

Field Crops

Department of Entomology

CORN INSECT CONTROL RECOMMENDATIONS - 2011

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Read and Follow ALL Label Rate, Application, and Use Directions

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
Army-worm	carbaryl (Sevin & generics) ²	1 - 2 qt. 4F	48	F	At planting: risk for damage is greatest when no-tilling into grassy cover crops. Tank mixing with a burndown herbicide may be possible, check compatibility. Post emergence: Greater than 50% of the plants show fresh feeding and larvae are less than 1-1/4" long.
		1 1/4 - 2 1/2 lb. 80S	48	F	
		1 - 2 qt. XLR	48	F	
	chlorpyrifos (Lorsban & generics) ^{1,2}	1 - 2 pt. 4E	35	S-PEB, F	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	13 - 26 fl. oz. EC	21	S-PEB, F	
	cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 fl. oz. 1E	21	F	
	esfenvalerate (Asana XL & generics) ^{1,2}	5.8 - 9.6 fl. oz. EC	21	F	
	flubendiamide (Belt SC)	2 - 3 fl. oz. SC	28	F	
	permethrin (Pounce & generics) ^{1,2}	4 - 8 fl. oz. 3.2EC	30	S-PEB, F	
		6.4 - 9.6 fl. oz. 25WP	30	S-PEB, F	
spinosad (Tracer) ²	1 - 3 fl. oz. 4SC	28	F		
zeta-cypermethrin (Mustang Max & generics) ^{1,2}	3.2 - 4.0 fl. oz. 0.8EW	30	F		
zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F		
Black Cutworm	bifenthrin (Capture & generics) ^{1,2}	0.3 fl. oz./1000 ft. of row 2EC	30	S-B	At planting: risk for damage is greatest when planting into weedy conditions (especially winter annuals). Tank mixing with a burndown herbicide may be possible, check compatibility.
		2.1 - 6.4 fl. oz. 2EC	-	F	
	chlorethoxyphos & bifenthrin (Smart Choice) ¹	3.0 - 3.5 oz/1000 ft. of row 5G (SmartBox)	-	S-IF	
	chlorpyrifos (Lorsban & generics) ^{1,2}	1 - 2 pt. 4E	35	S-PEB, F	

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
Black Cutworm (con't)	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	13 - 26 fl. oz. EC	21	S-PEB, F	Post emergence: 3-5% of the plants show damage, 2 or more larvae are found per 100 plants, and larvae are 1/2 to 1-1/2" long.
	cyfluthrin (Baythroid XL) ^{1,2}	0.8 - 1.6 fl. oz. 1E	21	F	
	deltamethrin (generics) ^{1,2}	1.0 - 1.5 fl. oz. 1.5EC	21	F	
	esfenvalerate (Asana XL & generics) ^{1,2}	5.8 - 9.6 fl. oz. EC	21	S-PEB, F	
	flubendiamide (Belt SC)	2 - 3 fl. oz. SC	28	F	
	gamma-cyhalothrin (generics) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	21	F	
		0.26 fl. oz./1000 ft. of row	21	S-B	
	lambda-cyhalothrin (Warrior & generics) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	21	F	
	permethrin (Pounce & generics) ^{1,2}	4 - 8 fl. oz. 3.2EC	30	S-PEB, F	
		6.4 - 9.6 fl. oz. 25WP	30	S-PEB, F	
	tebupirimphos & cyfluthrin (Aztec) ¹	6.7 oz./1000ft. of row 2.1G	-	S-B	
		3.0 oz./1000 ft. of row 4.67G	-	S-B	
	tefluthrin (Force) ¹	4 - 5 oz./1000 ft. of row 3G	-	S-B	
0.46 - 0.57 fl. oz./1000 ft. of row CS		-	S-B, S-IF		
transgenic seed (AcreMax, Herculex, SmartStax, Viptera)	Commercially inserted in seed	-	TG		
zeta-cypermethrin (Mustang Max & generics) ^{1,2}	1.3 - 2.8 fl. oz. 0.8 EW	30	F		
zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	2.6 - 6.1 fl. oz. EC	30	F		
Brown Stink Bugs	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	19 - 38 fl. oz. EC	21	F	Seedling plants emerging from poorly closed seed slots and being damaged and/or killed.
	cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 fl. oz. 1E	21	F	
	deltamethrin (generics) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	F	
	gamma-cyhalothrin (generics) ^{1,2}	2.6 - 3.8 fl. oz. 0.5EC	21	F	
		1.0 - 1.5 fl. oz. EC	21	F	
lambda-cyhalothrin (Warrior & generics) ^{1,2}	2.6 - 3.8 fl. oz. 1CS	21	F		

