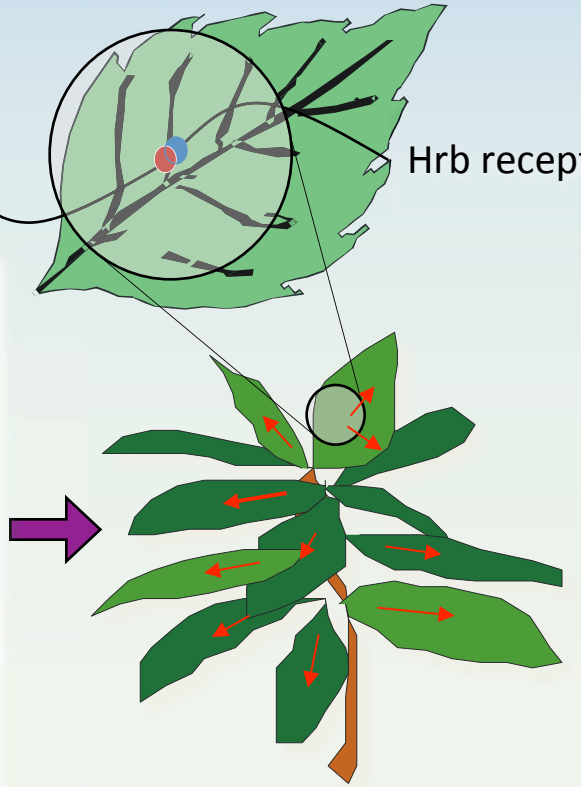
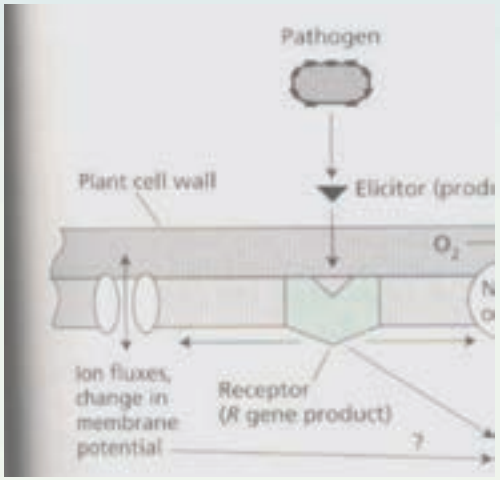
Harpin mode of action





The receptor recognizes the signal transposed by the harpin protein and spreads it throughout the plant via systemic transduction pathways.

Harpin itself does not penetrate into the plant. Only the signal is systemic.

Harpin Mode of Action

- Activates plant defense and „survival“ mechanisms
  - Pest and disease resistance
  - Stress tolerance
  - Photosynthesis activation
  - Cellwall permeability
  - Nutrient uptake
  - Reductive potential

→ Improvement of plant health status

→ Increase of physiological activity

→ Stimulation of growth and reproduction

Harpin Mode of Action

Activation of plant physiology

- Growth genes
  - Ethylene response element-binding protein family
  - Hypocotyl elongation transcription factors
  - Camoldium and calmodulin-like proteins
  - Growth transcription factor
  - Sugar synthase, glucose, fructose and others
  - Embryogenesis enzymes
- Cell wall development related genes
  - Cell wall development kinases
  - Gibberellin-induced cell wall proteins
  - Auxin response genes
  - Touch gene
  - Leafy gene