

Santa Maria Irrigation Field Day May 11, 2011

This season we have incorporated reduced sprinkler irrigation on approximately 100 acres. These acres have our better drained soils and well water with lower than average salt content. As we gain experience we expect to gradually phase in more acres if it continues to prove beneficial.

Pros:

- 1. Historically, we have found reduced sprinkler use can advance the onset of fruiting by as much as a week, with equal or greater total production. However, weather plays a major role in this effect and this year with more cool, rainy periods we saw little difference.
- 2. Reduced reliance on sprinklers can potentially lead to savings in: sprinkler rental (or purchase); labor to install, move and maintain equipment, and; total water use and pumping expense.
- 3. Although various leaf spot diseases have not been a major pest on our crops, reducing overhead irrigation should reduce the incidence of these diseases in years with lower rainfall.
- 4. Reduced runoff from reduced overhead irrigation has potential benefits we all are aware of.
- 5. Drier furrows during the early season can make tractor work and hand labor easier to schedule when sprinklers are not being used constantly.

Cons:

- 1. Greater management effort must be expended to monitor soil moisture and soil salt levels.
- 2. At times, dry windy weather can deposit large amounts of dust on the plants that would normally be washed off with overhead irrigation.
- 3. Controlling two-spotted spider mites could be more problematic some years due to drier, dustier conditions, and lower canopy humidities can inhibit predatory mites in biological control programs.
- 4. Abnormally hot weather may be somewhat more detrimental to young plants without the cooling, evaporative effect of free moisture on the leaves and in the furrows.

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