Management of diseases of peas, lentils and chickpeas - Diseases of seeds, seedlings, and roots

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Diseases of seeds, seedlings and roots: Pythium
Pythium

Causal pathogens: *Pythium* spp.  
(oomycete; “water mold”)

Conditions that favor infection:

- **Soil moisture:** high  
- **Soil temperatures:** wide range of soil temperatures, but low to moderate soil temperatures are very high risk

Symptoms:

- **Seed decay** and **damping-off**, resulting in poor stand establishment.
Pythium

Susceptibility:
• Chickpeas >> lentils, field peas
  • Chickpeas are highly susceptible.
  • Lentils and field peas, while also susceptible, are less susceptible than chickpeas.

Seed treatments:
• Very effective.
• Pythium causes losses early in crop development when the concentration of active ingredient in affected tissues is high.
Pythium

Seed treatment:

- **metalaxyl** *(Allegiance FL, Sebring 480, etc.)*
- **mefenoxam** *(Apron XL)*
  - Chemical structure and efficacy are very similar
  - Low application rate often utilized
  - Use high application rate in high-risk situations

- **ethaboxam** *(Intego Solo)*.
  - Registered on chickpeas and lentils, not field peas
  - On lentils, 0.3 fl oz/cwt application rate recommended
  - Best used with metalaxyl or mefenoxam