RAMA UNIVERSITY

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Course: B. Tech Biotechnology
Sub Code: BBT-515

Semester: 5th
Sub Name: Plant Biotechnology

LECTURE 5

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PLANT HORMONES

- Plant hormones, which are active in very low concentrations, are produced in certain parts of the plants and are usually transported to other parts where they elicit specific biochemical, physiological, or morphological responses.

- They are also active in tissues where they are produced.

Plant hormones (or plant growth regulators, or PGRs) are internally secreted chemicals in plants that are used for regulating the plants' growth.

According to a standard definition, plant hormones are: Signal molecules produced within the plant at specific locations, that occur in extremely low concentrations, and cause altered processes in target cells at other locations.

CHARACTERISTICS

The concentration of hormones required for the plant response is very low(10-6 to 10-5M), comparing with the requirement of mineral and vitamin for plants.

The synthesis of plant hormones is more diffuse and not always localized.

Classes of Plant Hormones

There are two major classes of plant hormones:

Class	Action	Examples
Promoters	Cause faster growth	Auxins Cytokinins Gibberellins Brassinosteroids
Inhibitors	Reduce growth	Ethylene Abscisic acid Jasmonic acid

WHAT DO HORMONES CONTROL IN PLANTS?

Roots and shoots growth

Seed germination

Leaf fall

Disease resistance

Fruit formation and ripening

Flowering time

Bud formation

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QUIZ

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