

Section VII.
Forage & Seed Insects

EARLY SEASON FLEA BEETLE CONTROL IN SPRING CANOLA

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Plots were seeded 19 May, 1997 at the USDA-ARS Western Regional Plant Materials Introduction Center at Central Ferry, WA in 6 x 20 feet replicates with 7 inch rows at 6 lbs seed/acre. Treatments were replicated 4 times in a RCBD, and the trial was located next to a crested wheat grass field. Treatments of CR-10 at 2.5 lbs product acre applied as granules and 4 rates of Gaucho 75 ST were applied as a seed treatment. "Zeneca Hyola 308" was the variety seeded. Four topical insecticides(Penncap MS 2 FM, TD2351-02 4 FM, TD2344-02 0.8 EC, and methyl Parathion 8 E) were applied using a CO2 back pack sprayer. An untreated check was established. A mean of 20 flea beetles (*Phyllotreta cruciferae* (Goeze)) per 6.6 feet of row were was present at 3-days after emergence (DAE). The plants were in the very early cotyledon stage of growth. FB damage was rated on a scale of 0 to 6, with 0 = no damage and 6 = total destruction of apical meristem on PrCT(3-DAE), 7-DAT(10-DAE), 12-DAT(15-DAE), 15-DAT(18-DAE), and 20-DAT(23-DAE). Comparison of data in the table shows that all treatments except methyl Parathion provided some initial degree of FB control through 7-DAT(10-DAE). By 20-DAT(23-DAE) only TD2344-02 0.8 EC, Gaucho 75 ST at 16.0 and 13.3 oz product cwt, and TD2351-02 4 FM provided significantly different control from the untreated check. At 20-DAT the plants were at the 6-leaf rosette stage. FB population density remained constant with equivalent pressure throughout the experiment.

Flea beetle damage to seedling canola

Treatment/formulation	Rate/Acre	PtCt(3-DAE)	7-DAT(10-DAE)	12-DAT(15-DAE)	15-DAT(18-DAE)	20 DAT(23DAE)
Gaicho 75 ST	16.0 oz cwt	0.25a	0.50a	1.75a	2.00a	2.00a
Gaicho 75 ST	13.3 oz cwt	0.22a	0.50a	1.75a	3.00a	3.00a
Gaicho 75 ST	10.7 oz cwt	0.23a	0.50a	2.25ab	3.50b	4.75c
Gaicho 75 ST	8.0 oz cwt	1.00b	1.00b	3.50bc	3.50b	4.88c
CR-10	0.25 lb ai	0.50ab	2.00bc	4.00c	3.72b	4.00bc
Pennacp MS 2 FM	0.50 lb ai	2.00c	1.50b	4.00c	3.81b	4.49c
TD2351-02 4 FM	0.50 lb ai	2.00c	1.00b	3.25bc	3.00ab	3.68b
TD2344-02 0.8 EC	0.035 lb ai	2.38c	0.50a	2.00a	2.00a	2.00a
Methyl Parathion 8 E	0.50 lb ai	2.25c	2.00bc	3.00bc	3.55b	4.63c
Check	-----	2.00c	3.50c	4.50c	4.50c	5.00c

Means followed by same letter are not significantly different. LSD = 0.05; ANOVA.