

CORN INSECTICIDE PERFORMANCE RATING, 2009

	Restricted Use (R)	Chinch Bug	Corn Earworm, Fall Armyworm	Corn Rootworm	Cutworm	European Corn Borer	Flea Beetle	Grasshopper	Seed Corn Maggot	Southwestern Corn Borer	Wireworm	Fire Ant
Ambush	X	7	7		8	6		7		5		
Asana XL/Adjourn	X	7	8		8	6		7		6		
Aztec	X	6		6	4				8			
Baythroid XL	X	7	8		8	6	6	8		6		
Belt			8			8				7		
Cobalt	X	7	8		8	7	6	8		7		
Counter	X	6		6	0		6		8		6	
Cruiser		3		6					8		5	5
Discipline/Fanfare/Brigade	X	7	8		8	7	6	8		7		
Force	X	3		6	4				5			
Furadan	X	7		6	7	3		8	8	2		
Hero	X	7	8			7	6	8		7		
Intrepid						7				7		
Lannate	X	3	7		5	1		4		1		
Lorsban/Chlorpyrifos	X	7	4	6	7	5		6	8	5		9
Malathion		1	2		0	1		5		1		
Methyl Parathion	X	4	4		3	1	7	6		1		
Mustang Max/Respect	X	7	8		8	6	6	8		6		
Poncho		3		6					8		5	5
Pounce	X	7	7		8	5		7		5		
Proaxis	X	7	8		8	6	6	8		6		
Regent	X	5	0	6		4			4	4		
Sevin		3	4		5	2	8	5		2		
Thimet	X			1	0				1			
Tracer		0	7		7	5		1		5		
Karate/Silencer	X	7	8		8	6	6	8		6		

Rating Scale: 0 = no control, 10 = excellent

The performance ratings in the chart are for comparison purposes only and are not necessarily a measure of percent control.

QUICK-VIEW THRESHOLD GUIDE

Insect	Threshold	Scouting Procedure
Whorl feeders	3-6 larvae per whorl	Examine 25-50 plants
Chinch bugs	when stand is threatened	
European corn borer	50% of plants showing damage	Examine 25-50 plants
Southwestern corn borer	25% of plants showing damage	Examine 25-50 plants

FIELD CORN INSECT CONTROL

Insect	Insecticide	Formulations/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	
Whorl Feeders (Corn Earworms or Fall Armyworms)	bifenthrin 2 EC (R) (Brigade, Discipline, Fanfare, Sniper)	2.1-6.4 oz	0.033-0.1	20-61	Apply insecticides when 3-6 larvae are found per whorl. Use insecticide as a coarse spray in 15 gallons or more spray per acre applied directly into whorls.	30	
	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21	
	carbaryl Sevin 80 S Sevin 50 W Sevin XLR	2 1/2 lb 4 lb 2 qt	2.0	2		48 Grain 14 Forage	
	cyfluthrin (R) Tombstone 2 EC	1.6-2.8 oz	0.025-0.044	45.7-80		21	
	esfenvalerate 0.66 EC (R) (Asana XL, Adjourn)	5.8-9.6 oz	0.03-0.05	13-22		21	
	flubendiamide Belt 4 SC	2.0-3.0 oz	0.063-0.094	42.7-64	Do not apply Belt more than 4 times per season.	28 Grain 1 Forage	
	gamma-cyhalothrin (R) Proaxis 0.5 EC	2.56-3.84 oz	0.01-0.015	33-50		21	
	lambda-cyhalothrin (R) Karate Z 2.08 CS Silencer 1 EC	1.28-1.92 oz 2.56-3.84 oz	0.02-0.03	66.7-100 33.3-50		21	
	methomyl (R) Lannate 2.4 LV	0.75-1.5 pt	0.22-0.45	5.3-11		21 Ears and Fodder 3 Forage	
	permethrin (R) Ambush 25 W Pounce 3.2 EC	6.4-12.8 oz 4-8 oz	0.1-0.2	10-20 16-32		prior to brown silk	
	spinosad Tracer 4 SC	2-3 oz	0.062-0.094	43-64	Do not apply more than 6 oz Tracer per acre/year.	28 Grain 7 Forage	
	zeta-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	3.2-4.0 oz	0.02-0.025	32-40		30	
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4-10.3 oz	0.04-0.1	12.4-32		30	
	Cutworms	beta-cyfluthrin (R) Baythroid XL 1 EC	0.8-1.6 oz	0.007-0.013	80-160		21
		bifenthrin 2 EC (R) (Brigade, Discipline, Fanfare, Sniper)	2.1-6.4 oz	0.033-0.1	20-61		30