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
Brown Stink Bugs (con't)	zeta-cypermethrin (Mustang Max & generics) ^{1,2}	2.7 - 4.0 fl. oz. 0.8 EW	30	F	
	zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F	
Corn Earworm	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 oz. 2EC	30	F	Control is economically justified only in seed, sweet, or popcorn. Treat if 10 or more moths for several consecutive nights are captured in an earworm pheromone trap just before or during silking.
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	19 - 38 fl. oz. EC	21	F	
	cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 fl. oz. 1E	21	F	
	deltamethrin (generics) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	F	
	esfenvalerate (Asana XL & generics) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	F	
	flubendiamide (Belt SC)	2 - 3 fl. oz. SC	28	F	
	gamma-cyhalothrin (generics) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC 0.8 - 1.3 fl. oz. EC	21 21	F F	
	lambda-cyhalothrin (Warrior & generics) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	21	F	
	spinosad (Tracer) ²	2 - 3 fl. oz. 4SC	28	F	
	transgenic seed (AcreMax, Genuity VT, Herculex, SmartStax, Viptera)	Commercially inserted in seed	-	TG	
	zeta-cypermethrin (Mustang Max & generics) ^{1,2}	1.8 - 4.0 fl. oz. 0.8EW	30	F	
	zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F	
Corn Flea Beetle	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 oz. 2EC	30	F	At planting: if using hybrids sensitive to Stewart's disease and winter temperatures were mild.
	carbaryl (Sevin & generics) ²	1 - 2 qt. 4F	48	F	
		1 1/4 - 2 1/2 lb. 80S	48	F	
		1 - 2 qt. XLR	48	F	
chlorpyrifos (Lorsban & generics) ^{1,2}	2 - 3 pt. 4E	35	F	Post emergence: 5 or more beetles per plant, 50% of seedlings are severely damaged, and plants are under additional stress(es).	
chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	13 - 26 fl. oz. EC	21	F		

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
Corn Flea Beetle (con't)	clothianidin (Poncho 1250)	Commercially applied to seed	-	ST	
	cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 fl. oz. 1E	21	F	
	deltamethrin (generics) ^{1,2}	1.0 - 1.5 fl. oz. 1.5EC	21	F	
	esfenvalerate (Asana XL & generics) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	F	
	gamma-cyhalothrin (generics) ^{1,2}	2.6 - 3.8 fl. oz. 0.5EC	21	F	
		1.0 - 1.5 fl. oz. EC	21	F	
	lambda-cyhalothrin (Warrior & generics) ^{1,2}	2.6 - 3.8 fl. oz. 1CS	21	F	
	permethrin (Pounce & generics) ^{1,2}	4 - 8 fl. oz. 3.2EC	30	S-PEB, F	
		6.4 - 9.6 fl. oz 25WP	30	S-PEB, F	
zeta-cypermethrin (Mustang Max & generics) ^{1,2}	2.7 - 4.0 fl. oz. 0.8EW	35	F		
zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	2.6 - 6.1 fl. oz. EC	30	F		
Corn Leaf Aphid	chlorpyrifos (Lorsban & generics) ^{1,2}	1 - 2 pt. 4E	35	F	Pre-tassel: 15 aphids/plant whorl 3 weeks before tasseling and plants under moisture stress. Post-tassel: 50% of tassels covered prior to 50% pollination and plants under moisture stress.
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	13 - 26 fl. oz. EC	21	F	
	dimethoate (Dimethoate) ²	2/3 - 1 pt. 4E	14	F	
	zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F	
Corn Root-worm Beetles	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 oz. 2EC	30	F	When tassels are shedding pollen and green silk is continuously clipped back to 1/2 inch or less before 50% pollination has taken place and beetles are present.
	carbaryl (Sevin & generics) ²	1 - 2 qt. 4F	48	F	
		1 1/4 - 2 1/2 lb. 80S	48	F	
		1 - 2 qt. XLR	48	F	
	chlorpyrifos (Lorsban & generics) ^{1,2}	1 - 2 pt. 4E	35	F	
chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	13 - 26 fl. oz. EC	21	F		
cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 fl. oz. 1E	21	F		

