

Evaluation of Control Products for Black Cutworm in Turf

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INTRODUCTION

Feeding by black cutworm larvae can create pockmarks or suppressions on golf course putting greens that can reduce playability and overall aesthetics. As a result, control products are applied to putting green and tee surfaces to control respective black cutworm infestations.

MATERIALS AND METHODS

Design: RCB, 4 replications of 6 treatments

Pesticide Application Date:

Application Method: CO₂ Backpack sprayer equipped with TeeJet TJ60-11010VS nozzles.

Data Collection: Post-treatment, 1, 7, 14, and 21 days after treatment (DAT), were determine by soap-drenching BCW larvae using a soap disclosing solution.

RESULTS AND DISCUSSION

7 Days After Treatment

Chemical Name	Trade Name	Formulation	Rate	Mean # of BCW Larvae	% Control
Halofenozide	Mach 2	2 SC	1.0 lb ai/A	0.3	87.5
Halofenozide	Mach 2	2 SC	1.5 lb ai/A	0	100
Halofenozide	Mach 2	1.5 G	1.0 lb ai/A	0.3	87.5
Halofenozide	Mach 2	1.5 G	1.5 lb ai/A	0.8	75.0
Deltamethrin	DeltaGard	5 GC	0.10 lb ai/A	0	100

14 Days After Treatment

Chemical Name	Trade Name	Formulation	Rate	Mean # of BCW Larvae	% Control
Halofenozide	Mach 2	2 SC	1.0 lb ai/A	0	100
Halofenozide	Mach 2	2 SC	1.5 lb ai/A	0	100
Halofenozide	Mach 2	1.5 G	1.0 lb ai/A	1.0	70.0
Halofenozide	Mach 2	1.5 G	1.5 lb ai/A	0	100
Deltamethrin	DeltaGard	5 GC	0.10 lb ai/A	0	100

21 Days After Treatment

Chemical Name	Trade Name	Formulation	Rate	Mean # of BCW Larvae	% Control
Halofenozide	Mach 2	2 SC	1.0 lb ai/A	0	100
Halofenozide	Mach 2	2 SC	1.5 lb ai/A	0	100
Halofenozide	Mach 2	1.5 G	1.0 lb ai/A	0	100
Halofenozide	Mach 2	1.5 G	1.5 lb ai/A	0.3	87.5
Deltamethrin	DeltaGard	5 GC	0.10 lb ai/A	0	100

28 Days After Treatment

Chemical Name	Trade Name	Formulation	Rate	Mean # of BCW Larvae	% Control
Halofenozide	Mach 2	2 SC	1.0 lb ai/A	0	100
Halofenozide	Mach 2	2 SC	1.5 lb ai/A	0.3	87.5
Halofenozide	Mach 2	1.5 G	1.0 lb ai/A	0	100
Halofenozide	Mach 2	1.5 G	1.5 lb ai/A	0	100
Deltamethrin	DeltaGard	5 GC	0.10 lb ai/A	0	100

Due to the relatively low black cutworm population, it is difficult to effectively interpret the results of this study. Mach 2 is an insect growth regulator (IGR), subsequently it is expected that DeltaGard's knockdown ability would be significantly greater. However, from a residual perspective, it is expected that both DeltaGard and Mach 2 should provide meaningful control up to 28 days after treatment.