FIELD CORN INSECT CONTROL

Insect	Insecticide	Formulations/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	
Cutworms (cont.)	chlorpyrifos (R) Lorsban 4 E	1-2 pt	0.5-1.0	4-8	Apply at planting in a 6- to 7-inch band. Direct sprays to base of plant. On 6-inch or smaller plants, band sprays over top.	35	
	Lorsban 15 G	8 oz/1,000 ft of row	1.0				
	chlorpyrifos + gamma-cyhalothrin (R) Cobalt	13-26 oz	0.26-0.52	4.9-9.8		21	
	cyfluthrin (R) Tombstone 2 EC	0.3-1.6 oz	0.013-0.025	80-160		21	
	esfenvalerate 0.66 EC (R) (Asana XL, Adjourn)	3.2-9.6 oz	0.016-0.05	13-40		Direct spray to lower portions of plants and to soil around base of plant.	21
	gamma-cyhalothrin (R) Proaxis 0.5 EC	1.92-3.20 oz	0.0075-0.0125			21	
	lambda-cyhalothrin (R) Karate Z 2.08 CS Silencer 1 EC	0.96-1.6 oz 1.92-3.2 oz	0.015-0.025	80-133.3 40-66.7		21	
	permethrin (R) Ambush 25 W Pounce 3.2 EC	6.4-12.8 oz 4-8 oz	0.1-0.2	10-20 16-32		prior to brown silk	
	zeta-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	1.28-3.2 oz	0.008-0.02	40-100		30	
	Corn Rootworm	carbofuran (R) Furadan 4 F	2.5 oz/1,000 ft of row	1.0		4	Apply at planting in 7-inch band or in furrow ahead of press wheel and incorporate into soil lightly. Do not enter Furadan treated fields within 14 days of application without protective clothing.
chlorpyrifos (R) Lorsban 15 G		8 oz/1,000 ft of row	1.0		Apply in 7-inch band or in furrow.	35	
clothianidin Poncho 250		0.25 mg ai/seed			Seed treatment		
cyfluthrin + phostebupirim (R) Aztec 2.1 G		6.7 oz/1,000 ft of row	0.12		Apply Aztec in 7-inch band or in furrow.	30	
fipronil (R) Regent 4 SC		0.24 oz/1,000 ft of row			Apply in furrow. Do not plant other rotational crops within 1 year of application. Suppression of first generation borers only.	90	
phorate (R) Thimet 20 G		6 oz/1,000 ft of row	1.0		Apply in 7-inch band behind the planter shoe directly in front of the press wheel.	30	
tefluthrin (R) Force 3 G		4-5 oz/1,000 ft of row	0.1-0.16		Apply in 7-inch band or in furrow.		
terbufos (R) Counter 15 G		8 oz/1,000 ft of row	1.0		Apply in furrow or in 7-inch band behind planter shoe in front of the press wheel.		
thiamethoxam Cruiser 5 FS		1.25 mg ai/kernal			Seed treatment		

FIELD CORN INSECT CONTROL

Insect	Insecticide	Formulations/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
Chinch Bugs	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21
	bifenthrin 2 EC (R) (Brigade, Discipline, Fanfare, Sniper)	2.1-6.4 fl oz	0.033-0.1	20-61	Treat when seedlings are dying to the point of reducing stand below an acceptable level and chinch bugs are found.	30
	carbaryl Sevin 80 S Sevin 50 WP	2 1/2 lb 4 lb	2		Direct sprays to base of plant. Use a minimum of 20 gallons final spray volume per acre.	48
	carbofuran (R) Furadan 4 F	1/2-1 pt	0.25-0.5	8-16		30
	chlorpyrifos 4 EC (R) (Lorsban, Chlorpyrifos)	1-2 pt	0.5-1.0	4-8		35
	chlorpyrifos + gamma-cyhalothrin (R) Cobalt	19-38 oz	0.38-0.76	3.4-6.7		21
	esfenvalerate 0.66 EC (R) (Asana XL, Adjourn)	5.8-9.6 oz	0.03-0.05	13-22		21
	gamma-cyhalothrin (R) Proaxis 0.5 EC	3.84 oz	0.015	33		21
	lambda-cyhalothrin (R) Karate Z 2.08 CS Silencer 1 EC	1.28-1.92 oz 2.56-3.84 oz	0.02-0.03	66.7-100 33-50		21
	terbufos (R) Counter 15 G	8 oz/1,000 row ft	Do not exceed 1.3 lb	33-50	Do not use more than 8.7 lb of Counter per acre. Counter only controls early season, light to moderate populations of chinch bugs.	
zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4-10.3 oz	0.04-0.1	12.4-32		30	
European Corn Borer	<i>Bt</i> corn varieties				Field corn expressing the Bt toxin has proven to be very effective.	
	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21
	bifenthrin 2 EC (R) (Brigade, Discipline, Fanfare, Sniper)	2.1-6.4 oz	0.033-0.1	20-61	Early planting will help avoid problems with this insect. Treat in late whorl stage when 50% of plants have feeding damage (shotholes).	30

