

Section II
Foliage & Seed-Feeding & Mining Insects

CONTROL OF COLORADO POTATO BEETLE WITH INSECTICIDES

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Plots were established in a field of Russet Burbank potatoes planted near Moxee, WA. Standard planting, fertility and weed control practices were followed. Plant spacing was 6 inches with 34 inches between rows. Plot size was 4 rows x 20 feet and arranged in a randomized complete block design with 4 replications. The first insecticide treatments were applied 10 July. On 19 July all plots except the Vydate and Asana plots received a second application. On 26 July all the plots except the Kryocide, Vydate and Asana plots received a third application. Insecticides were applied with a R&D CO2 pressurized sprayer at a rate of 26 gallons per acre using a hand-held boom with 4 (LF3) nozzles. Bond (5 mls/gallon) was used with the applications of Trident II and ABG-6263.

Evaluations were made 13, 17, 25, 31 July by recording the number of egg masses, small live larvae, large live larvae and adult beetles on 10 plants in the center 2 rows in each plot. Defoliation estimates from Colorado potato beetle (CPB) feeding were done 17, 25 and 31 July.

No phytotoxicity was seen with any of the treatments. All treatments resulted in significantly fewer CPB large larvae (ll) on 13 July. All treatments resulted in fewer CPB larvae on 25 and 31 July:

Mean No. CPB larvae/10 plants

<u>Treatment</u>	<u>Rate/a</u>	<u>7/13</u>		<u>7/17</u>		<u>7/25</u>		<u>7/31</u>	
		<u>sl</u>	<u>ll</u>	<u>sl</u>	<u>ll</u>	<u>sl</u>	<u>ll</u>	<u>sl</u>	<u>ll</u>
Trident II	1.5 qt	2a	7a	20a	8a	19b	23b	4b	15b
Trident II	2.0 qt	4a	6b	13ab	8a	4b	12b	4b	7b
MYX 1806	2.0 qt	5a	8b	8ab	9a	4b	12b	8b	8ab
ABG 6263	2.0 lb	2a	8b	12ab	12a	6b	16b	5b	15b
Kryocide	1l lb	3a	11b	7ab	6a	0b	1b	2b	1b
Vydate	2.0 qt	0a	2b	1b	1a	1b	1b	1b	1b
Asana XL	4.8 oz	0a	5b	1b	1a	2b	5b	0b	1b
Check	----	3a	21a	9ab	16a	74a	70a	32a	47a

sl = small larvae; ll = large larvae

Means followed by the same letter are not significantly different (P=0.05 level; DMRT).

There was significantly less feeding CPB feeding damage in the plots treated with insecticides than in the untreated check:

Mean % Defoliation

Treatment	rate/a	7/17	7/25	7/31
Trident II	1.5 qt	4a	4a	1a
Trident II	2.0 qt	6a	3a	3a
MYX 1806	2.0 qt	4a	2a	2a
ABG 6263	2.0 lb	3a	3a	3a
Kryocide	1l lb	4a	0a	1a
Vydate	2.0 qt	1a	0a	1a
Asana XL	4.8 oz	1a	3a	3a
Check	----	25b	52b	61b

Means followed by the same letter are not significantly different (P=0.05 Level; DMRT).

Treatment	Rate/a	7/17	7/25	7/31
Trident II	1.5 qt	2a	20a	2a
Trident II	2.0 qt	4a	13ab	4a
MYX 1806	2.0 qt	5a	8a	5a
ABG 6263	2.0 lb	2a	12a	2a
Kryocide	1l lb	3a	7a	3a
Vydate	2.0 qt	0a	1a	0a
Asana XL	4.8 oz	0a	1a	0a
Check	----	21a	9ab	21a

Means followed by the same letter are not significantly different (P=0.05 Level; DMRT).

There was significantly less feeding damage in the plots treated with insecticides than in the untreated check.