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
Corn Root-worm Beetles (con't)	deltamethrin (generics) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	F	
	esfenvalerate (Asana XL & generics) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	F	
	gamma-cyhalothrin (generics) ^{1,2}	2.6 - 3.8 fl. oz. 0.5EC	21	F	
		1.0 - 1.5 fl. oz. EC	21	F	
	lambda-cyhalothrin (Warrior & generics) ^{1,2}	2.6 - 3.8 fl. oz. 1CS	21	F	
	permethrin (Pounce & generics) ^{1,2}	4 - 8 fl. oz. 3.2EC	30	S-PEB, F	
		6.4 - 9.6 fl. oz. 25WP	30	S-PEB, F	
zeta-cypermethrin (Mustang Max & generics) ^{1,2}	2.7 - 4.0 fl. oz. 0.8EW	30	F		
zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F		
Corn Root-worm Larvae	bifenthrin (Capture & generics) ¹	0.3 fl. oz./1000 ft. of row 2EC	30	S-B	Previous crop, corn: if average beetle count per plant exceeds 1/2 beetle from last year.
	chlorothoxyphos & bifenthrin (Smart Choice) ¹	4.5 - 5.0 oz/1000 ft. of row 5G (SmartBox)	-	S-IF	
	chlorpyrifos (Lorsban & generics) ¹	2.4 fl. oz./1000 ft. of row 4E	35	S-B	Previous crop, soybean: if yellow sticky traps averaged 5 or more beetles/trap/day over any 7 day period from late July through August in last year's soybean.
	chlorpyrifos (Lorsban & generics) ¹	2 pt. 4E	35	S-Cult	
	chlorpyrifos (Lorsban & generics) ¹	8.0 oz./1000 ft. of row 15G	35	S-B, S-IF, S-Cult	
	clothianidin (Poncho 1250)	Commercially applied to seed	-	ST	Post emergence: 2 or more larvae per plant by hand sorting prior to lay-by.
	tebupirimphos & cyfluthrin (Aztec) ¹	6.7 oz./1000 ft. of row 2.1G	-	S-B, S-IF	
		3.0 oz./1000 ft. of row 4.67G (SmartBox)	-	S-B, S-IF	
	terbufos (Counter) ¹	6 - 8 oz./1000 ft. of row 15G	-	S-B, S-IF	
tefluthrin (Force) ¹	4 - 5 oz./1000 ft. of row 3G	-	S-B, S-IF		
	0.46 - 0.57 fl. oz./1000 ft. of row CS	-	S-B, S-IF		
transgenic seed (AcreMax, Agrisure RW, Genuity VT, Herculex RW/EXTRA, SmartStax, Yieldgard RW/Plus/VT)	Commercially inserted in seed	-	TG		