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Insect	Insecticide	Formulations/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
European Corn Borer (cont.)	carbofuran (R) Furadan 4 F	1 qt	1.0	4	Do not make more than 2 applications of Furadan per season. Do not enter Furadan-treated fields within 14 days of application without protective clothing.	30
	chlorpyrifos + gamma-cyhalothrin (R) Cobalt	19-38 oz	0.38-0.76	3.4-6.7		21
	chlorpyrifos 4 EC (R) (Lorsban, Chlorpyrifos)	1-2 pt	0.03-0.0625			35
	esfenvalerate 0.66 EC (R) (Asana XL, Adjourn)	7.8-9.6 oz	0.04-0.05	13-16		21
	fipronil (R) Regent 4 SC	0.24 oz/1,000 ft of row			Apply in furrow at planting. Do not plant other rotational crops within 1 year of application. Suppression of first generation borers only.	90
	flubendiamide Belt 4 SC	2.0-3.0 oz	0.063-0.094	42.7-64	Do not apply Belt more than 4 times per season.	28 Grain 1 Forage
	gamma-cyhalothrin (R) Proaxis 0.5 EC	2.56-3.84 oz	0.01-0.015	33-50	Use of insecticides applied to foliage for management of second generation corn borers in early July has reduced stalk tunneling and lodging. However, yield increases have not been common with early-planted field corn.	21
	lambda-cyhalothrin (R) Karate Z 2.08CS Silencer 1 EC	1.28-1.92 oz 2.56-3.84 oz	0.02-0.03	66.7-100 33-50		21
	methoxyfenozide Intrepid 2 F	4.0-8.0 oz	0.06-0.12	16-32		21
	permethrin (R) Ambush 25 W Pounce 3.2 EC Pounce 1.5 G	6.4-12.8 oz 4-8 oz 6.7-13.3 lb	0.1-0.2	10-20 16-32	Apply Ambush and Pounce prior to ear formation. Granules are best for first generation larvae. Use foliar sprays on second generation larvae. Apply granules by aircraft or by ground equipment directing granules into whorls.	prior to brown silk
	spinosad Tracer 4 SC	1-3 oz	0.031-0.094	43-128	Do not apply more than 6 oz Tracer per acre/year.	28 (Grain) 7 (Forage)
	zeta-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	2.72-4.0 oz	0.017-0.025	32-47		30
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4-10.3 oz	0.04-0.1	12.4-32		30

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Insect	Insecticide	Formulations/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days from Last Application to Harvest
Flea Beetles	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21
	bifenthrin 2 EC (R) (Brigade, Discipline, Fanfare, Sniper)	2.1-6.4 oz	0.033-0.1	20-61		30
	carbaryl Sevin 80 S Sevin 50 WP Sevin XLR	1 1/4-2 1/2 lb 2-4 lb 1-2 qt	1.0-2.0	2-4	Spray young plants when beetles become abundant. Treat only if infestation is heavy.	48
	methyl parathion (R) PennCap-M	2-3 pt	0.5-0.75	2.7-4		12
	terbufos (R) Counter 15G	6-8 oz/1,000 ft of row	Do not exceed 1.3 lb		Do not use more than 8.7 lb of Counter per acre per season.	
	zeta-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	2.72-4.0 oz	0.017-0.025	32-47		30
	Grasshoppers	bifenthrin 2 EC (R) (Brigade, Discipline, Fanfare, Sniper)	2.1-6.4 ozz	0.033-0.1	20-61	
carbaryl Sevin 80 S Sevin 50 WP Sevin XLR		1 1/4 lb 2 lb 1 qt	1.0	4	Apply when numbers are causing damage.	48
chlorpyrifos + gamma-cyhalothrin (R) Cobalt		7-13 oz	0.14-0.26	9.8-18.3		21
chlorpyrifos 4 EC (R) (Lorsban, Chlorpyrifos)		1 pt	0.5	8		35
esfenvalerate 0.66 EC (R) (Asana XL, Adjourn)		5.8-9.6 oz	0.03-0.05	13-22		21
gamma-cyhalothrin (R) Proaxis 0.5 EC		2.56-3.84 oz	0.01-0.015	33-50		21
lambda-cyhalothrin (R) Karate Z 2.08CS Silencer 1 EC		1.28-1.92 oz 2.56-3.84 oz	0.02-0.03	66.7-100 33-50		21

