UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION TULARE COUNTY

Prune News

July 2000

From The Field

Prune rust: As of July 10, 2000, no prune rust had been found in untreated Tulare County prune orchards. From now on, treatment is no longer recommended; any new prune rust infections will result in defoliation following harvest. Past research has determined that postharvest defoliation does not affect production or quality of the subsequent crop.

Note: Treating for prune rust **prior to its presence in the orchard**, especially with short residual products like sulfur (about 2 weeks), is most often a waste of money.

Prune drop: Considerable premature prune fruit drop has occurred within the last 2-3 weeks due to recent hot weather. These are what most refer to as "blue prunes" that "color up" prematurely and drop due to a combination of heat and tree stress; extent of drop parallels degree of stress for a given air temperature. Most "blue" prunes have a portion of the fruit showing visible injury (often sunken, dark areas on the fruit). Those orchards where a good vegetative cover has been maintained, resulting in cooler, in-orchard conditions, have experienced minimal drop.

Note, sound prunes are also beginning to color naturally now too. These will mature normally.

Spider mites: We have seen more spider mite problems than usual this season in Tulare County prune orchards. Usually spider mites are rarely a problem but this year several orchards have required treatment. Spider mites favor hot dry conditions (the early heat probably encouraged the first mites) and trees that are water stressed. In-season insecticide treatments can also trigger spider mite outbreaks by eliminating predators.

If populations are low, i.e., just starting to build up, we suggest using horticultural mineral spray oil for control. This treatment does not kill all of the mites but simply acts to "knock down" the population to where mite predators can be effective. Higher populations, especially if predators are not present, will require conventional acaricide treatment. If an active predator population exists (predaceous mites, six-spotted thrips, etc.), delay treatment to evaluate their effectiveness.

Scab: A number of growers have found some scab this season even though conditions were relatively dry during bloom. My observations are that those that used bloom time treatments are fairly clean while those untreated orchards have some scabby fruit – apparently enough moisture as dew was present during bloom to initiate scab. The good news is that the scab I have observed is really minimal and likely won't "score." Most is the "soft scab" that often disappears following dehydration.

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Harvest – Your Last Chance to Maximize Size and Dry Yield

REMEMBER:

French prunes are mature and are highest in total sugar content when individual fruits average 3 – 4 lbs flesh pressure – this coincides with flesh color changing from green to yellow. Harvesting before this physiological stage of development results in: 1) higher dry away; 2) smaller fruit size; and 3) lower total dry yield. French prunes remain in this optimal condition for harvest for 7 – 10 days.

Here are a couple of harvest tips to get the best dry away, size, and yield, especially when working with your dehydrator's prorate:

1. **Predict harvest time:** Flesh pressure drops from 1 to 2 lbs per week. Try not to initiate harvest prior to 4 lbs flesh pressure unless dryer prorate or physical ability to "get over the field" precludes a 7 to 10 day harvest period.

2. **Crop size:** Heavy crops result in smaller sized fruit. Delay harvest as long as possible in a heavy cropped situation to allow maximum sugar development (i.e., definitely not before 3 – 4 lbs flesh pressure has been reached). This usually means sustaining some fruit drop before picking – don't worry, the benefits of maximizing sugar content (which is highest at 3 – 4 lbs flesh pressure) far outweigh what is usually minimal loss of crop. Harvest before maximum sugar is attained results in even smaller sized fruit with a high dry away – expensive to process and not worth much.

   Harvest your lighter blocks first. Fruits from lightly cropped blocks have higher sugar content and will have better dry away resulting in good dry fruit size and yield.

3. **Field sizing:** Field sizing involves a bar or chain "sizer" mounted on the harvester to dispose of small and undersized fruit in the field. Such fruit are costly to haul and dry and of little or no value. Consider these points, however, to avoid trouble:

   a. ***Crop size:*** Field sizing is best suited for heavy crops with a fair amount of small or undersized fruit. Light to moderate sized crops usually do not benefit from sizing, which, in fact, may inadvertently eliminate some valuable fruit.

   b. ***Chain/bar size:*** Bar spacing or chain size determines what sized fresh fruit are eliminated. Recommended sizes range from 1" to 1 1/8" depending on harvest timing (see below).

   c. ***Harvest timing:*** Early in the harvesting period sugar content is low and dry away high resulting in smaller fruit sizes than if harvest was delayed. Use the larger bar spacing or chain size (1 1/8") early in the harvest season and the smaller size as harvest progresses and sugars increase.

   d. ***Monitor what you are doing:*** This can't be emphasized enough. Continually look at what is being removed by the sizer. Without careful monitoring, valuable fruit, thus money, can be inadvertently lost.

Postharvest tips:

Nitrogen (N) fertilizers: Don't apply N after harvest. Uptake is poor (temperatures are cooler and "just shaken" trees have gone through a fair amount of defoliation in addition to probable root damage). The result, wasted money.

Postharvest irrigation: If trees are relatively healthy and have not sustained much defoliation, irrigation is advised. On the other hand if trees have defoliated to large extent either from lack of water or prune rust, delay irrigation until late September. Irrigating

such trees while growing conditions are still good results in unwanted fall bloom and new vegetative growth.

Perennial weed control: An excellent time to control perennial weeds (Bermudagrass, Johnsongrass etc.) with systemic herbicides is in the fall, prior to their dormancy. For best effect, the weeds should be actively growing so when the herbicide is applied, it will be taken into the roots and storage organs. Such weeds don't often emerge in spring when treated the previous fall.

Preemergence herbicides: October is the best fall month to apply preemergence herbicides on your borders for winter annual weed control. Remember, preemergence herbicides kill winter annual weeds as they germinate, so they must be incorporated (usually by rainfall or irrigation) to be effective. Try and plan your application prior to a rain event.

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Gophers: Each year I get 3 – 4 calls in June about prune trees suddenly dying. Invariably, these trees have been killed by gophers that have girdled (removed the bark) from the crown of the tree below ground. The damage occurs the previous fall and winter – gophers get up on (in) the border where conditions are dry and feed on the trees' bark. When hot temperatures occur again, the tree collapses. Monitor your orchard this fall for gopher activity. If you have an active population, use a gopher machine or traps to control it. Remember, if you use a gopher machine, do not treat the entire orchard. Just treat the infested area – treating the entire orchard can aid in spreading gophers over a larger area by providing a man-made burrow network.