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European Corn Borer	<i>Bacillus thuringiensis</i> (several Bt products)				Base controls on anticipated yield, level of infestation, number of larvae per plant, corn growth stage, expected level of control, and cost of product and application. Refer to Field Crops IPM website < http://www.entm.purdue.edu/fieldcropsipm/ >
	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 fl. oz. 2EC	30	F	
	chlorpyrifos (Lorsban & generics) ^{1,2}	1.5 - 2 pt. 4E	30	F, F-B	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	19 - 38 fl. oz. EC	21	F	
	chlorpyrifos (Lorsban & generics)	3.5 - 8.0 lb. 15G	35	F, F-B	
	cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 fl. oz. 1E	21	F	
	deltamethrin (generics) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	F	
	flubendiamide (Belt SC)	2 - 3 fl. oz. SC	28	F	
	gamma-cyhalothrin (generics) ^{1,2}	2.6 - 3.8 fl. oz. 0.5EC	21	F	
		1.0 - 1.5 fl. oz. EC	21	F	
	lambda-cyhalothrin (Warrior & generics) ^{1,2}	2.6 - 3.8 fl. oz. 1CS	21	F	
	permethrin (Pounce & generics) ^{1,2}	4 - 8 fl. oz. 3.2EC	30	S-PEB, F	
		6.4 - 9.6 fl. oz. 25 WP	30	S-PEB, F	
	permethrin (Pounce) ¹	6.7 - 13.3 lb. 1.5G	30	F, F-B	
	spinosad (Tracer) ²	1 - 3 fl. oz. 4SC	28	F	
transgenic seed	Commercially inserted in seed	-	TG		
zeta-cypermethrin (Mustang Max & generics) ^{1,2}	2.7 - 4.0 fl. oz. 0.8EW	30	F		
zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F		
Fall Army-worm	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 fl. oz. 2EC	30	F	More than 75% of plants show whorl feeding, plants are stressed, and larvae less than 1-1/4" long.
	carbaryl (Sevin & generics) ²	1 - 2 qt. 4F	48	F	
		1 1/4 - 2 1/2 lb. 80S 1 - 2 qt. XLR	48 48	F F	

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
Fall Armyworm (con't)	chlorpyrifos (Lorsban & generics) ^{1,2}	1 - 2 pt. 4E	35	F	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	13 - 26 fl. oz. EC	21	F	
	flubendiamide (Belt SC)	2 - 3 fl. oz. SC	28	F	
	gamma-cyhalothrin (generics) ^{1,2}	1.0 - 1.5 fl. oz. EC	21	F	
	transgenic seed (AcreMax, Genuity VT, Herculex, SmartStax, Viptera)	Commercially inserted in seed	-	TG	
	zeta-cypermethrin (Mustang Max & generics) ^{1,2}	3.2 - 4.0 fl. oz. 0.8EW	30	F	
	zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F	
Grasshopper	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 fl. oz. 2EC	30	F	8 or more adults or 15 or more nymphs/square yard in field borders. 3 or more grasshoppers per square yard in the field. Numbers may need to be lowered if field is under drought stress.
	carbaryl (Sevin & generics) ²	1/2 - 1 1/2 qt. 4F	48	F	
		5/8 - 1 7/8 lb. 80S	48	F	
		1/2 - 1 1/2 qt. XLR	48	F	
	chlorpyrifos (Lorsban & generics) ^{1,2}	1/2 - 1 pt. 4E	35	F	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	7 - 13 fl. oz. EC	21	F	
	cyfluthrin (Baythroid XL) ^{1,2}	2.1 - 2.8 fl. oz. 1E	21	F	
	deltamethrin (generics) ^{1,2}	1.0 - 1.5 fl. oz. 1.5EC			
	dimethoate (Dimethoate) ²	1 pt. 4E	14	F	
	esfenvalerate (Asana XL & generics) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	F	
gamma-cyhalothrin (generics) ^{1,2}	2.6 - 3.8 fl. oz. 0.5EC	21	F		
	1.0 - 1.5 fl. oz. EC	21	F		
lambda-cyhalothrin (Warrior & generics) ^{1,2}	2.6 - 3.8 fl. oz. 1CS	21	F	Treat field if about 3 or more adults or nymphs/yard are estimated.	

