

## **1Blue Prune Drop and Leaf Scorch**

*Bill Krueger UC Farm Advisor, Glenn County*

Blue prune drop and, in some cases, an associated leaf scorch often develops following the rapid onset of high temperatures in June or July. Damaged prunes develop color prematurely and may drop from the tree. The more sun exposed fruit such as the top or south side of the tree are more affected. Often the sun exposed side of the fruit will be sunken or flattened. Leaf scorch and die back may develop in leaves and twigs near the damaged fruit. When damaged leaves dry, the veins may be a darker brown than the rest of the leaf (Fig. 1).

The problem is associated with heat stress. Under certain conditions, excessive heat results in damage to the fruit which may produce a toxin which is transported to spurs, leaves and shoots resulting in the leaf scorch symptoms. Leaf scorch symptoms are always associated with damaged prunes. They do not occur in areas of the tree where there was no fruit or on young trees without crop.

Anything which affects fruit temperature can have an effect. This could include:

1. Irrigation – Drop and particularly scorch are generally more severe on shallow soils with limited

water holding capacity or in orchards which were towards the end of their irrigation cycle at the onset of heat. Adequate moisture insures maximum evapotranspiration and cooling of the plant.

2. Tree Position or Location - Leaf scorch is usually worse on border trees, or on the south side of individual trees (areas with greater sun exposure).

3. Cultural Practices - It is felt that the problem is less severe in orchards with cover crops than in clean tilled or drip irrigated orchards. Evaporation from the cover crop would be expected to contribute to cooling of the orchard.

4. Nutrition - While the problem does not appear to be directly related to potassium deficiency, anything which adversely affects tree health and condition could contribute to higher tree and fruit temperatures.

While we don't have any sure ways of preventing this problem, making sure trees are healthy, vigorous and well supplied with water should help. Because the damage is caused by heat and not a disease, it should not continue to expand in the tree. Damaged wood should be pruned out during the dormant season.

**Figure 1. Blue prune and leaf scorch symptoms showing damaged fruit, scorched leaves and darkened leaf veins**

