

(E35)

CORN (SWEET): *Zea mays* L. 'Seneca Horizon'

Fall armyworm (FAW); *Spodoptera frugiperda* (J. E. Smith)
Southern corn stalk borer (SCSB); *Diatraea crambiboides* Grote

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EVALUATION OF WHORL STAGE SPRAYS TO CONTROL INSECTS IN SWEET CORN, 1998: Sweet corn was planted on 13 Jul at the Eastern Shore Agricultural Research and Extension Center, Painter, VA. Each plot consisted of two 45-ft-long rows that were flanked on each side by an untreated guard row and separated from other plots within rows by 3 ft of bare ground. The experiment had four treatments and an untreated check arranged in a RCBD replicated four times. Insecticides were applied with a propane-pressurized backpack sprayer equipped with a single, hollow cone nozzle/row boom calibrated to deliver 20 gpa at 40 psi. All treatments were applied after the FAW infestation was established on 3, 6, 11 and 14 Aug, directing the spray over the whorls. On 10 and 17 Aug, whorls were dissected from 15 randomly selected plants per plot and the number and species of larvae were recorded.

The FAW infestation was high throughout the duration of the study. Nearly 100% of the whorls examined on both sampling dates in the untreated plots were infested with FAW. On 10 Aug, there were fewer FAW larvae in treated plots than in untreated ones, but these differences were not statistically significant. On 17 Aug, there were significantly fewer larvae (FAW + SCSB) in all treated plots than in the untreated control. The lowest number of larvae were recorded in plots treated with Lannate LV; however, the number of larvae in these plots was not significantly lower than the number in plots treated with the high (0.065 lb[AI]/acre) rate of DPX-MPO62 30WG. There were significantly fewer larvae in plots treated with Lannate LV and the high (0.065 lb[AI]/acre) rate of DPX-MPO62 30WG compared with the number in plots treated with the low (0.025 lb[AI]/acre) rate of DPX-MPO62 30WG. The number of larvae in plots treated with the middle (0.045 lb[AI]/acre) rate of DPX-MPO62 30WG was intermediate between the numbers in plots treated with the low (0.025 lb[AI]/acre) and high (0.065 lb[AI]/acre) rates of DPX-MPO62 30WG. Overall, there were fewer SCSB than FAW in all plots and no SCSB were observed in plots treated with Lannate LV.

Treatment/ formulation ^a	Rate lb (AI)/acre	No. live worms/15 whorls			
		10 Aug		17 Aug	
		Total worms ^b	Total worms ^c	FAW	SCSB
DPX-MPO62 30WG	0.025	16.50a	13.25b	11.25b	2.00ab
DPX-MPO62 30WG	0.045	14.00a	6.50c	3.25c	3.25a
DPX-MPO62 30WG	0.065	14.00a	4.25cd	2.50c	1.75ab
Lannate LV	0.450	11.50a	1.50d	1.50c	0.00b
Untreated check		22.50a	24.75a	22.00a	2.75a
Pr > F		0.6373	0.0001	0.0001	0.0482
LSD		16.5910	4.8332	4.2310	2.4562

Means in a column followed by the same letter are not significantly different ($P > 0.05$; LSD).

^aLatron B-1056 added to each treatment at 8 fl oz/100 gal water.

^bFall armyworm (FAW) was the only species observed on this date, with the exception of 1 Southern corn stalk borer (SCSB).

^cFAW + SCSB