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Grass-hopper (con't)	zeta-cypermethrin (Mustang Max & generics) ^{1,2}	2.7 - 4.0 fl. oz. 0.8EW	30	F	
	zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	2.6 - 6.1 fl. oz. EC	30	F	
Japanese beetle	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 fl. oz 2EC	30	F	When tassels are shedding pollen and green silk is continuously clipped back to 1/2 inch or less before 50% pollination has taken place and beetles are present. Beetles usually concentrated along borders.
	carbaryl (Sevin & generics) ²	1 - 2 qt. 4F	48	F	
		1 1/4 - 2 1/2 lb. 80S	48	F	
		1 - 2 qt. XLR	48	F	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	38 - 42 fl. oz. EC	21	F	
	cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 fl. oz. 1E	21	F	
	deltamethrin (generics) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	F	
	gamma-cyhalothrin (generics) ^{1,2}	2.6 - 3.8 fl. oz. 0.5EC	21	F	
	lambda-cyhalothrin (Warrior & generics) ^{1,2}	2.6 - 3.8 fl. oz. 1CS	21	F	
zeta-cypermethrin (Mustang Max & generics) ^{1,2}	2.7 - 4.0 fl. oz. 0.8EW	30	F		
zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F		
Maize Billbug	chlorpyrifos (Lorsban & generics) ^{1,2}	2 - 4 pt. 4E	35	S-PEB, F	At planting: fields or field areas that have history of damage, often high organic matter soils with yellow nutsedge. Post emergence: when feeding is killing plants and reducing corn stands to critical levels.
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	38 - 42 fl. oz. EC	21	F	

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
Seedcorn Beetles	bifenthrin (Capture & generics) ¹	0.3 fl. oz./1000 ft. of row 2EC	30	S-B	At planting: apply treatments to fields with a history of damage. Post emergence: no rescue treatments available. Apply treatments if replanting into damaged field and seedcorn beetles are still present.
	permethrin (Kernel Guard Supreme)	1.5 oz./42 lb. of seed	-	ST	
	chlorpyrifos (Lorsban & generics) ¹	2.4 fl. oz./1000 ft. of row 4E	35	S-B	
	chlorpyrifos (Lorsban)	8.0 oz./1000 ft. of row 15G	35	S-B, S-IF	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	3.8 fl. oz./1000 ft. of row EC	21	S-B	
	tebupirimphos & cyfluthrin (Aztec) ¹	6.7 oz./1000 ft. of row 2.1G 3.0 oz./1000 ft. of row 4.67G (SmartBox)	-	S-B, S-IF	
	terbufos (Counter) ¹	6 - 8 oz./1000 ft. of row 15G	-	S-B, S-IF	
	tefluthrin (Force) ¹	4 - 5 oz./1000 ft. of row 3G 0.46 - 0.57 fl. oz./1000 ft. of row CS	- -	S-B, S-IF S-B, S-IF	
Seedcorn Maggot	bifenthrin (Capture & generics) ¹	0.3 fl. oz./1000 ft. of row 2EC	30	S-B	At planting: apply treatments if planting into moist, heavily manured or residue covered field. Post emergence: no rescue treatments available. Apply treatments if replanting into damaged field and maggots are still present.
	permethrin (Kernel Guard Supreme)	1.5 oz./42 lb. of seed	-	ST	
	chlorethoxyphos & bifenthrin (Smart Choice) ¹	3.0 - 3.5 fl. oz./1000 ft. of row 5G (Smartbox)	-	S-IF	
	chlorpyrifos (Lorsban & generics) ¹	2.4 fl. oz./1000 ft. of row 4E	35	S-B	
	chlorpyrifos (Lorsban & generics)	8.0 oz./1000 ft. of row 15G	35	S-B, S-IF	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	3.8 oz./1000 ft. of row EC	21	S-B	
	clothianidin (Poncho 250 & 1250)	Commercially applied to seed	-	ST	
	tebupirimphos & cyfluthrin (Aztec) ¹	6.7 oz./1000 ft. of row 2.1G 3.0 oz./1000 ft. of row 4.67G (SmartBox)	-	S-B, S-IF	
terbufos (Counter) ¹	6 - 8 oz./1000 ft. of row 15G	-	S-B, S-IF		

