

Chemical Control/New Products

TRUE BUG CONTROL WITH PYRETHROIDS IN PEARS

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Methods and Materials

A trial was conducted on mature 'Bartlett' pear trees in a commercial orchard near Fairfield, CA. The trial consisted of six treatments. Each treatment was replicated four times in a RCB design. Each replicate consisted of an individual tree with buffer trees in each direction. Treatments were applied on 3 May with a handheld orchard sprayer operating at 250 psi and delivering 250 gpa of finished spray (2.78 gal/tree). Control was evaluated by caging 25 adult *Lygus* bugs (LB), *Lygus hesperus* Knight, on the foliage for 24 hours at 0, 7, 14, 21, 28 and 35 DAT.

Results and Discussion

Control of LB was excellent with all pyrethroid insecticides through 21 DAT. Control started to break down at 28 DAT for Brigade and at 35 DAT for Danitol and Asana. Control was excellent through the entire study for Decis and Baythroid. However, high control mortality was observed when maximum air temperatures exceeded 85°F.

Table 1. Mean percent mortality of caged *Lygus* bugs by various pyrethroid insecticides at Fairfield, CA – 2000

Treatment/ formulation	Rate lb (AI)/acre	Percent Mortality DAT					
		0	7	14	21	28	35
Asana XL	0.072	100.0 b	93.9 b	82.5 b	93.1 bc	86.6 bc	76.7 bc
Baythroid 2EC	0.044	100.0 b	98.0 bc	100.0 c	100.0 c	92.0 bc	94.1 c
Brigade 10WP	0.080	100.0 b	95.0 bc	88.4 b	85.3 b	69.6 b	72.2 b
Decis 0.2EC	0.033	100.0 b	100.0 c	95.0 bc	93.3 bc	97.0 c	94.7 c
Danitol 2.4EC	0.394	100.0 b	91.0 b	95.0 bc	82.8 b	90.9 bc	73.1 bc
Untreated check	----	36.2 a	31.6 a	17.7 a	29.1 a	24.4 a	20.3 a

Means followed by the same letter within a column are not significantly different (Fisher's protected LSD, $P \leq 0.05$). Data analyzed using an arcsine transformation.