

Section VI.
Soil Arthropods

ROOT WEEVIL INSECTICIDE EFFICACY ON RED RASPBERRY, 1997

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Trial 1: Treatments were replicated five times in a 4 year-old 'Meeker' raspberry field in La Center, WA. Plots measuring 1 row wide and 30 ft long were arranged in a RCB design. Full coverage sprays were applied on 10 June with a tractor mounted 6 tank plot sprayer with an over the row boom. It was equipped with 14 D3-45 TeeJet nozzles per row at 200 psi and delivered 130 gal/acre at 2 mph. Basal sprays were applied with the same sprayer while using only the 3 lower nozzles on each side of the row. The nozzles were spaced 10 inches apart and the lower one was 12 inches above the soil line. Sampling began at 10 PM by placing a 3 ft wide by 10 ft long white cloth under each side of the row near the center of the plot. The top training wire was grasped tightly by hand and given 10 vigorous shakes. The weevils that were knocked off were counted with the aid of a flashlight and returned to the plots for later evaluation. Evaluations were made at 3, 6 and 14 DAT.

Both Brigade treatments and the Guthion and Asana combination significantly reduced BVW 3, 6 and 14 DAT. Alert significantly reduced BVW 6 and 14 DAT (Table 1).

Trial 2: Treatments were replicated five times in a 4 year-old 'Chilliwack' raspberry field in Vancouver, WA. Plots measuring 1 row wide and 30 ft long were arranged in a RCB design. Full coverage sprays were applied on 10 June with a tractor mounted 6 tank plot sprayer with an over the row boom. It was equipped with 14 D3-45 TeeJet nozzles per row at 200 psi and delivered 130 gal/acre at 2 mph. Basal sprays were applied with the same sprayer while using only the 3 lower nozzles on each side of the row. The nozzles were spaced 10 inches apart and the lower one was 12 inches above the soil line. Sampling began at 10 PM by placing a 3 ft wide by 10 ft long white cloth under each side of the row near the center of the plot. The top training wire was grasped tightly by hand and given 10 vigorous shakes. The weevils that were knocked off were counted with the aid of a flashlight and returned to the plots. Evaluations were made at 3, 6 and 14 DAT. Brigade and Alert were reapplied 27 June and sampled 4 and 14 DAT.

Alert and both Brigade treatments significantly reduced the number of BVW up to 14 DAT and 4 DAT of the second application (Table 2).

Table 1.

Treatment	Rate lb (AI)/ acre	Mean weevils/plot		
		3 DAT	6 DAT	14 DAT
Alert 2SC	0.20	6.4ab	4.2a	3.2a
Brigade 10WP, full	0.10	0.8a	1.0a	0.6a
Brigade 10WP, basal	0.10	1.0a	1.0a	0.6a
Cryolite 20%	30	8.0ab	9.3ab	13.0ab
GWN 1885 20%	30	5.3ab	7.3ab	14.3ab
Guthion 50WP + Asana 0.66EC	0.25	5.2a	3.8a	2.6a
Untreated check	n/a	14.2b	16.6b	7.2b

Means within a column followed by the same letter are not significantly different (P < 0.005, LSD).

Table 2.

Treatment	Rate lb (AI)/ acre	Mean weevils/plot				
		3 DAT	6 DAT	14 DAT	4 DAT (2)	14 DAT (2)
Alert 2SC, basal	0.20	14.0a	12.4ab	17.6ab	12.2ab	3.2a
Brigade 10WP, full	0.10	8.6a	6.6a	7.6a	1.0a	2.8a
Brigade 10WP, basal	0.10	7.8a	5.6a	6.4a	3.6a	4.8a
Guthion 50WP, basal	0.25	15.8a	25.0bc	23.2bc	18.0bc	6.8a
Untreated check	n/a	21.0a	29.8c	38.2c	26.2c	5.0a

Means within a column followed by the same letter are not significantly different (P < 0.05, LSD).