

Section VII
Foliage & Seed Feeding Pests

WESTERN RASPBERRY FRUITWORM ON RED RASPBERRY, 2007

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Western raspberry fruitworm, *Byturus unicolor* Say. Two neonicotinoids, Provado™ 1.6F (imidacloprid) and experimental Assail™ 30SG (acetamiprid) were compared with our Diazinon standard for efficacy and labeling/registration to control the adult western raspberry fruitworm. Residual leaf dip bioassays were conducted using raspberry florets whose stems were inserted into water-filled vials, plugged with cotton. Florets were dipped in respective deionized water-insecticide solutions for approximately 4 seconds, air dried and placed in 5 inch diameter Petri dishes. Each treatment was replicated four times. Four adult western raspberry fruitworm adults collected in mid-June, were placed into each arena and maintained at room temperature. Adult mortality was assessed every 24 hours (Table 1). Within 24 hours, 100% mortality was observed for the Diazinon standard. No significant differences were observed between the neonicotinoids Assail 30SG and Provado 1.6F and that of the standard, Diazinon. Similar results were reported from earlier performed lab and field-tests using Actara™ (thiamethoxam), another neonicotinoid. We conclude, that multiple insecticides currently labeled for caneberries, effectively control western raspberry fruitworm.

Table 1. Adult western raspberry fruitworm bioassay, 2007.

Treatment	lb(AI)/acre	Percent Mortality		
		1DAT	2DAT	3DAT
Assail 30SG	0.09	66.6b	95.8a	95.8a
Assail 30SG	0.10	83.3ab	100a	
Provado 1.6F	0.05	87.5a	91.7a	95.8a
Diazinon 4E	1.00	100a		
Untreated check		7.5c	15.8b	24.2b

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