

SOYBEAN INSECTICIDE PERFORMANCE RATING, 2023

	Chemistry	Restricted Entry Interval (Hours)	Restricted Use (R)	Stem Feeders			Defoliators									Defoliators and Pod Feeders				Pod Feeders		
				Cutworm	Kudzu Bug	Threecornered Alfalfa Hopper	Blister Beetle	Garden Webworm	Grasshopper	Green Cloverworm	Saltmarsh Caterpillar	Soybean Looper	Cabbage Looper	Spider Mite	Velvetbean Caterpillar	Bean Leaf Beetle	Beet Armyworm	Yellowstriped Fall Armyworm	Corn Earworm	Green Stink Bug	Brown Stink Bug	Red Banded Stink Bug
Admire/Imidacloprid	NEO	12																		3	4	4
Cruiser	NEO	12				7									5							
Gaucho	NEO	12				5									5							
Intego Suite	NEO	12				5									5							
Agri-Mek	AV	12	X										8									
Ambush/Pounce	SyP	12	X			7	6	7	4	8	4	1	6	0	8	3	3	7	4	5	5	
Asana XL/Adjourn	SyP	12	X	8	6	8	8	8	7	9	5	1	8	0	9	3	3	7	5	7	5	
<i>Bacillus thuringiensis</i>	B	4		0		0	0	5	0	8	3	7	7	0	8	0	2	0	2	0	0	
Baythroid XL	SyP	12	X	8	6	8	8	8	6	9	5	3	8	0	9	3	3	7	5	7	5	5
Belay	NEO	12			6										7					7	6	7
Besiege	DM+SyP	24	X	8	9	8	8	9	7	9	9	7	9		9	5	9	9	9	7	5	5
Blackhawk	SP	4		7	0	0	0	8	2	9	5	7	9	0	9	3	8	7	6	1	1	
Brigade/Discipline/Fanfare	SyP	12	X	9	9	9	8	7	7	9	6	3	8	8	9	7		8	5	9	7	7
Denim	AV	12	X	7					2	9	3	8	8	5			9	8	7			
Dimethoate	OP	48		0	6	6	5	5	7	3	1	2	2	4	3	8	2	4	2	8	4	3
Elevest	SyP+DM	12	X	9	9	9	8	9	7	9	9	7	9	8	9	7	9	9	9	9	7	7
Endigo ZCX	NEO+SyP	24	X	8	9	8	8	8	7	9	5	3	8	0	9	7	3	7	5	9	8	7
Heligen	Misc	4																	7			
Hero	SyP	12	X	9	9	9	8	7	7	9	6	3	8	8	9	6		8	5	9	8	6
Intrepid	IGR	4						8		8	8	7	8	0	8		8	8	5			
Intrepid Edge	IGR+SP	4								9	8	8	8		8		8	8	8			
Karate/Silencer/Lambda-Cy/Warrior	SyP	24	X	8	9	8	8	8	7	9	5	3	8	0	9	4	3	7	5	7	5	5
Lannate 2.4 LV	Car	48	X	2		5	5	8	6	9	4	7	8	0	9	6	7	7	6	7	5	
Leverage	NEO+SyP	12	X	8	6	8	8	8	7	9	5	3	8	0	9	7	3	7	5	9	7	7
Mustang Maxx/Respect	SyP	12	X	8	8	8	8	8	7	9	5	3	8	0	9	5	3	7	5	7	6	5
Orthene/Acephate	OP	24	X		6				8				7		7					8	8	7
Prevathon/Vantacor	DM	4	X					9	8	9	9	7	9		9		9	9	9			
Prolex/Declare	SyP	24	X	8	7	8	7	8	7	9	5	3	8	0	9	4	3	7	4	7	5	
Sevin	Car	12		5	6	3	8	3	7	8	5	1	1	0	8	7	3	6	6	5	4	
Steward	OX	12		9	0	0	0	8	0	9	5	8	9	0	4	2	8	8	8	1	1	

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

SOYBEAN INSECT CONTROL

Equivalent Economic Threshold Conversion Between Drop Cloth and Sweepnet

Insect	Sampling Method Used at Four Random Areas Per 40 Acres			
	Drop Cloth	Sweepnet		
	Number/5 Foot of Row	Number/25 Sweeps	Number/50 Sweeps	Number/100 Sweeps
Stink bugs – up to R6 growth stage	5	9	18	36
Stink bugs – R6 to R6.5 growth stage (DO NOT treat after R6.5.)	10	18	36	72
Red Banded stink bug – up through R6.5 (Raise threshold to 10 from R6.5-R7) (DO NOT treat after R7 if weather conditions are favorable.)		4	8	16
Soybean looper, cabbage looper, velvetbean caterpillar, armyworm complex ¹	5	29	58	116
Kudzu bug	20 nymphs	25 nymphs	50 nymphs	100 nymphs

¹Threshold numbers in association with 40 percent defoliation before bloom and 25 percent after bloom. Number represents medium and large larvae.

CAUTION: Do not allow acephate applications to drift onto adjacent rice fields. Acephate/Orthene is not labelled on rice.

