SUPPRESSION OF MACROPHOMINA WITH WHEAT?

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1962: fumigation with methyl bromide + chloropicrin reported by Wilheim to control Verticillium wilt of strawberry.
1962: fumigation with methyl bromide + chloropicrin reported by Wilheim to control Verticillium wilt of strawberry. Used as a preplant eradicant in nearly all conventional strawberry plantings in California since...
Are there California wheat cultivars that suppress Macrophomina crown rot?
Greenhouse trial Summer & Fall 2015
Greenhouse trial Summer & Fall 2015

July 22, 2015
Mean Fresh Wet (per pot) after 1 month

- Blanca Grande 515
- Cal rojo
- Patwin 515
- Redwing
- Summit 515

Variety: Blanca Grande 515, Cal Rojo, Negative Control, Patwin 515, Positive Control, Redwing, Summit 515, WB 9229

Legend: C, B, A, and V represent different levels of statistical significance.
Plant survival (cv Monterey)
Are there California wheat cultivars that suppress *Macrosporina* crown rot?

Possibly…
- Summit 515 (hard red spring wheat)
- Patwin 515 (hard white spring wheat)
- Cal Rojo (hard red spring wheat)
MSA medium: Zveibil, A., Mor, N., Gnayem, N., and Freeman, S. 2012.

Macrophomina phaseolina
Fusarium oxysporum f. sp. fragariae
Verticillium dahliae
Verticillium dahliae naturally infested field

Treatments
1. Wheat + ASD
2. Wheat w/o ASD
3. Barley + ASD
4. Barley w/o ASD

ASD with Rice Bran
Cal Poly Strawberry Center
Development and Deployment of Systems-Based Approaches for the Management of Soilborne Plant Pathogens

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Verticillium dahliae naturally infested field

- **Dominus**
  - 40 gal/Ac
- **Tri-Con 50/50**
  - 350 lb/Ac
- **Pic-Clor 60**
  - 42 gal/Ac
- **Non-fumigated**
Verticillium dahliae naturally infested field
Soilborne pathogens are NOT equal;
Soilborne pathogens are NOT equal;
Knowing which one is established in your field is important;
Soilborne pathogens are NOT equal;
Knowing which one is established in your field is important;
Different treatments impact pathogens differently.