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Wireworms Part 2: Insecticides evaluated in Iowa

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Wireworms Part 2: Insecticides evaluated in Iowa

Abstract

Wireworms are occasionally a concern to farmers planting corn. Stand loss occurs in a very small percentage of Iowa cornfields, but where the problem does exist, it may persist for several years. Prevention of stand loss caused by wireworms can only be accomplished with the use of an insecticide. In the March 20 ICM newsletter, [data from Missouri](#) were presented that measured the percentage of healthy plants in several insecticide treatments. In this article, Iowa data are presented but the numbers measure the percentage **stand increase** over the untreated check. The Missouri and Iowa data cannot be compared because each is using a different method of evaluation.

Keywords

Entomology

Disciplines

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INTEGRATED CROP MANAGEMENT

Wireworms Part 2: Insecticides evaluated in Iowa

Wireworms are occasionally a concern to farmers planting corn. Stand loss occurs in a very small percentage of Iowa cornfields, but where the problem does exist, it may persist for several years. Prevention of stand loss caused by wireworms can only be accomplished with the use of an insecticide. In the March 20 ICM newsletter, [data from Missouri](#) [1] were presented that measured the percentage of healthy plants in several insecticide treatments. In this article, Iowa data are presented but the numbers measure the percentage **stand increase** over the untreated check. The Missouri and Iowa data cannot be compared because each is using a different method of evaluation.



[2] **Wireworm and damage to a corn seed.**

Data from several Iowa experiments are shown in Table 1, below. Only those tests in which the wireworm population caused substantial injury (injury rating scale rated 2.0 or higher) to the untreated check plots are included. The wireworm injury scale is

1. seed or seedling undamaged;
2. seed or seedling damaged, but plant established;
3. seed or seedling damaged, plant showing some signs of stress; and
4. seed or seedling damaged, no plant or questionable establishment

Selecting the "best" product may be difficult because of the small number of times a product was evaluated or because of variability in performance over the years. A ranking of the products based upon their performance may be a convenient way of judging which products are most likely to provide the best seed and seedling protection.

Table 1. Comparison of efficacy of registered insecticides for control of wireworms in corn measured as percentage stand increase over the untreated check.

Insecticide	Formulation	Rate*	Placement	1998	1997	1996	1992	1986	1986	1985
				Linden	Lacona	Garner	Onslow	Decatur	Hedrick	Murray
Agrox D-L Plus	ST	3.6 oz mat/cwt	ST	--	--	-7	48	48	9	20
Agrox Premiere	ST	1.8 oz mat/cwt	ST	--	24	--	42	--	--	--
Aztec	2.1G	0.07	Furrow	26	20	6	--	--	--	--
Aztec	2.1G	0.14	Furrow	27	10	8	--	--	--	--
Counter	20CR	0.6	Furrow	26	8	7	--	--	--	--
Counter	20CR	1.2	Furrow	29	14	-2	12	46	28	7
Force	3G	0.15	Furrow	22	14	6	55	--	--	--
Force	3G	0.15	T-band	35	32	3	44	--	--	--
Fortress	5G	0.15	Furrow	23	20	-1	--	--	--	--
Germate Plus	ST	3.6 oz mat/cwt	ST	30	10	-3	--	--	--	--

Kernel Guard	ST	3.6 oz mat/cwt	ST	30	24	11	63	--	--	--
Lorsban	15G	1.2	Furrow	16	20	--	--	37	9	6
Regent**	4SC	0.12	Furrow-M	25	--	-3	--	--	--	--
Thimet	20G	1.2	T-band	23	22	--	55	34	14	9
CHECK Stand Count				19.25	19.67	24.63	15.50	16.75	19.75	16.50
CHECK Damage Rating***				2.36	2.46	2.06	2.31	2.80	2.02	2.64

* Granular insecticides listed as oz(AI)/1,000 row-ft.

** 1 GPA water carrier.

*** Rating scale as described in text.

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[1] <http://www.ipm.iastate.edu/ipm/icm/2000/3-20-2000/wwp1.html>

[2] <http://www.ipm.iastate.edu/ipm/icm//iww.html>

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