Nuts—Biology

Pacific Mite, *Tetranychus pacificus*, on Almond, *Prunus amygdalus*

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Monitoring the spring movement of pacific spider mite from the orchard floor and onto mature almond trees was continued at two locations in Kern county in 1992. This was the third year at the Bidart orchard which is clean cultivated, drip irrigated, and planted on a 1-1-1 configuration of nonpareil, carmel, and sonora varieties. The Weins orchard has been monitored for 2 years and has a barley, vetch cover crop, flood irrigated, and on a 1-1 configuration of nonpareil and carmel.

Soil samples collected from beneath almond trees were placed in paper cups and the cups placed on Trécé® tent traps to collect migrating mites. Peak movement occurred on Feb 3 and 11 at the Bidart orchard and Feb 14 at the Weins orchard.

Six replicated treatments of trunk banding and of scaffold banding were made, on Feb 3 at the Bidart orchard and Feb 5 at the Weins orchard. Ten leaves were selected from each of three heights (3 ft interior, 6 ft interior, and 8 ft periphery) at weekly intervals through August and counted for mites.

At the Bidart orchard the highest mite populations occurred on the non-banded trees at all heights. At the 3 ft and 6 ft height the trunk banded treatment had the lowest mite populations. At 8 ft, the scaffold banding resulted in the lowest number of mites. We were unable to separate the effects of banding and prey population on the western predator mite.

At the Weins orchard the highest mite populations occurred on the non-banded trees at all heights. The trunk banding appeared less effective at this orchard where only the 3 ft sampling showed lower mite populations. At the 6 ft and 8 ft height, the scaffold banding resulted in the lowest spider mite populations. The effect on the western predator mite was unclear due to the direct relationship between predator and prey populations.