

PHYTOHORMONES.

Responses and growth in plants are controlled by chemical substances which are called Phytohormones.

- * A hormone is produced in specific cells and transferred to target site to show its influences.

Types OF Plant Hormones

- Auxins →
 - Auxins are a group of plant hormone
 - Synthesize in the Apical meristematic zones. (shoot tips)
 - Help in bending branches towards the light
 - Prefer to stay in shady side of the shoot
 - Auxins also promote cell elongation, root formation, protein synthesis, water uptake.
- Gibberellins → Gibberellins in plant stimulate:—
 - Stem elongation.
 - Seed germination.
 - Flowering
 - Opposes the effect of abscisic acid which inhibits growth.
- Cytokinins : → It is the plant hormone which
 - Promote cytokinesis (cell division)
 - Produced in dividing cells (root tip and shoot apex)
 - Help in breaking dormancy (inactive phase)
 - Help in opening stomata.

4.

Abscisic Acid (ABA) → It is a growth inhibitor hormone.

- It causes dormancy of seed, leaf buds and flower buds.
- It promotes falling / wilting of leaves and fruits.
- Responsible for closure of stomata.
- Works opposite to Auxins and Gibberellins, called stress hormone.

5.

Ethylene → It is a gaseous hormone, called growth promoter.

- Help in ripening of fruits.
- It breaks dormancy of underground stems (Rhizomes, bulbs, Tubers.)

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Growth promoters → 1. Auxins

2. Gibberellins.

3. Cytokinins.

5. Ethylene.

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Growth Inhibitor → 4. Abscisic Acid.
