Soilborne diseases of melon and watermelon in Arizona

The University of Arizona

Extension Plant Pathology

http://ag.arizona.edu/PLP/plpext

Monosporascus cannonballus

- **Why has *Monosporascus* vine decline become such a problem in the past 10 years?**
  - ***shorter rotation intervals with other crops***
  - ***cultural practices that result in poorly developed and shallow root systems***
  - ***misidentified***
  - ***hybrids with earlier, heavier fruit set***

Macrophomina phaseolina

- **Why do we see *Macrophomina* crown rot on drip irrigated melons but not on furrow irrigated melons?**
  - ***stress factors in the upper soil, salts and less moisture***
- **Is this the same strain that causes root rot (Charcoal rot) in melons?**
  - ***laboratory evidence indicates 'yes'***
- **Is it a disease of watermelon?**
  - ***causes some root rot but not crown rot***

Rhizoctonia solani

- **Under what field conditions could *Rhizoctonia* be a problem?**
  - ***buried drip with reduced tillage after grains or green manures***
- **Is it more of a problem on watermelon than on melon?**
  - ***no evidence, but probably because of general differences in rotations***

Fusarium wilt or *Fusarium* root and crown rot

- **Why don't we have problems with *Fusarium* wilt in melons?**
  - ***Arizona soils are not conducive to Fusarium diseases in general***
- **Is *Fusarium* root rot a potential problem in watermelon?**
  - ***probably not, incidences seem to be isolated***

Pythium root rot and damping-off

- **Should melon growers treat for *Pythium aphanidermatum*?**
  - ***Depending on field history, preventive treatment may be economic, but care should be taken to prevent development of resistance***
- **Is it more of a problem on watermelon?**
  - ***We have more records on watermelon but few on cucurbits combined***