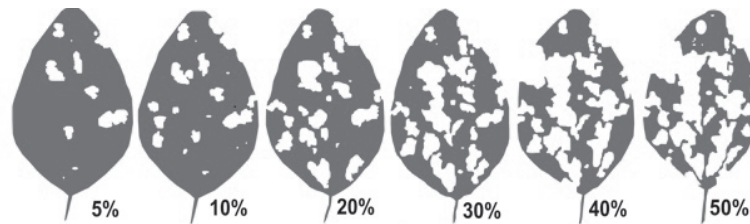
Corn Earworm Dynamic Threshold

The tables below are the result of a collaborative research effort between five states in the Mid-South including three locations in Arkansas. To determine the treatment level, estimate the potential value of the crop and the cost of the insecticide application. For example; if the crop value is \$8/bushel and the cost of control is \$14/acre, the sweepnet threshold would be 8.6 earworm per 25 sweeps.

Crop value (\$/bu)	Larvae/25 sweeps						
	Control costs (\$/acre)						
	8	10	12	14	16	18	20
6	6.5	8.2	9.8	11.4	13.1	14.7	16.3
7	5.6	7.0	8.4	9.8	11.2	12.6	14.0
8	5.0	6.1	7.4	8.6	9.8	11.0	12.3
9	5.0	5.4	6.5	7.6	8.7	9.8	10.9
10	5.0	5.0	5.9	6.9	7.8	8.8	9.8
12	5.0	5.0	5.0	5.7	6.5	7.4	8.2
13	5.0	5.0	5.0	5.3	6.0	6.8	7.5
15	5.0	5.0	5.0	5.0	5.2	5.9	6.5

Crop value (\$/bu)	Larvae/row foot						
	Control costs (\$/acre)						
	8	10	12	14	16	18	20
6	0.9	1.1	1.3	1.5	1.7	2.0	2.2
7	0.7	0.9	1.1	1.3	1.5	1.7	1.9
8	0.7	0.8	1.0	1.1	1.3	1.5	1.6
9	0.6	0.7	0.9	1.0	1.2	1.3	1.4
10	0.6	0.7	0.8	0.9	1.0	1.2	1.3
12	0.6	0.6	0.7	0.8	0.9	1.0	1.1
13	0.6	0.6	0.6	0.7	0.8	0.9	1.0
15	0.6	0.6	0.6	0.6	0.7	0.8	0.9

Defoliation Levels on Soybean Leaves



SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Cutworm Treat when infestation threatens to reduce stand to less than 4-6 plants per row foot.	beta-cyfluthrin (R) Baythroid XL 1 EC	0.8-1.6 oz	0.007-0.013	80-160		21	12
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7		21	12
	bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>	2.1-6.4 oz	0.033-0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	0.8-1.6 oz	0.013-0.025	80-160		45	12
	carbaryl Sevin XLR or 4F	1.0-1.5 qt	1.0-1.5	2.7-4.0		21	12
	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	5.8-9.6 oz	0.03-0.05	13-22		21	12
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	1.92-3.2 oz 0.77-1.28 oz	0.0075-0.0125	40-66.7 100-167		45	24
	lambda-cyhalothrin (R) Warrior II 2.08 CS <i>(See Generic Insecticides)</i>	0.96-1.6 oz	0.015-0.025	80-133		30	24
	indoxacarb Steward 1.25 SC	5.6-11.3 oz	0.055-0.11	11.5-22.8		21	12
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	1.28-4.0 oz	0.008-0.025	32-100		21	12
Kudzu Bug Treat when 4 nymphs per row foot or 25 nymphs per 25 sweeps are found.	acephate (R) Orthene/Acephate 97 S	0.75-1.0 lb	0.73-0.97			14	24
	bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>	6.4 oz	0.1	20		18	12
	lambda-cyhalothrin (R) Warrior II 2.08 CS <i>(See Generic Insecticides)</i>	1.92 oz	0.03	67		30	24
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	3.2-3.84 oz 1.28-1.54 oz	0.0125-0.015	40-66.7 83-100		45	24
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	4.0 oz	0.025	32		21	12
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	6.4-10.3 oz	0.062-0.1	12.4-20	DO NOT apply more than 0.4 lb ai of Hero per season. DO NOT apply again for 30 days.	21	12

