

Observations on Pink Rot Control

Trent Taysom, Jeff Miller, Cheryn Clayton,
Scott Anderson, Braylen Hamilton, and
Collin Carpenter



Pink Rot Management

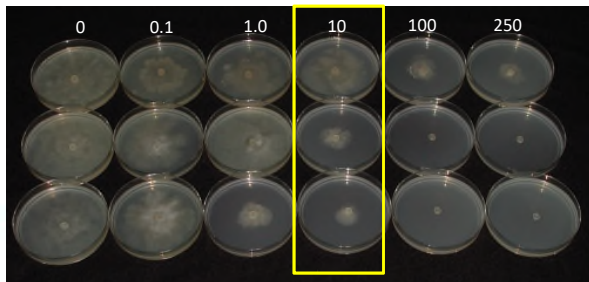
1. Field selection/crop rotation
2. Adjust soil pH by lime application in low pH soils
3. Plant less susceptible varieties
4. Proper irrigation management
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7. Apply post-harvest fungicides
8. Grade out infected tubers going into storage
9. Reduce tuber pulp temperatures to 55 F or lower



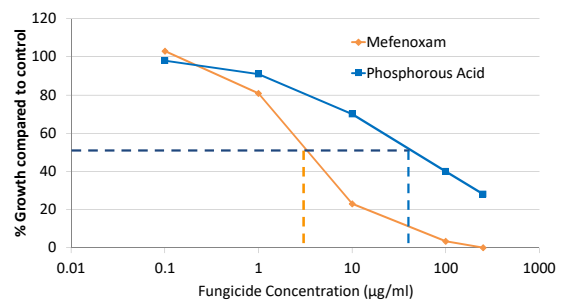
Pythium Leak vs. Pink Rot

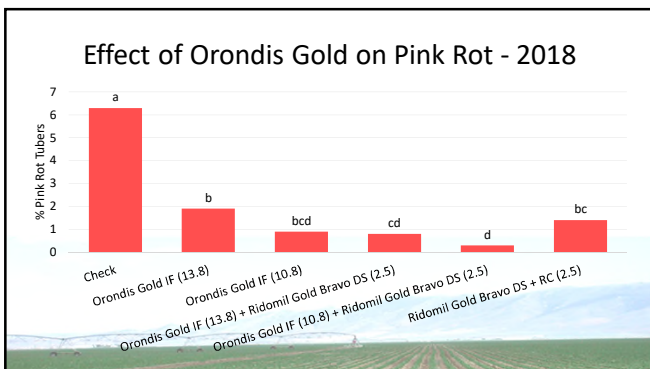
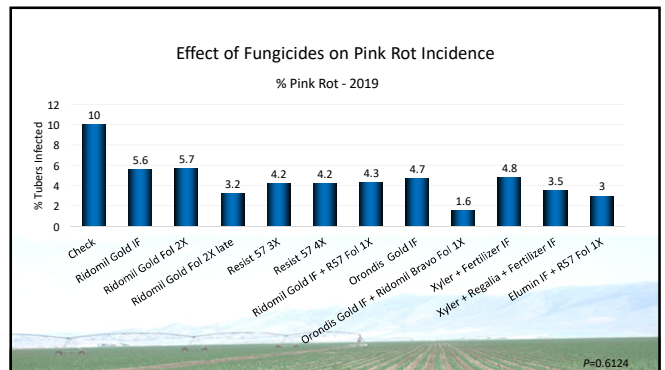
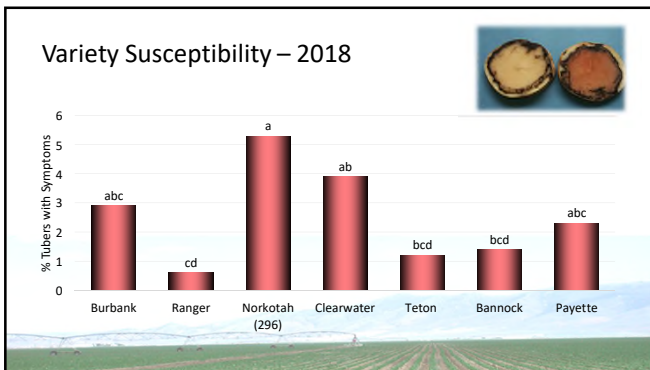
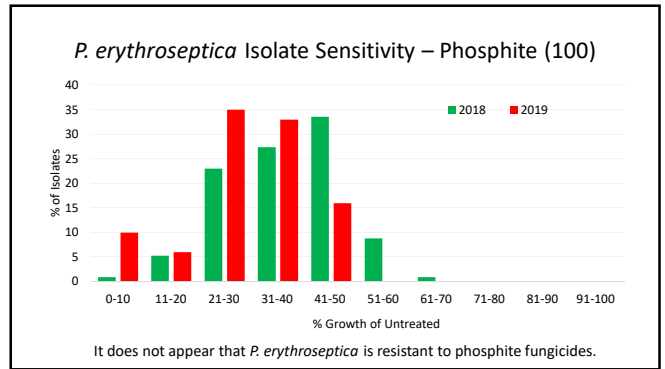
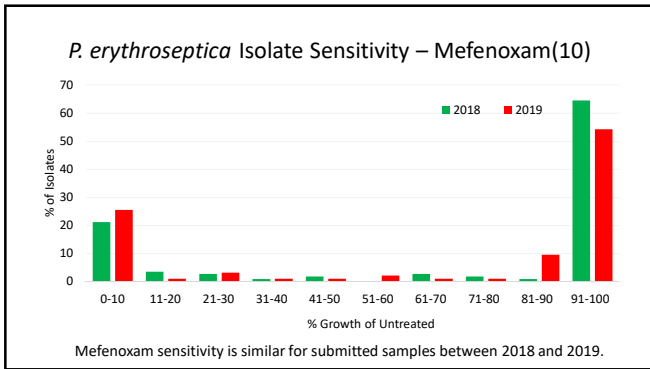


