SPIDER MITE CONTROL IN WALNUTS IN 1997
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Mite control treatments were applied to mature Payne and Eureka walnut trees at 100 gpa. The experiment consisted of four treatments with three replications:

1) Check: untreated
2) Agri-Mek @ 10 fl oz/acre (0.0125 LB ai/A) sprayed 7/24/97
   plus 1 gal Herbimax oil-surfactant per acre (Loveland Industries)
3) Agri-Mek @ 15 fl oz/acre (0.0188 LB ai/A) sprayed 7/24/97
   plus 1 gal Herbimax oil-surfactant per acre (Loveland Industries)
4) Omite 6E @ 2 pints/acre

The spider mite populations were moderate in this orchard, but adequate for comparisons between treatments. Counts of 2-spotted, European red, predator mites and mite eggs were made from July 24, 1997 through September 12, 1997. Walnut aphids were highly parasitized by the parasitic wasp, Trioxys pallidus, and parasitism was not affected by the treatments of Omite or Agri-Mek.

Two-spotted mites were at slightly higher levels than European red mites through the course of the experiment. The application of Agri-Mek at 10 oz/A or 15 oz/A or Omite 6E at 2 pints resulted in a very substantial reduction in the populations of both mites after one week. The mite populations remained near "0" throughout the 7 weeks of counts. The check remained at 2 to 4 mites per leaflet for three weeks, then dropped to insignificant levels for the remainder of the observation period. The Western orchard predator mite, Metaseiulus occidentalis increased following the treatments and the pest mite numbers in the checks dropped substantially by August 21st. Neither the Agri-Mek nor the Omite treatments seemed to adversely affect predator mite populations.

EUROPEAN RED PLUS 2-SPOTTED MITES

![Graph showing mite populations over time]