

**Table 1. Comparison of Grub Insecticide Efficacy  
by Time of Application**

(using Japanese Beetle & Masked Chafer Data)

Insecticide	rate lb.ai./a.	ave % control (#tests)					
		May	June	July	to Aug 16	to Sept 10	
Carbaryl (=Sevin)	4.0	---	---	34.3 (2)	---	81.4 (1)	
	8.0	---	---	56.1 (2)	---	77.8 (2)	
Chlorantraniliprole (=Acelepryn)	0.1	92.8 (4)	93.3 (9)	91.6 (2)	---	---	
	0.15	97.4 (4)	94.1 (5)	88.8 (2)			
	0.2	94.8 (4)	99.8 (4)	98.2 (5)			
	0.25	99.0 (4)	99.2 (5)	96.2 (7)		94.2 (1)	
Clothianidin (=Arena)	0.25	99.9 (5)	90.0 (1)	98.8 (5)	---	83.4 (2)	
	0.3	93.0 (1)	99.6 (3)	99.0 (2)	---	97.0 (1)	
	0.4	100 (1)	---	98.2 (2)	---	84.9 (1)	
Halofenozide (=MACH2)	1.5	88.5 (8)	94.4 (23)	88.8 (21)	89.6 (19)	77.7 (27)	
	2.0	80.5 (4)	63.7 (9)	94.3 (13)	75.9 (6)	---	
Imidachloprid (=Merit)	0.25	95.5 (2)	86.0 (3)	96.5 (10)	---	---	
	0.3	80.7 (22)	93.3 (42)	95.2 (48)	93.8 (30)	93.2 (37)	
	0.4	81.0 (2)	94.0 (2)	96.8 (5)	82.0 (1)	---	
Lambda-cyhalothrin (=Triazicide)	0.04	---	---	17.0 (2)	15.8 (1)	---	
Permethrin	0.26	---	46.0 (2)	20.7 (3)	39.6 (2)	---	
Thiamethoxam (=Meridian)	0.2	59.9 (8)	96.7 (13)	95.6 (25)	92.9 (15)	85.2 (12)	
	0.26	83.5 (6)	99.3 (3)	99.8 (5)	94.6 (9)	89.7 (6)	
Trichlorfon (=Dylox/Proxol)	8.0	---	---	38.5 (1)	62.2 (5)	77.2 (25)	

From studies published in *Arthropod Management Tests* (1976-2008), using Japanese beetle and masked chafer efficacy data where checks had 4+ grubs per square foot and significant results. (Studies from Shetlar, 1999-2007, were used that were not published in AMT.)

Compiled by D. J. Shetlar, July, 2008.

**Table 2. Summary of Ohio Bluegrass Billbug Control Studies 1996-2010  
(applied as preventive and early curative treatments)**

D. J. Shetlar & J. Andon  
Department of Entomology  
The Ohio State University, OARDC & OSU Extension

<b>Insecticide</b>	<b>Rate lb.ai./A</b>	<b>% control</b>	<b># tests</b>	<b>range % control</b>
Bifenthrin (=Talstar)	0.1	66.5	15	37-100
	0.2	76.5	4	53-100
Chlorantraniliprole (=Acelepryn)	0.1	57.2	6	12-81
	0.2	82.4	5	74-94
Clothianidin (=Arena)	0.2	93.8	5	75-100
	0.3	98.2	5	95-100
Cyfluthrin (=Tempo)	0.14	67.0	2	
Deltamethrin (=Deltagard)	0.13	67.0	1	
Imidacloprid (=Merit)	0.3	80.5	17	67-95
	0.4	92.5	5	73-100
Lambda-Cyhalothrin (=Scimitar)	0.06	78.4	5	64-95
Thiamethoxam	0.2	87.2	6	81-100
(=Meridian)	0.26	100.0	1	

**Table 3. Summary of Ohio Hairy Chinch Bug Control Studies 1996-2010  
(applied as curative treatments)**

<b>Insecticide</b>	<b>Rate lb.ai./A</b>	<b>% control</b>	<b># tests</b>	<b>range % control</b>
Bifenthrin (=Talstar)	0.1	93.9	17	69-100
	0.2	91.5	10	55-100
Beta-cyfluthrin (=Tempo Ultra)	0.1	83.0	1	
Chlorantraniliprole (=Acelepryn)	0.2	57.5	2	56-57
	0.4	37.6	5	32-54
Clothianidin (=Arena)	0.2	92.2	5	83-100
	0.3	98.5	2	97-100
Cyfluthrin (=Tempo)	0.14	33.7	3	0-79
Imidacloprid (=Merit)	0.3	83.6	11	50-100
	0.4	77.8	6	61-100
Lambda-Cyhalothrin (=Scimitar)	0.05	88.8	6	76-95
Thiamethoxam	0.2	69.0	3	29-97
(=Meridian)	0.26	88.5	2	79-98