

Section I

Invasive & Emerging Pests

Wheat Stem Saw Fly in Bayer 2011 II Variety Express SWSW

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Raw data for WSSF per 9 square meters

0	0	0	0	1	0	0	0
1	0	1	0	0	1	1	1
0	1	5	0	0	1	1	1
0	2	0	1	2	0	1	1

One-Way AOV for: Wheat Stem Saw Fly

Source	DF	SS	MS	F	P
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Between	7	4.3551	0.62216	0.57	0.7746
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Within	24	26.3007	1.09586		
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Total	31	30.6558			
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Grand Mean 0.6925 CV 151.17

Homogeneity of Variances F P

Levene's Test	2.07	0.0875
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O'Brien's Test	1.32	0.2826
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Brown and Forsythe Test	1.12	0.3856
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Welch's Test for Mean Differences

Source	DF	F	P
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Between	7.0	0.53	0.7943
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Within	10.2		
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Component of variance for between groups -0.11843

Effective cell size 4.0

Observations per Mean 4

Standard Error of a Mean 0.5234

Std Error (Diff of 2 Means) 0.7402

LSD All-Pairwise Comparisons Test for Wheat Stem Saw Fly distribution Meter Square

Treatment	Mean infested fly heads just after anthesis
3	1.51 A
5	0.76 A
2	0.76 A
8	0.75 A
7	0.75 A
6	0.50 A
4	0.26 A
1	0.26 A

Alpha 0.01 Standard Error for Comparison 0.7402

Critical T Value 2.797 Critical Value for Comparison 2.0704

There are no significant pairwise differences among the means.

Conclusions: WSSF exhibits a Poisson distribution in the raw data and no pattern was shown compared to Nick in Bayer I. The actual numbers of infested stems is lower and Express matured for harvest nearly a month earlier than Nick which has very late in August. While wheat stem sawfly number were low it needs to be stated again that up to 80% loss of yield occurs in breakout years in the North Central States and in adjoining Canadian Provinces. Biological Control is used in these areas using *Bracon cephi* which Braconid seems to be host specific. There are no pesticides.