





Technical Bulletin for: San Jose Scale

Quadraspidiotus perniciosus (Comstock) Hemiptera: Diaspididae • QUAPER

DISTRIBUTION	Found in most areas of the world.
HOSTS	Apples, peaches, pears, plums and Rubus.
DESCRIPTION	
ADULT MOTH	About the size of a pinhead; gray, circular, and slightly raised. It often has a ringed appearance from molting. Females can reach 1/12 inch in diameter. The soft body underneath is yellow with no wings or legs.
NYMPH	Black, less than 1/25 inch in diameter.
EGGS	Female San Jose scale do not produce eggs
LIFE HISTORY	Overwinters in nymph stage. Increased scale problems can be expected after mild winters. After developing through larval and pupal stages, the males mature and back out from their scales about 4 to 6 weeks after birth. Adult males fly for only a few days and are capable of mating immediately with the females, which remain under their scales. Each female produces several hundred live crawlers over a 6-week period. Timing of the different stages varies from year to year, depending on temperatures. Usually, crawlers of the first generation appear in early June and may continue to be produced until early August. The young crawlers can be carried to other trees by the wind, on the feet of birds, on the clothing of farm workers or on orchard equipment. Females of the first generation mature in late July, and second generation crawlers appear in August. Second generation crawlers continue to be produced until October or November.

MONITORING INFORMATION

LURE ACTIVE INGREDIENT, SUBSTRATE & FIELD LIFE	San Jose scale pheromone on a red rubber septum. Field life: four (4) weeks. 
TRAP TO USE	Scale Card 
MONITORING STRATEGY	Use a minimum of 3-4 traps, irrespective of orchard size. Place traps in orchards at the pink stage of apple fruit bud development. Position traps on the northern or eastern side of the tree at a height of 6 to 7 feet. Check traps frequently (every day or 2) until the first male scale is caught. Check with Cooperative Extension or Master Gardener for local information and recommendations.
CULTURAL & PHYSICAL CONTROLS	Good pruning practices can help reduce scale problems. Pruning out infested limbs and water sprouts can help reduce spring and summer scale populations as well as open up the canopy to allow better spray coverage in tree tops where scales are often concentrated.

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