



## TOMATO INFO

**Field Notes**  
**Field Meeting on Varieties**  
**Tomato Powdery Mildew**

### FIELD NOTES

The early crop is clearly behind harvest schedule and lower yielding compared to the crop that follows. Fruit size is extraordinarily large in many fields. Soil compaction due to tillage activity under wet soil conditions is apparent. While soil compaction should be avoided, crop development in drip-irrigated fields appears to fare better than furrow through the compaction.

Conditions in the spring were favorable for bacterial speck, however disease did not generally appear to spread with the first few rain events. By late spring with continued cool, rainy weather, bacterial speck developed especially in the earlier plantings and caused suppressed growth, poor plant vigor and reduced fruit set.

Note: for bacterial speck infested fields to be cropped back to tomatoes in 2011, a thorough after-harvest burying of tomato plant debris is suggested to reduce pathogen carryover. In drip-irrigated fields with shallow buried tape, the tillage task of covering infested debris might be more challenging. The bacteria can apparently overwinter better when not subjected to soil microbial activity. It is best to schedule severely infested fields for later planting when threat of cool, wet weather normally diminishes.

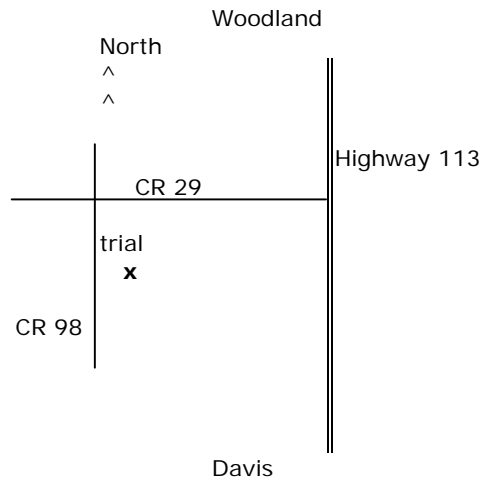
Tomato spotted wilt virus is relatively widespread in our area, but mostly at a low level (much below 1%). The virus is vectored by thrips. Locally, thrips appear to often remain at moderate to high levels from late spring to early fall. While the virus is a concern for all, it appears reasonable that geographic areas that have historical damage levels above 1% might consider a spray program when plants are young and thrip activity is high. Perimeters of fields often are the most damaged, indicating an outside source of the virus. Spread within the field from early infections and subsequent movement might well lead to high crop losses. Later infections, when plants are more mature, cause much less damage. Self assess benefit of spray programs by leaving some unsprayed check strips.

### FIELD MEETING ANNOUNCEMENT

Mid Maturity Tomato Variety Evaluation Trial  
10:30am to noon, **Thursday, 19 August 2010**  
Woodland-Davis area  
SE corner of County Road 98 X CR 29 (1/2 mile south)  
Light lunch will be available for the first 25 attendees.

Seventeen replicated and 13 observational, mid-maturity processing tomato varieties were transplanted April 26 in a commercial field planted to HyPeel 849. Cooperators are Steve Meek and John Pon of J.H. Meek and Sons. Stand establishment was very good. Irrigation was entirely by furrow. Growth was vigorous. Verticillium wilt is very prevalent, affecting both vigor and canopy cover. Incidence of Tomato spotted wilt virus is low. Harvest is expected around 25 August. We are also evaluating a foliar nutrient on HyPeel 849.

Directions: From Highway 113, take the CR 29 exit heading west 2 miles to CR 98. Turn south toward Davis on CR 98 for 0.5 mile. Signs will be posted near the field.



### **TOMATO POWDERY MILDEW CONTROL**

Tomato powdery mildew has been late in developing with some reports from PCAs of activity in our area by early August this year. To date, I have seen very limited mildew in my field visits.

When to begin spraying in a cost effective approach is a difficult decision. None of the fungicides are eradicates. Beginning sprays when mildew is first detected in the area may be a compromise between very early preventive sprays and delaying until finding a full-blown episode in a specific field. Young plants appear less susceptible than more mature plants. My field observations are that plants approaching full flowering, as early as 70 days before harvest, is a susceptible beginning stage. Most protective sprays are probably not sufficiently effective if applied beyond 14 days ahead of the onset. Repeat applications are needed. While infection favors milder temperature conditions, high temperatures cause the rapid desiccation of leaves.

The testing effort continues as a California Tomato Research Institute funded project under the lead of UC San Joaquin County Farm Advisor Brenna Aegerter. Two local tests are underway this year to evaluate application timing and materials, especially sulfur, including a spray formulation.

Fungicides: Timing of fungicides as a preventive appears important. Under high disease pressure, applications might not be effectively stretched to 14-day intervals. Dusting sulfur is a wise, initial early choice because of additional benefit from russet mite control. As we enter mid August and September, the added value of materials like Quadris or Cabrio for blackmold fruit rot control is attractive. Rotating chemistry for mildew resistance considerations remains prudent. Quadris, Cabrio and Flint share similar modes of action. Difenoconazole (Inspire) in Quadris Top has the same mode of action as Rally.

Submitted by,

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Farm Advisor, Yolo, Solano & Sacramento counties

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