethylene
- C. Cytokinins ✓**

Which plant hormone induces seed dormancy?

- A. Auxins
- C. Abscisic Acid ✓**
- D. Ethylene
- C. Gibberellins

Which hormone primarily affects leaf abscission?

- A. Abscisic Acid
- C. Cytokinins
- D. Gibberellins
- C. Ethylene ✓**

Which of the following hormones are involved in seed germination? (Select all that apply)

- A. Gibberellins ✓**
- C. Abscisic Acid
- D. Cytokinins ✓**
- C. Auxins

Which of the following hormones are involved in cell division? (Select all that apply)

- A. Auxins ✓**
- C. Gibberellins
- D. Ethylene

C. Cytokinins ✓

Which hormones are involved in fruit development? (Select all that apply)

A. Auxins ✓

C. Ethylene ✓

D. Abscisic Acid

C. Gibberellins ✓

Explain how auxins contribute to phototropism in plants.

Auxins promote cell elongation on the shaded side of the plant, causing it to bend towards the light.

Describe the role of gibberellins in seed germination and how they interact with other hormones.

Gibberellins break seed dormancy and promote germination by stimulating enzyme production that mobilizes food reserves. They often counteract the effects of abscisic acid.

Which hormones play a role in stress resistance? (Select all that apply)

A. Abscisic Acid ✓

C. Gibberellins

D. Cytokinins

C. Ethylene ✓

Which hormones are known to regulate stomatal closure? (Select all that apply)

A. Auxins

C. Ethylene

D. Gibberellins

C. Abscisic Acid ✓

Discuss the mechanism by which abscisic acid helps plants cope with drought stress.

Abscisic acid induces stomatal closure to reduce water loss and triggers gene expression related to stress resistance.

How do cytokinins and auxins interact to regulate plant growth and development?

Cytokinins promote cell division, while auxins promote cell elongation. Their ratio influences processes like root and shoot growth.

Describe the process of fruit ripening and the role of ethylene in this process.

Ethylene accelerates ripening by breaking down cell walls, converting starches to sugars, and changing pigment.

Which hormone is crucial for phototropism in plants?

- A. Gibberellins
- C. Ethylene
- D. Cytokinins
- C. Auxins ✓**

Which hormones can delay leaf senescence? (Select all that apply)

- A. Cytokinins ✓**
- C. Auxins
- D. Ethylene
- C. Gibberellins ✓**