Pink Rot vs. Pythium Leak



Effect of Phosphite and Mefenoxam on *P. erythroseptica* Growth





- ### Fungicides for Pink Rot Control
- Mefenoxam/metalaxyl (Group 4)
 - Ridomil Gold products
 - Ultra Flourish
 - MetaStar
 - Xylar FC
 - Phosphorous acid (Group 33)
 - Phostrol
 - Resist 57
 - Phiticide
 - Others
 - Cyazofamid (Group 21)
 - Ranman
 - Ethaboxam (Group 22)
 - Elumin
 - Oxathiapiprolin + Mefenoxam (in-furrow only; Group U15 + 4)
 - Orondis Gold

Phosphite (Phosphorous Acid) Mode of Action

- Fungicide
 - Relatively weak
 - Active against mefenoxam-resistant organisms
- Systemic properties
- Induces defense response
- Relatively safe
 - LD50 > 5,000 mg/kg (absorption/ingestion)
 - Signal word = Caution



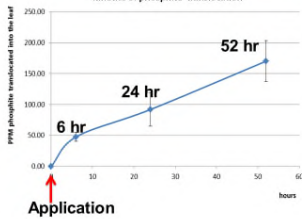
Phosphites not working as well as expected?

- Is resistance developing to the phosphites?
- Is irrigation interfering with product uptake?
- Is the timing of application optimal?

Maximum translocation to inside of leaves requires up to 2 days

Gefu Wang-Pruski, Dalhousie, NS

Kinetics of phosphite translocation



How important is the time between application and irrigation?

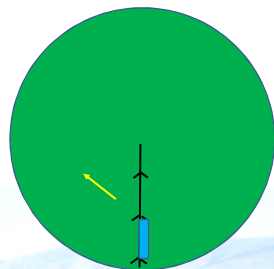
Potato Irrigation – Southern Idaho

- All potatoes are irrigated
- Difficulty of scheduling irrigation around application



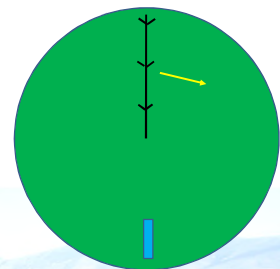
Treatments

1. Non-treated check
2. 48 hours pre-irrigation (PI)
3. 24 hours PI
4. 12 hours PI
5. 6 hours PI



Treatments

1. Non-treated check
2. 48 hours pre-irrigation (PI)
3. 24 hours PI
 - Starting at full emergence
 - Starting at 15 mm tuber size
 - Starting at row closure
4. 12 hours PI
5. 6 hours PI

