



Orchard Notes

August 2002

LATE SUMMER UPDATES



PEACHES

ORIENTAL FRUIT MOTH

This season has been particularly bad for Oriental fruit moth (OFM) worm damage. Many extra early blocks had some worm damage and a few had extremely high damage. It is unusual to see this much worm damage and so early in the season. High shoot strikes were even found in some blocks where pheromone-mating disruption has been used for several years. The fourth generation started around July 15 in Yuba City, which was earlier than usual. The larvae appear to be hatching over a longer period than normal, which has made timing sprays very difficult. Where populations were moderate to high, we recommended spraying at the beginning of the fourth flight rather than waiting for the usual 400-500 (ripening fruit) or 500-600 degree-days. Many of our orchards have been using only pyrethroid sprays for several years and it appears there may be potential tolerance of OFM to pyrethroids. This has been a subject of concern and will need to be studied next year.

There is potential for the fifth OFM generation to occur in early to mid-August. If populations are allowed to build the remainder of the season, this could lead to high populations of the over wintered generation next spring. I would encourage any grower that had worm damage in fruit, shoot strikes, or moderate to high trap catches, to apply sprayable

OFM pheromone at the beginning of the fifth generation in August. This may help to disrupt mating during the last generation and to lower OFM populations for next season. To time this pheromone spray, watch for the trap catches to drop to zero or low numbers. Once they rise again, this would be the start of the fifth generation and when the pheromone spray should be applied. If there are props in the orchard, spray as soon as harvest is completed in the later varieties. It is important to get this sprayable pheromone on as early as possible after the fifth biofix.

CULTURAL PRACTICES

Irrigation - August is still a high water use month for peach trees. To avoid or decrease the number of double fruits on the tree next year, make sure there is no water stress at time of carpel differentiation during late August and early September. Ensuring that trees are not stressed from about August 20 through September 5-10 will decrease the likelihood of double fruits in 2003.

Nitrogen - Evaluate leaf nitrogen levels from samples you took in July. Adequate nitrogen levels are from 2.6-3.0%. If levels are over 3.0% and there is more than one to two feet of new shoot growth, consider reducing the amount of nitrogen applied. Many of our peach orchards are too

vigorous which leads to shading out and loss of fruitwood in the lower part of the tree. Overly vigorous trees should be left unfertilized to allow the nitrogen level to drop to a more optimum range. Where leaf levels are adequate, split nitrogen applications between late summer after harvest, and *August 2002 Orchard Notes, page 2*

Walnuts

CODLING MOTH

Many orchards have caught few moths in pheromone traps this season, and it appears populations are low. To determine a need for third flight sprays, inspect nuts in the canopy for codling moth damage. Generally if there is obvious canopy infestation (more than 2%-3%), then spray for third flight at 250-300 degree days from the third biofix. Table 1 from the U.C. IPM guidelines on managing codling moth can be used as a reference.

WALNUT HUSK FLY

Continue to monitor husk fly until hull split since flies emerge from the soil over an extended period. Once eggs are found in females, there is one week to spray before egg laying occurs. Many of you have already sprayed and should be prepared to treat again if necessary. If females with eggs continue to be found on traps, treat three to four weeks after the first spray. This accounts for a spray residual of less than 10 days and two weeks for egg development. Sometimes a third spray is also necessary in later season varieties. The product Success, which contains the active ingredient spinosad, was recently registered for use on walnuts. It has been shown to be effective on adult fruit flies at low rates. As with any new material, use it on limited acreage at first.

EARLY HARVEST WITH ETHEPHON

To advance harvest by about 7 to 10 days, the plant growth regulator ethephon (Ethrel) should be applied when the packing tissue of all nuts turns brown. This often occurs around the third week of August for Ashley and in early September for Hartley in our area. Nut removal is usually around 90% and a second harvest is often needed. Another approach to using Ethrel is to apply it about 10 days prior to the normal harvest date to promote one shake harvest. Growers who had severe late walnut

early spring. First leaf trees in our area are prone to nitrogen deficiency and need to be watched carefully for this problem. Symptoms include reddening of stem and leaf midrib and red and brown spots on the leaves.

husk fly damage may want to consider applying Ethrel to advance hull split and harvest. Excellent spray coverage is necessary for success with Ethrel and stressed trees should not be sprayed.

TRAINING FIRST LEAF TREES

Continue to allow the leader to grow tying it at the tip of the stake and half way down after it reaches above the top of the stake. Do not head this leader back because lateral buds will be forced to push forming weak branches that must be removed in the winter. The goal is to attain maximum leader growth by the end of the first leaf. This will develop a strong tree and give you more choices at heading time next spring. If you are really concerned about wind breakage, then consider only lightly tipping the leader after trees have grown at least 9 feet. This method should avoid lateral buds from pushing.

IRRIGATION

August and September are high water use months for walnuts. Do not allow trees to become water stressed, which can result in poor kernel development and little to no vegetative growth. If your trees have been water stressed this season, give me a call if you would like help in developing an irrigation schedule for your orchard next year.

NITROGEN

The last nitrogen applications of the season should be completed by late August or early September. It is particularly important to discourage vigorous growth in young trees as October approaches so they can start hardening off to better withstand autumn frosts.

HARVEST

Remember that most quality loss (kernel color) occurs during the first 9 hours after harvest. Loss of kernel color occurs rapidly at air temperatures

above 90°F on sun-exposed walnuts. Plan to pick up, hull, and dry nuts as rapidly as possible.

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