

11-9-1998

Corn rootworm insecticide consistency 7-year tests

James D. Oleson

Iowa State University, joleson@iastate.edu

Jon J. Tollefson

Iowa State University, tolly@iastate.edu

Follow this and additional works at: <http://lib.dr.iastate.edu/cropnews>

 Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), and the [Entomology Commons](#)

Recommended Citation

Oleson, James D. and Tollefson, Jon J., "Corn rootworm insecticide consistency 7-year tests" (1998). *Integrated Crop Management News*. 2258.

<http://lib.dr.iastate.edu/cropnews/2258>

The Iowa State University Digital Repository provides access to Integrated Crop Management News for historical purposes only. Users are hereby notified that the content may be inaccurate, out of date, incomplete and/or may not meet the needs and requirements of the user. Users should make their own assessment of the information and whether it is suitable for their intended purpose. For current information on integrated crop management from Iowa State University Extension and Outreach, please visit <https://crops.extension.iastate.edu/>.

Corn rootworm insecticide consistency 7-year tests

Abstract

Labeled rates of corn rootworm insecticides have been tested in conventional-till (chisel plowed and field cultivated) fields over the last 7 years. For the last 4 years, these same insecticides have been examined in no-till fields. In all data presented, insecticides went head-to-head in their ability to protect corn roots from corn rootworm larval feeding. Tests were conducted throughout the state in various soil types and under various moisture conditions.

Keywords

Entomology

Disciplines

Agricultural Science | Agriculture | Entomology

INTEGRATED CROP MANAGEMENT

Corn rootworm insecticide consistency 7-year tests

Labeled rates of corn rootworm insecticides have been tested in conventional-till (chisel plowed and field cultivated) fields over the last 7 years. For the last 4 years, these same insecticides have been examined in no-till fields. In all data presented, insecticides went head-to-head in their ability to protect corn roots from corn rootworm larval feeding. Tests were conducted throughout the state in various soil types and under various moisture conditions. Any test that did not challenge an insecticide's performance (no obvious root pruning in the untreated rows) was not included in the analyses. Lorsban has only recently been labeled for in-furrow placement and was not included in the early tests; thus, data for Lorsban in-furrow are not presented.



[1] **Corn rootworm larval injury.**

Evaluations

Corn root systems from insecticide-treated rows and untreated rows were evaluated for corn rootworm feeding damage by using the Iowa 1-6 root-rating scale with 1 indicating no visible damage or only a few minor feeding scars; 2 indicating some roots with feeding scars but none eaten off to within 1.5 inches of the plant; 3 indicating several roots eaten off to within 1.5 inches of the plant but never the equivalent of an entire node of roots destroyed; 4 indicating one node of roots destroyed or the equivalent; 5 indicating two nodes of roots destroyed or the equivalent; and 6 indicating three or more nodes of roots destroyed. Insecticide consistency ratings (percentage of time ratings were kept at 3 or below) are presented in Tables 1-3.

Table 1. Insecticide consistency in conventional-till and no-till (1992-1998).

Insecticide	Placement	Percentage consistency ^a [2]		
		Combined tillages	Conv.-Till	No-Till
Force 3G	T-band	95a	99a	86a
Force 3G	Furrow	95a	95a	97a

Aztec 2.1G	Furrow	94a	95a	93a
Counter 20CR	Furrow	93a	90a	100a
Counter 20CR	T-band	93a	92a	93a
Aztec 2.1G	T-band	92a	97a	76a
Fortress 5G	Furrow	92a	90a	96a
Lorsban 15G	T-band	91a	91a	90a
Thimet 20G	T-band	73b	69b	86a
Fortress 5G	T-band	70b	75b	55b
Untreated check	--	0c	0c	0c

Means within a column followed by the same letter are not significantly different ($P < 0.05$, Ryan's Q test).

^a [3] Timing Percentage

consistency Root

rating Force 3G T-band or F At-plant 97a 2.2a Counter 20CR T-band or F At-plant 94ab 2.2a Furadan 4F
Broadcast Post-emerge 85b 2.2a Untreated check ---- ---- 0c 4.4b

Data are from 16 tests (64 replications). Means within a column followed by the same letter are not significantly different ($P < 0.05$, Ryan's Q test).

^aCounter 20CR and Force 3G were applied T-band in 1993-1996, and Furrow in 1997-1998; Furadan 4F treatments were applied during the first 2 weeks of June and received no incorporation.

This article originally appeared on pages 187-188 of the IC-480(24) -- November 9, 1998 issue.

Source URL:

<http://www.ipm.iastate.edu/ipm/icm//ipm/icm/1998/11-9-1998/crwinsconsist.html>

Links:

[1] <http://www.ipm.iastate.edu/ipm/icm//icrwinj.html>

[2] <http://www.ipm.iastate.edu/ipm/icm//ipm/icm/%2523notet1>

[3] <http://www.ipm.iastate.edu/ipm/icm//ipm/icm/%2523notet3>

IOWA STATE UNIVERSITY
University Extension