Section II
Foliage & Seed-Feeding & Mining Insects

LATE SEASON INSECT CONTROL IN CANOLA, 1993B

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A large block was seeded on 7 in centers at 7 lb/acre using a plot drill on 11 May at the University of Idaho Plant Science Farm in Moscow, ID. Individual 12 x 23 ft plots were later tilled-out of the block. Insecticide treatments were arranged in a randomized complete block design with four replications each. Treatments were applied on 28 July when about 10 % of the plants were still in bloom. Temperatures at the time of spray application were 80 ° F. Insecticides were applied using a CO_2-pressurized backpack sprayer equipped with 80° fan nozzles on a 6-ft boom that delivered 20 gal/acre at 20 psi. Pretreatment and posttreatment counts of DBM were made by dislodging larvae into a 5 gal plastic bucket with a beat of the hand at each end of the plot. The proportion of aphid-infested canola terminals was assessed by randomly selecting 50 terminals in each plot and recording the presence or absence of aphids. Plot yields were obtained by making one pass along the center of each plot with a small-plot combine (4.6 ft header). Seed was cleaned and weighed. All data were subjected to analysis of variance and protected LSD tests.

Significantly better ($P < 0.05$) control of aphids was provided by the high rate of Dimethoate 400 7 d after treatment, followed by the low rate of Dimethoate 400, Thiodan 3 EC, and Methyl Parathion 4 E. Aphid populations in the Sevin XLR and NTN-33893 treatments were not significantly different ($P > 0.05$) than the control. Only the Methyl Parathion 4 E, Thiodan 3 EC and high rate of Dimethoate 400 treatments were significantly lower ($P < 0.05$) than the control 21 d after treatment. No significant differences ($P > 0.05$) in DBM numbers were found among treatments 3, 7 d and 21 d after treatment. DBM numbers were lowest in the Methyl Parathion 4 E, Thiodan 3 EC and high rate of Dimethoate 400 plots 14 d after treatment. No significant differences ($P > 0.05$) in yields among the treatments were found, but yields were generally low across all treatments and did not exceed 700 lbs/acre. Pest pressure from both DBM and aphid populations was high. Treatments were applied late and represent rescue rather than preventative treatments.

Table 1. Efficacy of selected insecticides for diamondback moth larvae and aphid control in Canola, Moscow, ID, 1993B.

		% Aphid infested terminals[a]					DBM larvae/plot[b]					
	Rate	Pre-	Days After Treatment				Pre-	Days After Treatment				Yield
Treatment	lb (AI)/acre	treatment	3	7	14	21	treatment	3	7	14	21	lb/acre
Dimethoate 400	0.50	91.5 ab	36.5 d	45.5 d	41.0 d	43.0 d	37.0 a	15.5 a	4.0 a	4.8 de	2.0 a	556.1 a
Dimethoate 400	0.25	90.5 ab	48.5 cd	48.5 cd	59.5 bc	70.5 bc	41.8 a	23.0 a	13.0 a	10.0 cd	5.8 a	453.8 a
Thiodan 3EC	1.0	85.0 b	58.0 bc	60.5 bc	49.5 bc	53.0 cd	47.0 a	10.3 a	6.5 a	1.3 e	1.0 a	660.3 a
Methyl Parathion 4E	0.5	87.5 ab	46.5 cd	58.5 bc	56.0 bc	42.5 d	41.0 a	14.5 a	9.5 a	2.8 e	4.3 a	517.8 a
Sevin XLR	0.5	87.5 ab	74.0 a	76.5 a	77.0 a	90.5 a	54.5 a	14.5 a	12.5 a	18.5 ab	5.5 a	501.6 a
NTN-33893 (foliar)	0.022	90.5 ab	71.0 ab	76.0 ab	69.5 ab	80.5 ab	31.3 a	17.8 a	14.3 a	21.0 a	6.8 a	487.1 a
Check	---	92.0 a	81.0 a	77.5 a	78.5 a	88.0 ab	37.8 a	29.3 a	17.3 a	12.8 bc	5.5 a	415.1 a

Means in a column followed by the same letter are not significantly different at the 5% level (protected LSD)
[a]Based on 50 terminals/plot
[b]Two bucket samples/plot