Section IV
Cereal Crop Pests

WIREWORM MANAGEMENT IN SPRING WHEAT 2006B
BAYER INSECTICIDE TRIAL

David E. Bragg
WSU Dryland Extension Entomologist
Patti Carr WSU Extension
Kurt Tetrick USDA-ARS
P O Box 190 Pomeroy WA 99347-0190
509/843-3701
braggd@wsu.edu

Protocol

Treatments plus rates per cwt = 4 reps in RCBD of 7 rows x 20 feet.
Seeding date 4-11-2006 using Hegi Cone Seed Drill – Variety Wawawai SWSW.
Emergence 4-19-2006. Plant stand was counted on 10 DPE on 4-28-2006. Plant stand was also counted at harvest on July 21, 2006.

Abstract

Plant stand counts at 10 DPE show most of the treatments providing similar stand protection from wireworm feeding. A mean of 4 plants per ¼ M2 were present at this stand count date in the treatments in the AB group. Lindane, Cruiser at 0.19, and Gaucho at 0.128, in group C provided medium plant stand protection at a level that would likely not be noticed in a commercial setting. The fungicide treatments were SD from and lower than other comparisons, with the UTC more than 5 plants ¼ M2 lower than the best treatment. Pre-Harvest stand counts show slight variation from 10 DPE counts due to randomized sampling and field variation but are similar. More than 4 plants ¼ M2 occur between the AB treatments and the check. The group followed by C has moderate plant stand protection compared to AB. The fungicide only group D is SD the UTC alone in E. This being a rate study trial with combinations of Poncho and Gaucho, and Spinosad and Gaucho, plus higher and lower rates of available of products, one can conclude that a wide range of treatments and rates will provide good and very good wireworm protection through harvest in spring wheat allowing selection by rate/price.

Table 1. LSD All-Pairwise Comparisons Test for plant stand at 10 DPE

Treatment	Rate ai floz/cwt	Mean Plant Stand	
PONCHO 600 FS	0.510	18.250	A
GAUCHO 600 FS	0.256	17.500	B
PONCHO 600 FS	0.256	17.500	B
GAUCHO 600 FS + PONCHO 600 FS	0.128/0.128	17.250	B
CRUISER 5 FS	0.383	17.000	B
GAUCHO 600 FS	0.800	17.000	B
PONCHO 600 FS	0.128	17.000	B
SPINOSAD 480 + GAUCHO 600 FS	0.160/0.128	16.750	B
LINDANE	1.00	16.000	C
CRUISER 5 FS	0.190	15.500	C
GAUCHO 600 FS	0.128	15.500	C
DIVIDEN Ext.	2.00	14.500	D
RAXIL XT	0.160	13.500	D
UTC	-----	12.500	E

Alpha 0.01 Standard Error for Comparison 0.8256
Critical T Value 2.698 Critical Value for Comparison 2.2274

Table 2. LSD All-Pairwise Comparisons Test –plant stand at harvest

Treatment	Rate ai floz/cwt	Mean Plant Stand	
GAUCHO 600 FS	0.800	17.750	A
GAUCHO 600 FS	0.256	17.250	A
PONCHO 600 FS	0.510	17.250	A
GAUCHO 600 FS	0.128	16.750	B
PONCHO 600 FS	0.128	16.750	B
PONCHO 600 FS	0.256	16.750	B
SPINOSAD 480 + GAUCHO 600 FS	0.128/0.128	16.750	B
CRUISER 5 FS	0.190	16.500	B
GAUCHO 600 FS + PONCHO 600 FS	0.128/0.128	16.000	B
CRUISER 5 FS	0.383	15.750	B
DIVIDEND Ext	2.000	14.750	C
LINDANE	1.000	14.750	C
RAXIL XT	1.600	14.750	C
UTC	------	13.000	C

Alpha 0.01 Standard Error for Comparison 0.8814
Critical T Value 2.698 Critical Value for Comparison 2.3780