

## Section VI: Pests of Wine Grapes & Small Fruits

### TWOSPOTTED SPIDER MITE CONTROL ON STRAWBERRY, 2014

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A pretreatment sample of 25 leaflets/plot was taken from 2 year-old 'Albion' strawberries grown under a high tunnel in Burlington, WA on 2 June 2014. Treatments of five acaricides were applied on 2 June with an R&D CO<sub>2</sub> backpack sprayer equipped with four D3 25 nozzles arranged two over the top of the row and two attached to drop tubes and angled upward at 45 deg to penetrate underside of foliage. Treatments were applied at 60 psi to deliver 100 gpa at 2 mph. Each treatment plot is 23 feet long by 28 inches wide. Plots were organized into a RCB design with 4 blocks of 5 treatments and an untreated check. Samples were processed with a mite-brushing machine onto a 13 cm diameter glass plate coated with a fine layer of liquid detergent. Estimated average number of motile life stages per leaflet was determined with a dissecting microscope.

This trial was conducted at pretreatment levels above 75 mites/leaflet. These extreme densities were 3-4 fold above the UC IPM strawberry economic threshold of 15-20 mites/mid-tier leaflets after berry set. By early June, canopy leaves were beginning to look dry, reddish and average densities/leaflet expressed high standard errors across all treatments. Fujimite and tank mix of Acramite + Savey provided economic suppression of motile TSSM at 7 days posttreatment (Table 1). Their control levels remained comparable along with the contact IRAC 20B MoA Kanemite at 14 days posttreatment.

Table 1. Evaluation of acaricides for control of twospotted spider mites, 2014

Treatments	Rate/acre	0 DAT	3 DAT	7 DAT	14 DAT
Acramite 50 WP + Savey DF	16 oz	27.5±20.0a	85.0±63.1a	26.3±11.4a	3.8±2.4b
	6 oz				
Oberon 2SC	16 fl oz	96.3±68.4a	198.8±106.6a	141.3±80.3a	147.5±88.6a
Kanemite 15SC	31 fl oz	127.5±72.2a	180.0±105.6a	45.0±26.3a	22.5±17.9b
Zeal	3 oz	115.0±105.2a	143.8±96.3a	156.3±95.7a	85.0±4.8ab
Fujimite 5EC	32 fl oz	7.5±1.4a	56.3±43.9a	3.8±2.4a	7.5±4.8b
UTC		151.3±146.3a	256.3±238.0a	110.0±100.0a	26.3±18.1b

Means within columns followed by the same letter are not significantly different (Fisher's Protected LSD, P<0.05), PRC ANOVA SAS.