

FIELD CORN INSECTICIDE PERFORMANCE RATING, 2012

	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		
Access/Senator/Concur				6					8		5	5
Aztec/Defcon	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			
Hero	X	7	8			7	6	8		7		
Intrepid						7				7		
Karate/Silencer	X	7	8		8	6	6	8		6		
Lannate	X	3	7		5	1		4		1		
Lorsban/Chlorpyrifos/Nufos	X	7	4	6	7	5		6	8	5		9
Malathion		1	2		0	1		5		1		
Methyl Parathion/Penncap-M	X	4	4		3	1	7	6		1		
Mustang Max/Respect	X	7	8		8	6	6	8		6		
Poncho	X	3		6					8		5	5
Pounce/Perm-UP	X	7	7		8	6	6	8		6		
Prevathon			9			9				9		
Proaxis/Declare	X	7	8		8	6	6	8		6		
Regent	X	5	0	6		4			4	4		
Sevin	X	3	4		5	2	8	5		2		
Thimet/Phorate	X			5	0				1			
Tracer		0	7		7	5		1		5		

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. Shaded boxes indicate products recommended for specific pests in this guide.

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
Stink bugs	10% of plants infested (>2 ft tall) 50% of plants during early ear formation	Examine 25-50 plants (stink bugs tend to infest field borders first)

FIELD CORN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
Whorl Feeders (Corn Earworm or Fall Armyworm)	β -cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21
	bifenthrin (R) Brigade 2 EC (See generics, p. 26)	2.1-6.4 oz	0.033-0.1	20-61	Apply insecticide 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
	carbaryl Sevin 80 S Sevin XLR	2 1/2 lb 2 qt	2.0	2		48 (grain) 14 (forage)
	chlorantraniliprole Prevathon 0.43 SC	14-20 oz	0.047-0.067	6.4-9.1	DO NOT apply at intervals closer than 7 days apart.	14
	cyfluthrin (R) Tombstone 2 EC	1.6-2.8 oz	0.025-0.044	45.7-80		21
	esfenvalerate (R) Asana XL 0.66 EC (See generics, p. 26)	5.8-9.6 oz	0.03-0.05	13-22		21
	flubendiamide (R) 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)
	γ -cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	2.56-3.84 oz 1.02-1.54 oz	0.01-0.015	33-50 83-125.5		21
	λ -cyhalothrin (R) Karate Z 2.08 CS (See generics, p. 26)	1.28-1.92 oz	0.02-0.03	66.7-100		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 2 EC (Pounce/Perm-UP) 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 of Tracer per year.	28 (grain) 1 (forage)
	ζ -cypermethrin 0.8 EC (R) (Mustang Max, Respect)	3.2-4.0 oz	0.02-0.025	32-40		30
	ζ -cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32		30
	Cutworm	β -cyfluthrin (R) Baythroid XL 1 EC	0.8-1.6 oz	0.007-0.013	80-160	
bifenthrin (R) Brigade 2 EC (See generics, p. 26)		2.1-6.4 oz	0.033-0.1	20-61		30

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Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
Cutworm	chlorpyrifos (R) Lorsban Adv. 3.755 E (See generics, p. 26)	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.	21
	Lorsban 15 G	8 oz/1,000 ft of row				
	chlorpyrifos + λ-cyhalothrin (R) Cobalt Advanced	11-26 oz	0.23-0.52	4.9-11.6		21
	cyfluthrin (R) Tombstone 2 EC	0.8-1.6 oz	0.013-0.025	80-160		21
	esfenvalerate (R) Asana XL 0.66 EC (See generics, p. 26)	3.2-9.6 oz	0.016-0.05	13-40	Direct spray to lower portion of plants and to soil around base of plant.	21
	γ-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	1.92-3.20 oz 0.77-1.28 oz	0.0075-0.0125	40-66.7 100-166		21
	λ-cyhalothrin (R) Karate Z 2.08 CS (See generics, p. 26)	0.96-1.6 oz	0.015-0.025	80-133		21
	permethrin (R) Ambush 2 EC (Pounce/Perm-UP) 3.2 EC	6.4-12.8 oz 4-8 oz	0.1-0.2	10-20 16-32		prior to brown silk
	ζ-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	1.28-3.2 oz	0.008-0.02	40-100		30
	Corn Rootworm	chlorpyrifos (R) Lorsban 15 G	8 oz/1,000 ft of row	1.0		Apply in 7-inch band or in furrow.
clothianidin Poncho 250		0.25-0.5 mg ai/seed			Seed treatment – commercially available.	
cyfluthrin + phostebupirim (R) Aztec or Defcon 2.1 G		6.7 oz/1,000 ft of row	0.12		Apply Aztec/Defcon 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.	90
imidacloprid Senator/Access 5 FS Concur		1.34 mg ai/kernel 1.5 oz/42 lb seed			Seed treatment	
phorate (R) Thimet/Phorate 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. DO NOT apply Thimet or Phorate directly in furrow.	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/kernel			Seed treatment.	

