

yellow spider
mite damage
looks like a
nutrient deficiency
on leaves.

Section VIII
Mites & Sap-sucking Insects

SPIDER MITE CONTROL ON RED RASPBERRY, 1996

L. K. Tanigoshi, J. D. Chamberlain & T. A. Murray

Washington State University

Vancouver Research & Extension Center

Vancouver, WA 98665-9752

360/576-6030

tanigosh@wsu.edu

Trial 1: Six acaricide treatments were evaluated for control of a summer population of yellow spider mite (YSM), *Eotetranychus carpini borealis*, in Mt. Vernon, WA on a 6 year-old 'Tulameen' planting. Treatments were replicated 4 times on 9 x 30 ft plots arranged in a RCB design. Sprays were applied on 15 August with a tractor-mounted (PTO) plot sprayer equipped with 6, 5 gallon stainless steel tanks individually valved to an over the row boom. The boom was equipped with 13 D4-45 TeeJet nozzles operating at 200 psi to deliver 150 gpa at 2.5 mph. Females counts were periodically made by randomly collecting 20 terminal leaflets from both sides of the row and brushing them onto glass plates with a mite-brushing machine.

Both rates of BAS 30011I resulted in excellent knockdown of an increasing YSM population in late August at 7 and 14 days after treatment (DAT). Though not significant the other acaricides provided intermediate YSM suppression to 14 DAT. YSM populations at this site were in decline at 27 DAT (Table 1).

Table 1.

Treatment/form.	Rate lb (AI)/ acre	Females/leaflet			
		3 DAT	7 DAT	14 DAT	27 DAT
Alert 2SC	0.10	10.3a	14.6ab	28.2ab	20.1a
Alert 2SC	0.20	6.0a	13.1ab	17.1abc	6.0ab
BAS 30011I 75WP	0.20	6.0a	8.1b	10.0bc	2.9ab
BAS 30011I 75WP	0.40	7.9a	7.1b	5.4c	0.3b
Savey 50WP	0.375	7.8a	11.6ab	14.8a	3.8ab
Vendex 50WP	1.00	11.6a	12.6ab	17.6abc	7.7ab
Check	n/a	19.6a	22.55a	35.4a	5.8ab

Means within columns followed by the same letter are not significantly different (P < 0.05; LSD).

Trial 2: Six acaricide treatments were evaluated for control of a summer population of yellow spider mite (YSM), *Eotetranychus carpini borealis*, in Mt. Vernon, WA on a 6 year-old 'Meeker' planting. Treatments were replicated 4 times on 9 x 30 ft plots

arranged in a RCB design. Sprays were applied on 15 August with a tractor-mounted (PTO) plot sprayer equipped with 6, 5 gallon stainless steel tanks individually valved to an over the row boom. The boom was equipped with 13 D4-45 TeeJet nozzles operating at 200 psi to deliver 150 gpa at 2.5 mph. Female counts were periodically made by randomly collecting 20 terminal leaflets from both sides of the row and brushing them onto glass plates with a mite-brushing machine.

The high rate of Alert, both rates of BAS 30011I and Vendex provided significant control of the mobile stages of YSM compared with the untreated check at 14 DAT. At 27 DAT the high rate of BAS 30011I and Savey provided significant late season control compared with the other treatments and the check. The Vendex standard provided intermediate seasonal control (Table 2.).

Table 2.

Treatment	Rate lb (AI)/ acre	Females/leaflet			
		3 DAT	7 DAT	14 DAT	27 DAT
Alert 2SC	0.10	4.2a	3.8a	6.3ab	5.4a
Alert 2SC	0.20	2.2a	2.1a	2.4b	3.3abc
BAS 30011I 75WP	0.20	3.3a	1.8a	1.7b	3.6abc
BAS 30011I 75WP	0.40	2.8a	1.4a	2.0b	1.7c
Savey 50WP	0.375	4.2a	3.4a	4.8ab	0.8c
Vendex 50WP	1.00	4.3a	3.8a	2.9b	2.0bc
Check	n/a	10.8a	4.1a	11.1a	5.2ab

Means within columns followed by the same letter are not significantly different (P < 0.05; LSD).