



TOMATO INFO

**Virtual Tomato Meeting
Local Field Observations
Fusarium wilt article**

Our regional processing tomato production meeting annually held in early January in Woodland is cancelled due to Covid 19 concerns. As a substitution, a virtual, Zoom-style webinar as a single Central Valley-wide, winter-timed educational event is planned for Friday, January 22, 2021. Details will follow in early January.

What: Processing Tomato Production webinar
When: January 22, 2021, Friday morning, ~9 to noon
Where: Zoom webinar format- registration information will follow in January.

I will continue part-time in the local University program. Covid-related economic setbacks are affecting our University budget. Thus, discussions have been suspended for a replacement vegetable crops advisor for this 3-county position.

In my 2020 visits to local tomato production fields, my observations are:

- continued pressure from Fusarium wilt
- major increase in crown-rotting *Fusarium falciforme*, a relatively new issue
- heightened increase in breakdown of root knot nematode resistant varieties

As available acres for rotating with tomatoes decrease with continued orchard plantings, these soilborne pests will remain a concern.

Recently, UC Davis plant pathologists Kelley Paugh and Cassandra Swett released an article of some of their research efforts and understanding of Fusarium wilt race 3. Here's a link to that article: [Fusarium wilt of tomato, caused by *Fusarium oxysporum* f. sp. *Lycopersici* race 3 – a soil-borne killer](#)

My takeaways from the paper are:

1) our understanding of the persistence of Fusarium wilt may be associated with the pathogen surviving on certain weeds and crops rather than its own ability for long-lived survival. Better crop rotational choices to suppress or reduce the Fusarium wilt pathogen in the soil included cotton, bean crops (garbanzo, fava, lima and green beans), grass crops (including wheat and potentially corn and rice as poor hosts, but not field tested) and onion. The poor crop-rotational choices in Fusarium wilt-infested fields were pepper, melons, pumpkins and sunflower. The winter crops to avoid in rotation with tomato in those Fusarium-infested fields were hairy vetch, broccoli and lettuce.

2) As the pathogen can survive in soil and plant debris carried on equipment from field to field, cleaning equipment is a reasonable, preventive pest management strategy. While the focus should be on harvest equipment due to the higher chance of moving infested plant debris, it is not the only point of concern. Of course, religious cleaning of equipment between fields is easier said than done. The Davis group is investigating effective chemicals to reduce pathogen transfers between fields, but traditional hand removal of bulk of soil and plant tissue buildup on equipment remains helpful and likely necessary even with an effective chemical included.

Respectfully submitted,

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