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Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
Chinch Bug	β-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21
	bifenthrin (R) Brigade 2 EC (See generics, p. 26)	2.1-6.4 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	2 1/2 lb	2		Direct spray to base of plant. Use a minimum of 20 gallons final spray volume per acre.	48
	chlorpyrifos (R) Lorsban Adv. 3.755 EC (See generics, p. 26)	1-2 pt	0.5-1.0	4-8		21
	chlorpyrifos + λ-cyhalothrin (R) Cobalt Advanced	16-38 oz	0.33-0.76	3.4-8.0		21
	esfenvalerate (R) Asana XL 0.66 EC (See generics, p. 26)	5.8-9.6 oz	0.03-0.05	13-22		21
	γ-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	3.84 oz 1.54 oz	0.015	33 83		21
	λ-cyhalothrin (R) Karate Z 2.08 CS (See generics, p. 26)	1.28-1.92 oz	0.02-0.03	66.7-100		21
	terbufos (R) Counter 15 G	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. Counter only controls early season, light to moderate populations of chinch bugs.	
ζ-cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32		30	
Flea Beetle	β-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21
	bifenthrin (R) Brigade 2 EC (See generics, p. 26)	2.1-6.4 oz	0.033-0.1	20-61		30
	carbaryl Sevin 80 S Sevin XLR	1 1/4-2 1/2 lb 1-2 qt	1.0-2.0	2-4	Spray young plants when beetles become abundant. Treat only if infestation is heavy.	48

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Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
Flea Beetle	methyl parathion (R) PennCap-M	2-3 pt	0.5-0.75	2.7-4.0		12
	terbufos (R) Counter 15 G	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.	
	ζ-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	2.72-4.0 oz	0.017-0.025	32-47		30
Grasshopper	bifenthrin (R) Brigade 2 EC (See generics, p. 26)	2.1-6.4 oz	0.033-0.1	20-61		30
	chlorpyrifos + λ-cyhalothrin (R) Cobalt Advanced	6-13 oz	0.12-0.26	9.8-21.3		21
	chlorpyrifos (R) Lorsban Adv. 3.755 EC (See generics, p. 26)	1 pt	0.5	8		21
	esfenvalerate (R) Asana XL 0.66 EC (See generics, p. 26)	5.8-9.6 oz	0.03-0.05	13-22		21
	γ-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	2.56-3.84 oz 1.02-1.54 oz	0.01-0.015	33-50 83-125.5		21
	λ-cyhalothrin (R) Karate Z 2.08 CS (See generics, p. 26)	1.28-1.92 oz	0.02-0.03	66.7-100		21
	methyl parathion (R) PennCap-M 2 EC Methyl Parathion 4 EC	2 pt 1 pt	0.5	4 8		12
	ζ-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	2.72-4.0 oz	0.017-0.025	32-47		30
Seed Corn Maggot	fipronil (R) Regent 4 SC	0.17 oz/1,000 ft of row			Maggot damage can be reduced by early spring plowing that reduces plant residue prior to planting.	90
	chlorpyrifos (R) Lorsban 15 G	8 oz/1,000 ft of row	1.0		Apply directly behind planter shoe into the seed furrow.	21
	cyfluthrin + phostebupirim (R) Aztec or Defcon 2.1 G	6.7 oz/1,000 ft of row	0.12		Apply in 7-inch band or in furrow at planting.	

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Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
Seed Corn Maggot (cont.)	imidacloprid Senator/Axcess 5 FS Concur	0.16-0.6 mg/ai kernel 1.5 oz/42 lb seed			Seed treatment.	
	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	0.1-0.16		Apply in 7-inch band or in furrow at planting.	30
	diazinon (R) Agrox Premiere 15%	1.8 oz/50 lb seed			Hopper box treatment. Mix thoroughly with seed. DO NOT MIX WITH BARE HANDS.	
	clothianidin Poncho 250	0.25-0.5 mg ai/kernel			Seed treatment – commercially available.	
	thiamethoxam Cruiser 5 FS	0.25-0.8 mg ai/kernel			Seed treatment.	
	European Corn Borer	<i>Bt</i> corn varieties				Field corn expressing the Bt toxin has proven to be very effective.
β-cyfluthrin (R) Baythroid XL 1 EC		1.6-2.8 oz	0.013-0.022	45.7-80		21
bifenthrin (R) Brigade 2 EC (See generics, p. 26)		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
chlorantraniliprole Prevathon 0.43 SC		14-20 oz	0.047-0.067	6.4-9.1	DO NOT apply at intervals closer than 7 days apart.	14
chlorpyrifos + λ-cyhalothrin (R) Cobalt Advanced		16-38 oz	0.33-0.76	3.4-8		21
chlorpyrifos (R) Lorsban Adv. 3.755 EC (See generics, p. 26)		1-2 pt	0.5-1.0	4-8		21
esfenvalerate (R) Asana XL 0.66 EC (See generics, p. 26)		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)
γ-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS		2.56-3.84 oz 1.02-1.84 oz	0.01-0.015	33-50 83-125.5	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
λ-cyhalothrin (R) Karate Z 2.08 CS (See generics, p. 26)		1.28-1.92 oz	0.02-0.03	66.7-100		21