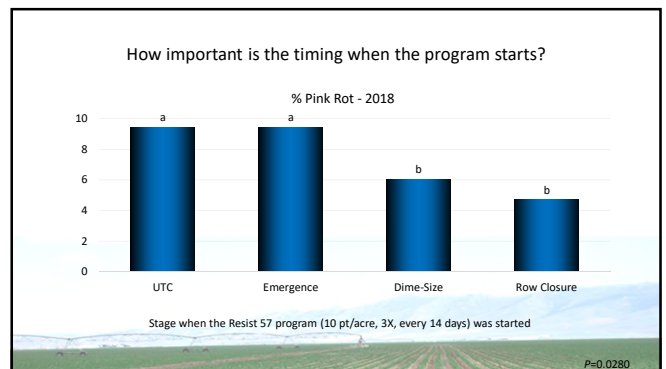
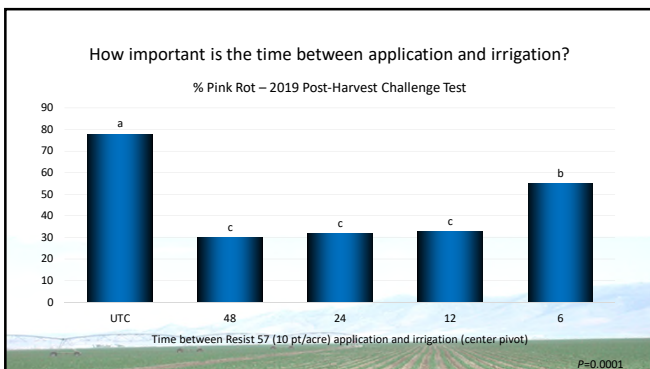
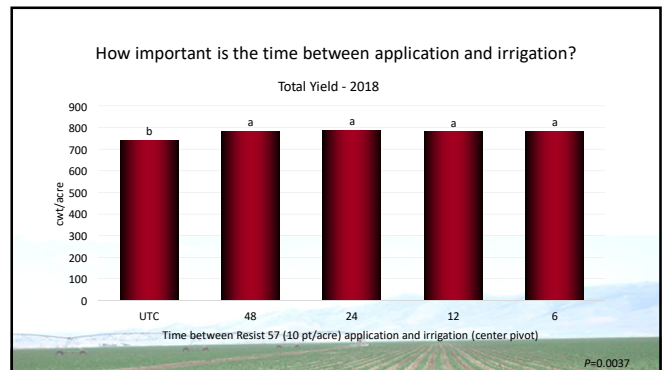
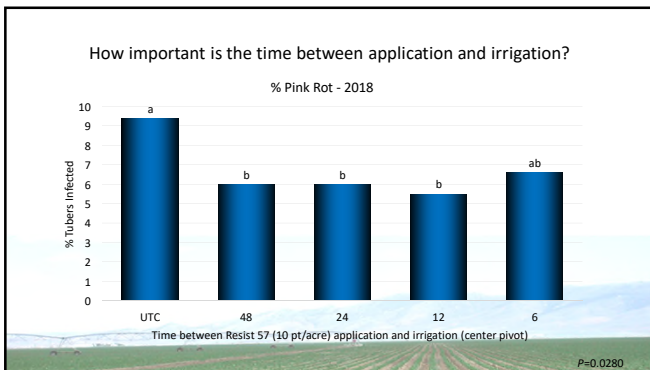


