

Section VIII
Mites & Sap-Sucking Pests

RASPBERRY APHID CONTROL ON RED RASPBERRY, 2007

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Raspberry aphid, *Amphorophora agathonica* Hottes. A population of alate raspberry aphids was collected on 17 August (Table 1) and 7 September (Table 2) from a two year-old 'Meeker' planting at the WSU Mount Vernon NWREC. The terminal leaflet of maturing primocane leaves were individually inserted into water-filled vials plugged with cotton. They were then dipped for 4 seconds in a deionized water-aphicide solution. Ten alate adults were then placed on each air-dried leaflet, replicated ten times for each treatment (n = 100) and placed in 5 inch diameter Petri dishes. Compared with the untreated check, all treatments (Tables 1-2) were significantly different at the 5% level through three days posttreatment. Malathion continues to provide quick knockdown of raspberry aphid within 24 hours posttreatment. The high rate of Assail™ (acetamiprid) provided equivalent control of mature raspberry aphid two days posttreatment. Cessation of feeding was observed on the first day but death of the aphids occurred by 48 hours for the high and 72 hours or longer for the 0.047 lb(AI)/acre rate of Assail. Both subclasses of neonicotinoids were comparable to Mustang Max™ (zeta cypermethrin) at 0.05 lb(AI)/acre (Table 2).

Table 1. Raspberry aphid bioassay, Mt. Vernon, WA. 2007.

Treatment	lb(AI)/acre	Percent Mortality		
		1DAT	2DAT	3DAT
Assail 30SG	0.047	78b	88a	100a
Assail 30SG	0.075	94ab	100a	
Malathion 8EC	2.00	100a		
Untreated check		18c	32b	20b

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

Table 2. Raspberry aphid bioassay, Mt. Vernon, WA. 2007.

Treatment	lb(AI)/acre	Percent larval mortality			
		1 DAT	2DAT	3DAT	4DAT
Actara	0.047	83a	100a		
Assail 30SG	0.047	47bc	72b	81b	82ab
Assail 30SG	0.075	75ab	100a		
Malathion 8EC	2	100a			
Mustang Max	0.05	72ab	100a		
Untreated check		0	11d	39c	60bc

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