

**WESTERN FLOWER THRIPS CONTROL ON STRAWBERRY, 2014**

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The trial consisted of 5 treatments and UTC replicated four times in a RCB design. Treatments were applied on 22 and 29 July with an R&D CO<sub>2</sub> backpack sprayer equipped with two TJ60-8002 nozzles arranged at 14" spacing and delivering 110 gpa at 60 psi. Ten randomly selected flowers per 23 ft x 28 inch wide plots were collected from a 2 year-old, day-neutral 'Albion' plants grown under a high tunnel in Burlington, WA at 1, 2, 6, 7 and 1 DAT following a second application. Each flower was placed in an 8 oz condiment cup with 70% ETOH and agitated to wash western flower thrips, *Frankliniella occidentalis* (Pergande) (WFT) free from within the flowers.

Based on the UC pest management guideline for WFT on strawberry, we provisionally set our economic threshold at 10 WFT/flower for 'Albion' growing under a high tunnel. The UTC indicated population increase had exceeded the economic threshold at 7 DAT. As did Danitol, Assail and Athena treatments (Table 1). Though not significantly different from the other treatments, Radiant and IGR Rimon averaged <10 WFT/flower. At 1 DAT and following the second application, Radiant WFTs populations were significantly less than the UTC. These results indicate day-neutral 'Albion' grown under high tunnels will experience rapid numerical increase of WFT in mid-summer in WA. California research indicates 'Albion' can tolerate >10 WFT/flower without causing significant damage or bronzing of the fruit near the calyx. Western flower thrips continues to be a non-economic pest on our regional summer bearing strawberries. Given the field performance of the spinosad Radiant, we expect the Entrust formulation of spinosad will provide acceptable control for organically grown strawberries.

Table 1. Average motile stages of WFT/10 flowers, 2014

Treatment	Rate/acre	23 July	24 July	28 July	29 July	30 July
Danitol EC	16 fl oz	54.8±0.7c	82.0±11.0a	91.8±18.9a	100.5±6.8ab	100.0±7.4ab
Assail 30SG	6.9 fl oz	89.8±2.8b	74.5±4.8a	92.5±7.8a	112.5±15.1ab	95.8±5.2b
Athena	17 fl oz	73.3±5.6bc	66.8±7.2a	78.3±2.3a	127.8±12.5a	108.5±6.7ab
Radiant SC	10 fl oz	126.5±16.1a	37.5±8.0b	63.5±8.9a	95.5±8.3b	50.0±105c
Rimon 0.82 EC	12 fl oz	78.8±4.8bc	67.3±7.1a	69.5±7.9a	92.8±5.7b	98.8±11.8ab
UTC		75.5±5.2bc	72.8±3.0a	80.5±5.9a	109.3±11.0ab	121.8±9.1a

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