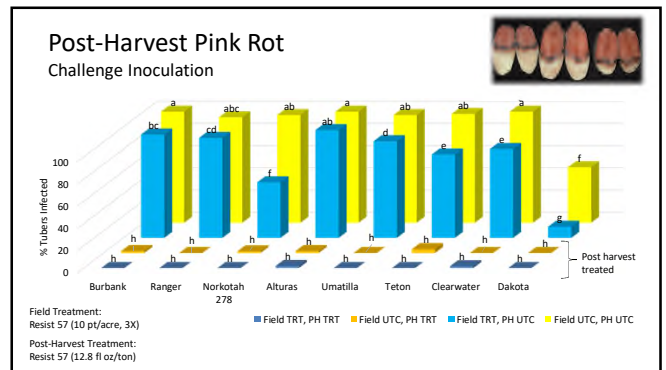
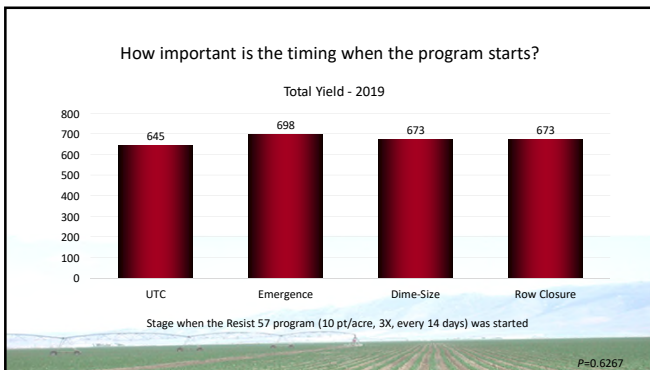
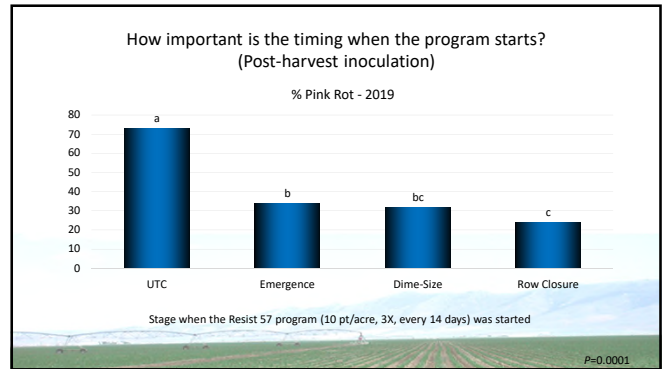
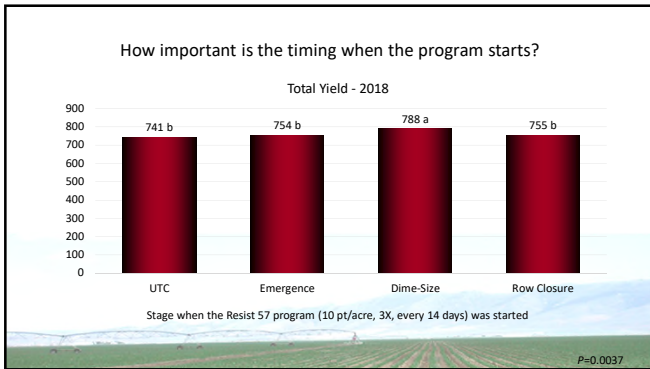
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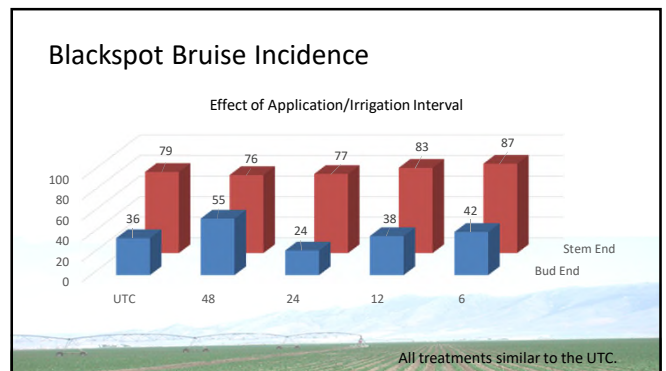
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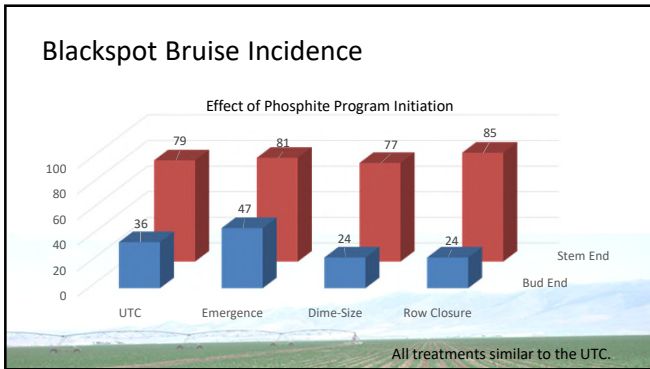




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- ### Summary
- No evidence of resistance to phosphites in *P. erythroseptica*.
 - 12 hours needed between application and irrigation for best phosphite efficacy.
 - Applications should begin shortly after tuber formation.

