

Section VI.
Soil Arthropods

ROOT WEEVIL CONTROL ON STRAWBERRY, 1995
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Trial 1: Treatments were evaluated for control of a heavy population of strawberry root weevil, *Otiorhynchus ovatus*, and some black vine weevil, *Otiorhynchus sulcatus*. Treatments were replicated 4 times in a 2 year-old 'Totem' strawberry field in Burlington, WA. Plots measuring 3 rows wide and 25 ft long were arranged in a RCB design. Sprays were applied on 18 July with a field sprayer at 100 psi delivering 100 gal/acre of finished spray from a hand-held boom with 3 hollow cone D4-45 TeeJet nozzles at 2 mph. Air temperature was 80° F and NW wind speed 3-5 mph. Five 1 ft² samples were randomly taken on 20 July from the middle row of each plot beginning at 10 PM with the aid of a flashlight (Table 1).

Brigade (bifenthrin), all rates of fipronyl (Regent) and the 0.32 lb ai/acre of AC 303,630 (Alert) provided good initial knockdown of postharvest adult weevils. A 11 DAT count revealed significant suppression of the treated late-season weevil population.

Trial 2: AC 303,630 and fipronyl were evaluated for control of a heavy population of strawberry root weevil, black vine weevil and rough strawberry root weevil, *Otiorhynchus rugosotriatus*, in a 3 year-old 'Totem' strawberry field in Aurora, OR. Plots were single rows, 20 ft long, replicated 6 times in a RCB design. Treatments were applied on 21 June with a field sprayer at 100 psi delivering 100 gal/acre of finished spray from a hand-held boom with 3 hollow cone D4-45 TeeJet nozzles at 2 mph. Air temperature was 65 ° F and wind calm. Entire rows were counted on 22 June beginning at 10 PM with the aid of a flashlight (Table 2).

All treated plots had only 0-7% as many weevils as the untreated check.

Table 1. Chemical control of adult root weevils on strawberry, Burlington, WA, 1995.

Treatment	Rate lb (AI)/acre	Mean weevils/plot*
AC 303,630 2SC	0.08	0.3a
AC 303,630 2SC	0.16	0.2a
AC 303,630 2SC	0.32	0.0a
Fipronyl 80WG	0.01	0.0a
Fipronyl 80WG	0.02	0.0a
Check	n/a	4.5b

*Means separation by Tukey's HSD test (P = 0.05).

Table 2. Chemical control of black vine weevil and strawberry root weevil, Aurora, OR, 1995.

Treatment	Rate lb (AI)/acre	Mean weevils/plot*
AC 303,630 2SC	0.08	10.5ab
AC 303,630 2SC	0.16	6.0bc
AC 303,630 2SC	0.32	2.3cd
Fipronyl 80WG	0.0025	1.5cd
Fipronyl 80WG	0.005	0.0d
Fipronyl 80WG	0.01	1.0cd
Fipronyl 80WG	0.02	0.0d
Brigade 10WP	0.10	3.0cd
Check	n/a	14.5a

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