

Section VII.  
Foliage & Seed Feeding Pests

**2002 CANOLA FLEA BEETLE TRIAL**

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A RCBD trial of 4 replicates of 9 seed treatments plus an UTC, using Canola hybrid variety Hyola 401, was seeded May 24, 2002, on the Central Ferry Research Farm, Washington State University & Agricultural Research Service USDA Cooperating with Agricultural Research Stations of the 13 Western States. Canola seedlings emerged 6-03-2002 and 1-DAE, 10-DAE, and 18-DAE data of estimates of Cabbage flea beetle damage on a scale of 0 to 6 (0 = no damage; 6 = total loss of apical meristem) were made on a square meter basis. Flea beetle adults (*Phyllotreta cruciferae*) were present at 100+ per square meter at emergence. The data show low damage to the UTC, Gaucho 75 ST, and Gaucho CS treatments at 1-DAE. At 10-DAE, L0263-A1/G7030-02 at 10.24 fl oz/21.5 fl oz was SD and superior to all other treatments. This is true through 18-DAE. Yield data were collected at harvest and reflect the extreme heat during late bloom, which blasted flowers. The yield data are comparable to commercial Canola fields in the region. Data are shown in the table below (as SD NOVA: LSD t Test 0.05 if followed by same letter):

Table 1.

<b>Treatment</b>	<b>Rate cwt</b>	<b>1-DAE</b>	<b>10-DAE</b>	<b>18-DAE</b>
UTC	-----	2.25c	4.13e	5.50e
Gaucho CS/Allegiance	21.5 fl oz/o.375 fl oz	1.25b	3.38d	4.88d
Gaucho 75 ST/Gaucho CS/A	2000 ppm aia/21.5 fl oz	1.00b	4.50e	5.00e
G7030-02	21.5 fl oz	0.00a	2.75c	4.00b
G7047-01	19.2 fl oz	0.00a	2.50b	4.63d
G7057	19.2 fl oz	0.00a	3.13c	4.50c
G7061	19.2 fl oz	0.00a	2.75c	4.50c
Helix	2000 ppm aia	0.00a	4.25e	3.88b
L2063-A1/G7030-02	5.12 fl oz/21.5 fl oz	0.00a	3.13c	4.00b
L2063-A1/G7030-02	10.24 fl oz/21.5 fl oz	0.00a	1.13a	1.50a*

**Conclusions:** 7 of the seed treatments were active in preventing apical meristem data at 1-DAE. By 10-DAE, and 18-DAE, only the L2063-A1 plus G7030-02\* (treatment 6 on the protocol) was effective in providing flea beetle control compared to the other treatments. Regrowth of meristem and recovery of plant growth occurred in other treatments, but resulted in a set back in growth for those treatments, and subsequent regrowth of branches with flower racemes at harvest. The Treatment 6 plant vigor was clearly visible to harvest, although Treatment 8 (G7057) was shown superior by SD, although the STD for this treatment was high compared to that for Treatment 6. Harvest yield data converted to pounds per acre are shown in the table below:

Treatment	Rate cwt	Canola lbs/acre
UTC	-----	221.5d
Gaucho CS/Allegiance	21.5 fl oz/.375 fl oz	222.0d
Helix	2000 ppm aia	300.0e
G7030-01	21.5 fl oz	308.8e
G7047-01	19.2 fl oz	308.8e
G7061	19.2 fl oz	343.3d
L2063-A1/G7030-02	5.12 fl oz/21.5 fl oz	414.8c
Gaucho 75 ST/Gaucho CS/A	2000 ppm aia/21.5 fl oz/.375 fl oz	415.3c
L2063-A1/G7030-02	10.24 fl oz/21.5 fl oz	458.8b
G7057	19.2 fl oz	501.3a

Numbers followed by same letter are NSD. ANOVA;LSD t Test 0.05.