

Management of San Jose scale on apple with soybean-oil dormant sprays

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Abstract:

The objective of this study was to examine efficacy of soybean oil dormant sprays to manage San Jose scale (*Quadraspidiotus perniciosus* Comstock) on apple (*Malus xdomestica* Borkh.). On 14 Feb, 1994 and again on 20 Feb. 1995, 'Bounty' apple trees were: 1) left unsprayed (control) or sprayed to runoff with: 2) 3% (v/v) or 3) 6% degummed soybean oil with 0.6% (v/v) Latron B-1956 sticker spreader, or 4) 3% 6E Volck Supreme Spray petroleum oil. Crawler emergence occurred 17 May-28 June, 7 July-30 Aug., and 7 Sept.-24 Oct. 1994, First-generation crawler emergence had started by 8 May in 1995, Both 3% petroleum oil and 6% soybean oil sprays reduced the numbers of first- and second-generation crawlers by 93% in 1994 and first-generation crawlers by 98% in 1995, The 3% soybean oil treatment reduced first- and second-generation crawlers by 60% in 1994 and first-generation crawlers by 83% in 1995, In 1995, apple fruit infestations by first-generation scales on the 3% soybean-, 6% soybean-, and 3% petroleum oil-treated trees did not differ significantly, but all fruit were significantly less infested than the controls.