

PEPPER (BELL): *Capsicum annuum* L., 'Merced'  
 European corn borer (ECB); *Ostrinia nubilalis* (Hübner)  
 Fall armyworm (FAW); *Spodoptera frugiperda* (Smith)  
 Corn earworm (CEW); *Helicoverpa zea* (Boddie)

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**CONTROL OF EUROPEAN CORN BORER ON RED BELL PEPPERS, 1991:** Peppers were transplanted on 17 May in 4-row plots (2 twin rows) on 4-inch raised beds, 20 feet long, with alleys between treatments, at the Lane Avenue Horticulture Farm in Columbus. Acephate (Orthene 75SP, 1.3 lb/acre) was applied on 3 schedules from 1 Jul to 12 Oct: the high intensity plots were sprayed every 7 d (15 times); the low intensity plots were sprayed every 14 d (8 times); the variable intensity plots were sprayed every 14 d if a blacklight trap was catching less than 5 ECB moths per night, or every 7 d if the trap was catching 5 or more moths per night; dates of the 11 variable sprays were 1 Jul, 15 Jul, 22 Jul, 29 Jul, 12 Aug, 20 Aug, 27 Aug, 7 Sep, 12 Sep, 18 Sep, and 4 Oct. Four replicates of the 3 acephate treatments and an untreated control treatment were arranged in a randomized complete block design. Acephate was applied in 50 gal water per acre with D6-25 hollow cone nozzles at 60 psi and a speed of 3.7 mph. Red pods were harvested from the inner 2 rows of each plot on 12 Aug, 27 Aug, 9 Sep, and 3 Oct, and both red and green pods were harvested on 21 Oct. Pods were weighed, cut open, and rated for presence of insects and damage. Data were subjected to analysis of variance.

There were no significant treatment effects on number of pods, yield, or percentage clean pods, on any harvest date ( $P = 0.05$ ). Drift of acephate from an adjacent experiment was a possible confounding factor. ECB was present at unusually high densities; it had 3 full generations, with peaks in the adult population occurring in late May, mid-July, and late August. Although the predominant pest was ECB, FAW was present throughout the season and accounted for 6% of the worms found; CEW was present in the last 3 harvests and accounted for 5% of the worms found.

Date	Treatment	Mean $\pm$ Standard Error		
		N (pods)	Yield (kg)	% Clean
12 Aug	High intensity	46 $\pm$ 8	3.9 $\pm$ 1.090 $\pm$ 3	
	Low intensity	35 $\pm$ 4	2.6 $\pm$ 0.591 $\pm$ 2	
	Variable intensity	30 $\pm$ 6	2.0 $\pm$ 0.592 $\pm$ 2	
	Untreated	43 $\pm$ 8	3.5 $\pm$ 0.986 $\pm$ 6	
27 Aug	High intensity	24 $\pm$ 13	2.6 $\pm$ 1.697 $\pm$ 2	
	Low intensity	18 $\pm$ 8	1.8 $\pm$ 0.999 $\pm$ 1	
	Variable intensity	12 $\pm$ 5	1.0 $\pm$ 0.496 $\pm$ 2	
	Untreated	22 $\pm$ 9	2.0 $\pm$ 0.998 $\pm$ 2	
9 Sep	High intensity	20 $\pm$ 5	1.1 $\pm$ 0.369 $\pm$ 9	
	Low intensity	15 $\pm$ 4	0.8 $\pm$ 0.261 $\pm$ 14	
	Variable intensity	15 $\pm$ 4	0.6 $\pm$ 0.258 $\pm$ 6	
	Untreated	18 $\pm$ 4	1.0 $\pm$ 0.467 $\pm$ 11	
3 Oct	High intensity	22 $\pm$ 6	1.4 $\pm$ 0.453 $\pm$ 6	
	Low intensity	26 $\pm$ 7	1.6 $\pm$ 0.463 $\pm$ 7	
	Variable intensity	27 $\pm$ 8	1.6 $\pm$ 0.553 $\pm$ 7	
	Untreated	22 $\pm$ 5	1.4 $\pm$ 0.357 $\pm$ 9	
21 Oct	High intensity	50 $\pm$ 2	3.6 $\pm$ 0.375 $\pm$ 3	
	Low intensity	47 $\pm$ 6	2.8 $\pm$ 0.469 $\pm$ 4	
	Variable intensity	55 $\pm$ 9	3.9 $\pm$ 0.769 $\pm$ 3	
	Untreated	58 $\pm$ 13	3.7 $\pm$ 0.667 $\pm$ 4	