

# CONTROL OF SAN-JOSE SCALE, TERRAPIN SCALE, AND EUROPEAN RED MITE ON DORMANT FRUIT-TREES WITH SOYBEAN OIL

PLESS CD, DEYTON DE, SAMS CE

HORTSCIENCE

30 (1): 94-97 FEB 1995

**Document type:** Article   **Language:** English   [Cited References: 27](#)   [Times Cited: 5](#)

## **Abstract:**

Emulsions of degummed soybean (*Glycine max* L.) oil were compared to a petroleum oil emulsion for efficacy against winter populations of San Jose scale [*Quadraspidiotus perniciosus* (Comstock); Homoptera: Diaspididae] and European red mite [*Panonychus ulmi* (Xoch); Acari: Tetranychidae] on dormant apple (*Malus domestica* Borkh.) trees and terrapin scale [*Mesolecanium nigrofasciatum* (Pergande); Homoptera: Coccidae] on dormant peach [*Prunus persica* (L.) Batsch.] trees. In laboratory tests, more than 94% of San Jose scale was killed on stems dipped for 1 second in 5.0% or 7.5% soybean oil or 5.0% petroleum oil, Mortality of terrapin scale exceeded 93% on peach stems dipped for 1 second in 7.5 % soybean oil or 5.0 % petroleum oil. No European red mite eggs survived on apple stems dipped for 1 second in 2.5%, 5.0 %, or 7.5 % soybean oil, or 5.0 % petroleum oil, In field tests, >95 % of San Jose scale died on apple trees sprayed with one application of 2.5% petroleum oil or 5.0% soybean oil; two applications of these treatments or 2.5% soybean oil killed all San Jose scales. One or two applications of 2.5 % petroleum oil or 5.0 % soybean oil killed 85 % and 98 %, respectively, of the terrapin scales on peach trees, Soybean oil shows promise as a substitute for petroleum oil for winter control of three very destructive fruit tree pests.