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Insect	Insecticide	Formulations/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days from Last Application to Harvest
Grasshoppers (cont.)	methyl parathion (R)		0.5			12
	PennCap-M	2 pt		4		
	methyl parathion 4 EC	1 pt		8		
	zeta-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	2.72-4.0 oz	0.017-0.025	32-47		30
Seed Corn Maggot	carbofuran (R) Furadan 4 F	2.5 oz/1,000 ft of row	1.0	4	Maggot damage can be reduced by early spring plowing that reduces plant residue prior to planting. Apply at planting in furrow or in 7-inch band and incorporate into soil lightly.	30
	fipronil (R) Regent 4SC	0.17 oz/1,000 ft of row				90
	chlorpyrifos (R) Lorsban 15 G	8 oz/1,000 ft of row	1.0		Apply directly behind the planter shoe into the seed furrow.	35
	cyfluthrin + phostebupirim (R) Aztec 2.1G	6.7 oz/1,000 ft of row	0.12		Apply in 7-inch band or in furrow at planting.	
	terbufos (R) Counter 15 G	8 oz/1,000 ft of row	1.0		Apply in furrow in front of the press wheel.	—
	tefluthrin (R) Force 3 G	4-5 oz/1,000 ft of row	1.0-1.3		Apply in 7-inch band or in furrow at planting.	30
	diazinon (R) Agrox Premiere 15%	hopper box treatment	1.8 oz/50 lb seed		Mix thoroughly with seed. DO NOT MIX WITH BARE HANDS.	
	clothianidin Poncho 250	0.25 mg ai/kernal			Seed treatment	
	thiamethoxam Cruiser 5 FS	0.8 mg ai/kernal			Seed treatment	
	Southwestern Corn Borer	<i>Bt</i> corn varieties				Field corn expressing the Bt toxin has been very effective.
beta-cyfluthrin (R) Baythroid XL 1 EC		1.6-2.8 oz	0.013-0.022	45.7-80		21
bifenthrin 2 EC (R) (Brigade, Discipline, Fanfare, Sniper)		2.1-6.4 oz	0.033-0.1	20-61		30
carbaryl Sevin 80 S Sevin 50 W Sevin XLR		3 3/4 lb 6 lb 3 qt	3.0	1.33	Apply when 25% of plants show shothole feeding in whorl. Plant corn in early May to avoid damage. Apply high volume coarse spray so that spray will run into whorls.	48

FIELD CORN INSECT CONTROL

Insect	Insecticide	Formulations/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days from Last Application to Harvest
Southwestern Corn Borer	carbofuran (R) Furadan 4 F	1 qt	1.0	4	Do not enter Furadan-treated fields within 14 days of application without protective clothing.	30
	chlorpyrifos + gamma-cyhalothrin (R) Cobalt	19-38 oz	0.38-0.76	3.4-6.7		21
	esfenvalerate 0.66 EC (R) (Asana XL, Adjourn)	5.8-9.6 oz	0.03-0.05	13.3-22		21
	fipronil (R) Regent 4 SC	0.24 oz/1,000 ft of row			Apply in furrow at planting. Do not plant other rotational crops within 1 year of application. Suppression of first generation borers only.	90
	flubendiamide Belt 4 SC	2.0-3.0 oz	0.063-0.094	42.7-64	Do not apply Belt more than 4 times per season.	28 Grain 1 Forage
	gamma-cyhalothrin (R) Proaxis 0.5 EC	2.56-3.84 oz	0.01-0.015	33-50	Use of insecticides applied to foliage for management of second generation corn borers in early July has reduced stalk tunneling and lodging. However, yield increases have not been consistent with early-planted field corn.	21
	lambda-cyhalothrin (R) Karate Z 2.08 CS Silencer 1 EC	1.28-1.92 oz 2.56-3.84 oz	0.02-0.03	66.7-100 33-50		21
	methoxyfenozide Intrepid 2 F	4-8 oz	0.06-0.12	16-32		21
	permethrin (R) Ambush 25 W Pounce 3.2 EC Pounce 1.5 G	6.4-12.8 oz 4-8 oz 6.7-13.3 lb	0.1-0.2	10-20 16-32	Apply Ambush and Pounce prior to ear formation. Apply granules for first generation larvae by aircraft or by ground equipment directing granules into whorls. Sprays should be used for second generation larvae.	prior to brown silk
	zeta-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	2.7-4.0 oz	0.017-0.025	32-47		30
zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4-10.3 oz	0.04-0.1	12.4-32		30	
Wireworms	terbufos (R) Counter 15 G	8 oz/1,000 ft of row	1.0		Apply in a 7-inch band and incorporate lightly or place in seed furrow. Tend to be a problem on sandy soils.	
Fire Ants	chlorpyrifos Lorsban 15 G	8 oz/1,000 ft (T band application)				