

University of Tennessee

Organic and Conventional Products (alone or in rotation) for Corn Earworm Control in Sweet Corn - Madison Co.

Location: West TN Research and Education Center (Jackson)

Variety: Incredible (planted 6-5-2017)

Plots: 4 Rows x 40 ft (RCBD, 4 Reps)

Application: Appl A 7-21-17; Appl B 7-24-17; Appl C 7-27-17; Appl D 7-31-17; High clearance sprayer (9.2 GPA, 40 PSI, 8001FF)

Investigators: Stewart, S. Steckel, Williams

Helicovex is a nuclear polyhedrosis virus (NPV); formulation minimum 7.5×10^{12} viral occlusion bodies per liter.

Helicovex and Blackhawk are considered organic products whereas Besiege is a conventional product.

Markt ears = Marketable ears = ears with less than 6 kernels damaged; Clean ears = ears with 0 kernels damaged

CEW = Corn earworm; FAW = Fall armyworm; # dam ears = # damaged ears; # dam ker = # damaged kernels;

Description				CEW	CEW	CEW	FAW	FAW	FAW	# dam ker
Rating Date				8/4/2017	8/4/2017	8/4/2017	8/4/2017	8/4/2017	8/4/2017	8/4/2017
Sample Size, Unit				25 Ears	25 Ears	25 Ears	25 Ears	25 Ears	25 Ears	25 Ears
Pest Stage Majority				Small	Large	Sm + Lg	Small	Large	Sm + Lg	Total
Days After First/Last Applic.				14 4	14 4	14 4	14 4	14 4	14 4	14 4
Treatment	Formulation	Rate	Appl							
1 Helicovex		2.5 fl oz/a	ABCD	12.3 a	11.0 abc	23.3 a	0.3 a	0.0 b	0.3 a	236.0 a-d
2 Helicovex		1.25 fl oz/a	ABCD	14.5 a	10.3 bc	24.8 a	0.3 a	1.0 a	1.3 a	272.0 ab
3 Helicovex		2.5 fl oz/a	AC	13.3 a	5.0 c	18.3 a	0.3 a	0.0 b	0.3 a	205.3 cde
Besiege	1.252 lb/gal	9 fl oz/a	BD							
4 Helicovex		2.5 fl oz/a	AC	19.0 a	10.3 bc	29.3 a	0.0 a	0.0 b	0.0 a	269.5 abc
Blackhawk	36 %	3 oz wt/a	BD							
5 Besiege	1.252 lb/gal	9 fl oz/a	AC	19.0 a	8.3 bc	27.3 a	0.5 a	0.0 b	0.5 a	146.5 e
Blackhawk	36 %	3 oz wt/a	BD							
6 Blackhawk	36 %	3 oz wt/a	ABCD	13.8 a	12.5 ab	26.3 a	0.5 a	0.0 b	0.5 a	210.3 b-e
7 Helicovex		2.5 fl oz/a	A	13.5 a	8.8 bc	22.3 a	0.0 a	0.0 b	0.0 a	189.8 de
Besiege	1.252 lb/gal	9 fl oz/a	BD							
Blackhawk	36 %	3 oz wt/a	C							
8 Untreated				12.8 a	17.0 a	29.8 a	0.8 a	0.0 b	0.8 a	280.3 a

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)

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Description				Avg dam ker	Markt ears	# clean ears	% clean ears
Rating Date				8/4/2017	8/4/2017	8/4/2017	8/4/2017
Sample Size, Unit				1 Ear	25 Ears	25 Ears	25 Ears
Pest Stage Majority				Total	Total	Total	
Days After First/Last Applic.				14 4	14 4	14 4	14 4
Treatment	Formulation	Rate	Appl				
1 Helicovex		2.5 fl oz/a	ABCD	9.4 a-d	7.3 bc	1.0 bc	4.0 bc
2 Helicovex		1.25 fl oz/a	ABCD	10.9 ab	6.0 bc	0.5 c	2.0 c
3 Helicovex		2.5 fl oz/a	AC	8.2 cde	9.8 b	2.0 abc	8.0 abc
Besiege	1.252 lb/gal	9 fl oz/a	BD				
4 Helicovex		2.5 fl oz/a	AC	10.8 abc	3.5 c	1.0 bc	4.0 bc
Blackhawk	36 %	3 oz wt/a	BD				
5 Besiege	1.252 lb/gal	9 fl oz/a	AC	5.9 e	14.8 a	4.0 a	16.0 a
Blackhawk	36 %	3 oz wt/a	BD				
6 Blackhawk	36 %	3 oz wt/a	ABCD	8.4 b-e	10.3 ab	1.5 bc	6.0 bc
7 Helicovex		2.5 fl oz/a	A	7.6 de	9.8 b	2.8 ab	11.0 ab
Besiege	1.252 lb/gal	9 fl oz/a	BD				
Blackhawk	36 %	3 oz wt/a	C				
8 Untreated				11.2 a	5.0 c	0.0 c	0.0 c

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)