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Seedcorn Maggot (con't)	tefluthrin (Force) ¹ thiamethoxam (Cruiser)	4 - 5 oz./1000 ft. of row 3G 0.46 - 0.57 fl. oz./1000 ft. of row CS Commercially applied to seed	- -	S-B, S-IF ST	
Slugs	methaldehyde (Deadline MPs) (Prozap Snail & Slug Bait)	10 - 40 lb. MPs 4% bait 10 lb. 3.5% bait	- -	Broadcast Broadcast	Post emergence: if leaves are significantly defoliated, field has grayish cast, and stand is threatened. Use high rate for severe infestations.
Southwestern Corn Borer	<i>Bacillus thuringiensis</i> (Several Bt products) bifenthrin (Capture & generics) ^{1,2} chlorpyrifos (Lorsban & generics) ^{1,2} chlorpyrifos (Lorsban & generics) chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2} cyfluthrin (Baythroid XL) ^{1,2} deltamethrin (generics) ^{1,2} flubendiamide (Belt SC) gamma-cyhalothrin (generics) ^{1,2} lambda-cyhalothrin (Warrior & generics) ^{1,2} permethrin (Pounce & generics) ^{1,2} permethrin (Pounce) ¹ spinosad (Tracer) ² transgenic seed	2.1 - 6.4 fl. oz. 2EC 1.5 - 2 pt. 4E 3.5 - 8.0 lb. 15G 13 - 26 fl. oz. EC 1.6 - 2.8 fl. oz. 1E 1.5 - 1.9 fl. oz. 1.5EC 2 - 3 fl. oz. SC 2.6 - 3.8 fl. oz. 0.5EC 1.0 - 1.5 fl. oz. EC 2.6 - 3.8 fl. oz. 1CS 4 - 8 fl. oz. 3.2EC 6.4 - 9.6 fl. oz. 25WP 6.7 - 13.3 lb. 1.5G 2 - 3 fl. oz. 4SC Commercially inserted in seed	- 30 35 35 21 21 21 28 21 21 21 30 30 30 28 -	F-B F F F, F-B F F F F F F F F, F-B F TG	First generation: at or just before 35% of the plants show fresh whorl feeding and live larvae are present. Second generation: controls are less effective and generally not economical for field corn.

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
South-western Corn Borer (con't)	zeta-cypermethrin (Mustang Max & generics) ^{1,2}	2.7 - 4.0 fl. oz. 0.8EW	30	F	
	zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	4.0 - 10.3 fl. oz. EC	30	F	
Spider Mites	dimethoate (Dimethoate) ²	1 pt. 4E	14	F	Before dent stage: 15 to 20% of the leaf area is covered with mites, moderate damage is noted, and hot dry conditions are expected.
	spiromesifen (Oberon)	3 - 8 fl. oz. 4SC	30	F	
Stalk Borer	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 fl. oz. 2EC	30	F	Treatment protects only uninfested plants. When crop stands are threatened, controls should be applied to prevent additional plant damage and/or death. Spot spraying infested area(s) of the field is often effective.
	chlorpyrifos (Lorsban & generics) ^{1,2}	2 - 3 pt. 4E	35	F	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	19 - 38 fl. oz. EC	21	F	
	cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 oz. 1E	21	F	
	deltamethrin (generics) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	F	
	esfenvalerate (Asana XL & generics) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	F	
	gamma-cyhalothrin (generics) ^{1,2}	2.6 - 3.8 fl. oz. 0.5EC 1.0 - 1.5 fl. oz. EC	21 21	F F	
	lambda-cyhalothrin (Warrior & generics) ^{1,2}	2.56 - 3.84 fl. oz. CS	21	F	
	permethrin (Pounce & generics) ^{1,2}	4 - 8 fl. oz. 3.2EC 6.4 - 9.6 fl. oz. 25WP	30 30	S-PEB, F S-PEB, F	
	zeta-cypermethrin (Mustang Max & generics) ^{1,2}	2.7 - 4.0 fl. oz. 0.8EW	30	F	
	zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	2.6 - 6.1 fl. oz. EC	30	F	

