

## **Section VII Foliage & Seed Feeding Pests.**

### **A Comparison of Chemical Control Methods for Seedcorn Maggot *Delia platura* on Dry Bean Field Establishment.**

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Seedcorn maggot (SCM) can significantly reduce dry bean field stand establishment. Seed treatment with insecticide (ST), over the top (OTT) insecticide application and in furrow (IF) insecticide application were methods tested with several insecticides for control of SCM. A field trial was established on June 25, 2004 near Mattawa, Washington State USA. IF applications were all applied as the dry bean seeds were planted. OTT was applied 3 hrs after planting. Plot design was a randomized complete block of 4 replicates. OTT plot size was 6 ft. wide by 20 ft. ST and IF plots were 6 ft. by 80 ft. Seedling establishment was rated on July 6, 2004 to determine efficacy after germination had occurred.

Seedling stand establishment was significantly greater in the Cruiser and Poncho ST treatments compared to the untreated check. The Diazinon and Malathion OTT treatments did not protect seedlings better than the untreated check. The Warrior and Lorsban OTT treatments significantly increased stand counts compared to the untreated check. The Empower, Force, and Thimet IF treatments did not significantly increase stand counts compared to the untreated check. The Fortress IF treatment significantly increased stand counts compared to the untreated check. Stand counts were somewhat higher in the ST treatments compared to the IF or OTT treatments. The IF treatments appeared to be least effective at increasing bean stand establishment.

Trade name	Active ingredient	Rate	Mean seedling establishment
Untreated check			60.500a
Cruiser ST	thiamethoxam	1.28 fl oz/1000 lbs seed	74.500b
Diazinon OTT	diazinon	2.00 lb ai/A	62.750a
Empower IF	bifenthrin	0.006 lb/1000 row ft.	63.500a
Force IF	tefluthrin	5 oz./1000 row ft.	67.500a
Fortress IF	chlorethoxyfos	0.15 oz/1000 row ft	75.000b
Lorsban 15G IF	chlorpyrifos	0.5 lb/1000 row ft.	72.750b
Lorsban 4E OTT	chlorpyrifos	1.00 lb ai/A	69.000b
Malathion OTT	malathion	1.75 lb ai/A	65.500a
Poncho ST	clothianidin	2.00 oz./kg. seed	75.250b
Thimet IF	phorate	6 oz./1000 row ft.	62.500a
Warrior OTT	lambda-cyhalothrin	0.03 lb ai/A	71.000b