

## San Jose Scale Management in Peaches—Bill Shane, Michigan State University Extension.

San Jose scale is an insect problem that can surprise peach growers and appears to be on the increase in Michigan. San Jose scales cause injury by feeding on twigs, branches, and fruit; they may also inject salivary toxins while feeding. Heavy populations on the bark can cause gumming and kill twigs, branches, and entire trees if left uncontrolled. A characteristic, red halo-like discoloration often forms around the insect on twigs and fruit.

San Jose scales overwinters as immature, immobile scales on bark. From late May to late June tiny 2-winged adult males emerge to mate with females



Peach limb with many overwintering San Jose scales.

still under its grey, circular shell. The mated female produce eggs which hatch to produce tiny yellow crawlers. Crawlers will move for a few hours, attach to bark, and form protective shells.

There are usually two generations per year in Michigan. Scale is often moved from orchard to orchard on birds and on equipment of pruning crews. Spread of scale within an orchard may also be due to splashing water and wind.

Because of the damage potential of this pest, annual oil sprays during the dormant or delayed dormant period may be recommended, especially where the insect was detected in recent years. Better control is achieved with oil plus an insecticide such as Esteem 35 WP or Lorsban 4 E during the dormant period. Dormant sprays are less harmful to beneficial insects than postbloom sprays.



Dead peach trees due to severe San Jose scale infestation in previous season

Insecticide options aimed at the crawler stage are somewhat limited because of the preharvest interval requirements for Imidan, Guthion, Warrior, and Diazinon. Provado has recently been labeled for San Jose scale and has a zero day preharvest interval. Sevin will control crawlers and has a 3 day preharvest label restriction however this material is relatively short-lived and can cause mite populations to flare. Good spray coverage, especially in tree tops, is essential for effective control.



Nectarines with San Jose scale spotting—credit: Rutgers University