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
Western Bean Cutworm	bifenthrin (Capture & generics) ^{1,2}	2.1 - 6.4 fl. oz. 2EC	30	F	Treatment may be needed if 5% of the plants have an egg mass and/or young larvae on the whorl.
	chlorpyrifos (Lorsban & generics) ^{1,2}	1 - 2 pt. 4E	35	F	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	13 - 26 fl. oz. EC	21	F	
	cyfluthrin (Baythroid XL) ^{1,2}	1.6 - 2.8 oz. 1E	21	F	
	esfenvalerate (Asana XL & generics) ^{1,2}	2.9 - 5.8 fl. oz. 0.66EC	21	F	
	flubendiamide (Belt SC)	2 - 3 fl. oz. SC	28	F	
	gamma-cyhalothrin (generic) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	21	F	
		0.8 - 1.3 fl. oz. EC	21	F	
	lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. CS	21	F	
	permethrin (Pounce) ^{1,2}	2 - 4 fl. oz. 3.2EC	30	F	
	transgenic seed (AcreMax, Genuity VT, Herculex, SmartStax, Viptera)	Commercially inserted in seed	-	TG	
	zeta-cypermethrin (Mustang Max & generics) ^{1,2}	1.7 - 4.0 fl. oz. 0.8EW	30	F	
zeta-cypermethrin & bifenthrin (Hero) ^{1,2}	2.6 - 6.1 fl. oz. EC	30	F		
White Grubs	chlorethoxyphos & bifenthrin (Smart Choice) ¹	3.0 - 3.5 fl. oz./1000 ft. of row 5G (Smartbox)	-	S-IF	At planting: treatment may be needed if pre-plant soil evaluations or tillage operations reveal significant grub populations. Post emergence: no rescue treatments available. Apply treatments if replanting into damaged field and grubs are still present.
	chlorpyrifos (Lorsban & generics)	8.0 oz./1000 ft. of row 15G	35	S-IF	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	2.8 oz./1000 ft. of row EC	21	S-B	
	tebupirimphos & cyfluthrin (Aztec) ¹	6.7 oz./1000 ft. of row 2.1G 3.0 oz./1000 ft. of row 4.67G (SmartBox)	-	S-B, S-IF	

Pest	Material	Amount per Acre and Formulation*	Pre-Harvest Interval (Days)	Type of Application**	Treatment Guideline***
White Grubs (con't)	terbufos (Counter) ¹	6 - 8 oz./1000 ft. of row 15G	-	S-B, S-IF	
	tefluthrin (Force) ¹	5 oz./1000 ft. of row 3G	-	S-B, S-IF	
		0.46 - 0.57 fl. oz./1000 ft. of row CS	-	S-B, S-IF	
Wire-worms	bifenthrin (Capture & generics) ¹	0.3 fl. oz./1000 ft. of row 2EC	30	S-B	At planting: fields or areas of a field with a history of wireworm problems. Post emergence: no rescue treatments available. Apply treatments if replanting into damaged field and wireworms are still present.
	chlorothoxyphos & bifenthrin (Smart Choice) ¹	3.0 - 3.5 fl. oz./1000 ft. of row 5G (Smartbox)	-	S-IF	
	chlorpyrifos (Lorsban & generics)	8.0 oz./1000 ft. of row 15G	35	S-B, S-IF	
	chlorpyrifos & gamma-cyhalothrin (Cobalt) ^{1,2}	3.8 oz/1000 ft. of row EC	21	S-B	
	clothianidin (Poncho 1250)	Commerically applied to seed	-	S-B, S-IF	
	tebupirimphos & cyfluthrin (Aztec) ¹	6.7 oz./1000 ft. of row 2.1G	-	S-IF	
		3.0 oz./1000 ft. of row 4.67G (SmartBox)	-	S-B, S-IF	
	terbufos (Counter) ¹	6 - 8 oz./1000 ft. of row 15G	-	S-B, S-IF	
tefluthrin (Force) ¹	5 oz./1000 ft. of row 3G	-	S-B, S-IF		
	0.46 - 0.57 fl. oz./1000 ft. of row CS	-	S-B, S-IF		

*CS = capsulated suspension, E or EC = emulsifiable concentrate, ES = emulsifiable solution, EW = emulsifies in water, F = flowable, FM = flowable micro-encapsulated, G = granule, PMs = minipelleted, S or SP = soluble power, SC = soluble concentrate, ULV = ultra low volume, WP = wettable powder, XL = extra long, XLR = extra long residual

**F = foliar, F-B = banded on foliage, S-B = banded on soil, S-Cult = cultivation application, S-IF = soil infurrow, S-PEB = soil preemerg broadcast, ST = seed treatment, TG = transgenic seed

¹Restricted use insecticide

²Bee caution

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