

## Lecture 11, Plant Growth Substances 2

- Cytokinins, third class of plant growth regulators
- Characteristics
  - stimulate cell division
  - delay senescence (death)
  - can promote organ formation in combination with other plant growth regulators, mainly auxins.
    - ratio of auxins to cytokinins
  - promote outgrowth of lateral buds
  - tumors
- Ethylene is the fourth group of growth substances
- Characteristics
  - gas
  - epinasty, abscission, discoloration, fruit ripening
- Practical uses
  - most important growth regulator commercially
- Used by plants as a signalling system
- Abscisic acid, a fifth class of plant growth substances
- Characteristics
  - tends to restrain, inhibit or suppress growth
  - how was it discovered
  - role in seed germination
  - role (?) in gravity detection in roots
    - root cap, starch grains, amyloplasts
- Summary
  - notion of a balance between substances
  - notion of differential sensitivity versus change in concentration