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Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
European Corn Borer	methoxyfenozide Intrepid 2 F	4.0-8.0 oz	0.06-0.12	16-32		21
	permethrin (R) Ambush 2 EC (Pounce/Perm-UP) 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 of Tracer per acre/year.	28 (grain) 3 (forage)
	ζ-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	2.72-4.0 oz	0.017-0.025	32-47		30
	ζ-cypermethrin + bifenthrin (R) Hero 1.24 EC	4-10.3 oz	0.04-0.1	12.4-32		30
Southwestern Corn Borer	<i>Bt</i> corn varieties				Field corn expressing the Bt toxin has been very effective.	
	β-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21
	bifenthrin (R) Brigade 2 EC (See generics, p. 26)	2.1-6.4 oz	0.033-0.1	20-61		30
	carbaryl Sevin 80 S Sevin XLR	3 3/4 lb 3 qt	3.0	1.33	Apply when 25% of plants show shothole feeding in whorl. Plant corn early to avoid damage. Apply high-volume coarse spray so that spray will run into whorls.	48
	chlorantraniliprole Prevathon 0.43 SC	14-20 oz	0.047-0.067	6.4-9.1	DO NOT apply at intervals closer than 7 days apart.	14
	chlorpyrifos + λ-cyhalothrin (R) Cobalt Advanced	16-38 oz	0.33-0.76	3.4-8		21
	esfenvalerate (R) Asana XL 0.66 EC (See generics, p. 26)	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)
	γ-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	2.56-3.84 oz 1.02-1.54 oz	0.01-0.015	33-50 83-125.5	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

FIELD CORN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
Southwestern Corn Borer (cont.)	λ-cyhalothrin (R) Karate Z 2.08 CS (See generics, p. 26)	1.28-1.92 oz	0.02-0.03	66.7-100		21
	methoxyfenozide Intrepid 2 F	4-8 oz	0.06-0.012	16-32		21
	permethrin (R) Ambush 2 EC (Pounce/Perm-UP) 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.	prior to brown silk
	ζ-cypermethrin 0.8 EC (R) (Mustang Max, Respect)	2.7-4.0 oz	0.017-0.025	32-47	Apply granules for first generation larvae by aircraft or by ground equipment directing granules into whorls. Sprays should be used for second generation larvae.	30
	ζ-cypermethrin + bifenthrin (R) Hero 1.24 EC	4-10.3 oz	0.04-0.1	12.4-32		30
	Stink Bug	β-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80	
bifenthrin (R) Brigade 2 EC (See generics, p. 26)		2.1-6.4 oz	0.033-0.1	20-61	Treat when 10% of plants are infested and plants are less than 2 feet tall. During early ear formation, treat when 50% of plants are infested.	30
γ-cyhalothrin (R) Declare 1.25 CS Proaxis 0.5 CS		1.02-1.54 oz 2.56-3.84 oz	0.01-0.015	83-125.5 33-50		21
λ-cyhalothrin (R) Karate Z 2.08 CS (See generics, p. 26)		1.28-1.92 oz	0.02-0.03	66.7-100		21
ζ-cypermethrin 0.8 EC (R) (Mustang Max, Respect)		2.7-4.0 oz	0.017-0.025	32-47		30
methyl parathion (R) Methyl Parathion 4 EC Penncap-M 2 EC		1/2 pt 1 pt	0.25	16 8		12
Wireworm		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. Tends to be a problem on sandy soils.
	thiamethoxam Cruiser 5 FS	0.25-0.8 mg ai/kernel			Seed treatment.	
	clothianidin Poncho 250	0.25-0.5 mg ai/kernel			Seed treatment – commercially available.	
	imidacloprid (Axxess/Senator) 5 FS Concur	0.16-0.72 mg ai/kernel 1.8 oz/50 lb seed			Seed treatment.	
	Fire Ant	chlorpyrifos (R) Lorsban 15 G	8 oz/1,000 ft of row			Apply in a "T" band application for best results.