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Threecornered Alfalfa Hopper Economic damage is unlikely when plants are greater than 10" tall. Damage usually occurs when plants are less than 10" tall. Apply when 50% of the plants are girdled or if fewer than 4-6 ungirdled plants per row foot remain in conventional rows, 30" to 38" and hopper nymphs are still present.	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.012-0.022	45-80		21	12
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7		21	12
	clothianidin Belay 2.13 EC	3-6 oz	0.05-0.1	21.3-42.7		21	12
	cyfluthrin (R) Tombstone 2 EC (See Generic Insecticides)	1.6-2.8 oz	0.025-0.044	46-80		45	12
	esfenvalerate (R) Asana XL 0.66 EC (See Generic Insecticides)	5.8-9.6 oz	0.03-0.05	13-22		21	12
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	1.92-3.2 oz 0.77-1.28 oz	0.0075-0.0125	40-66.7 100-167		45	24
	lambda-cyhalothrin (R) Warrior II 2.08 CS (See Generic Insecticides)	0.96-1.6 oz	0.015-0.025	80-133		30	24
	lambda-cyhalothrin+ chlorantraniliprole (R) Besiege 1.252	5.0-8.0 oz	0.049-0.08	16-25.6	DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season.	30	24
	imidacloprid Gaucho 600 Senator 600 Axxess 5 FS	1.6 oz/100 lb seed 1.6 oz/100 lb seed 1.6 oz/100 lb seed			Seed treatment. DO NOT graze or feed livestock on forage or hay.	12	12
	tiamethoxam Cruiser 5 FS Warden CX	1.28 oz/100 lb seed 3.38 oz/100 lb seed			Seed treatment.		12
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.8-4.0 oz	0.0175-0.025	32-45.7		21	12
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32	DO NOT apply more than 0.4 lb ai of Hero per season. DO NOT apply again for 30 days.	21	12
	Blister Beetle Before bloom, treat when 40% defoliation occurs. After bloom, treat when 25% defoliation occurs.	beta-cyfluthrin (R) Baythroid XL 1 EC	1.0-1.8 oz	0.008-0.014	71-128		21
beta-cyfluthrin + imidacloprid (R) Leverage 360		2.8 oz	0.066	45.7		21	12
bifenthrin (R) Brigade 2 EC (See Generic Insecticides)		2.1-6.4 oz	0.033-0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
bifenthrin + chlorantraniliprole (R) Elevest 2.22 SC		4.8-9.6 oz	0.84-0.167	13.3-26.7		18	12

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/ Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Blister Beetle (cont.) Before bloom, treat when 40% defoliation occurs. After bloom, treat when 25% defoliation occurs.	carbaryl Sevin XLR or 4F	2 qt	2	2		21	12
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	1.6-2.8 oz	0.025-0.044	45.7-80		45	12
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	1.92-3.2 oz 0.77-1.28 oz	0.0075-0.0125	40-66.7 100-167		45 45	24 24
	lambda-cyhalothrin (R) Warrior II 2.08 CS <i>(See Generic Insecticides)</i>	0.96-1.6 oz 2.1-6.4 oz	0.015-0.025	80-133	DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season.	30	24
	lambda-cyhalothrin + chlorantraniliprole (R) Besiege 1.252	8.0-10.0 oz	0.078-0.098	32-45.7		30	24
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	1.28-4.0 oz	0.008-0.025	32-100		21	12
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32	DO NOT apply more than 0.4 lb ai of Hero per season. DO NOT apply again for 30 days.	21	12
	Defoliating Caterpillars (Garden Webworm, Green Cloverworm, Saltmarsh Caterpillar, Cabbage Looper, Velvetbean Caterpillar, Silver-Spotted Skipper) Before bloom, treat when 40% defoliation occurs. After bloom, treat when 25% defoliation occurs. Treatment for defoliators can be terminated at R6.5 growth stage.	acephate (R) Orthene/Acephate 90 S Orthene/Acephate 97 S	0.83-1.1 lb 0.75-1.0 lb	0.75-1.0		Acephate is not labeled for garden webworm, saltmarsh caterpillar or silver-spotted skipper. DO NOT apply more than 1.5 lb ai acephate per season.	14
<i>Bacillus thuringiensis</i>		Check label.					4
beta-cyfluthrin (R) Baythroid XL 1 EC		1.8-2.4 oz	0.014-0.019	53.3-71	Rate can be dropped to 0.8 oz for green cloverworm.	21	12
beta-cyfluthrin + imidacloprid (R) Leverage 360		2.8 oz	0.066	45.7		21	12
bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>		2.1-6.4 oz	0.033-0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
bifenthrin + chlorantraniliprole (R) Elevest 2.22 SC		5.6-9.6 oz	0.098-0.167	13.3-23		18	12
carbaryl Sevin XLR or 4F		2-3 pt	1.0-1.5	2.7-4		21	12
chlorantraniliprole Vantacor 5 SC		1.2-2.5 oz	0.047-0.098	51-106.7	Vantacor is not labeled for silver-spotted skipper.	1	4
cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>		1.6-2.8 oz	0.025-0.044	45.7-80		45	12
emamectin benzoate Denim 0.16EC		8-12 oz	0.0078-0.0156	16-10.7		28	48

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/ Acre	Lb ai/Acre	Acres/ Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Defoliating Caterpillars (cont.)	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	2.9-5.8 oz	0.015-0.03	22-44	For cabbage looper, raise rate to 5.8-9.6 oz Asana XL is not labeled for garden webworm or silver-spotted skipper.	21	12
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	1.92-3.2 oz 0.77-1.28 oz	0.0075-0.0125	40-66.7 100-167	Higher rate of 1.28-1.54 oz/acre required for garden webworm and silver-spotted skipper.	45	24
	indoxacarb Steward 1.25 SC	5.6-11.3 oz	0.055-0.11	11.5-22.8	Rate for green cloverworm, saltmarsh caterpillar and cabbage looper can be lowered to 4.6 oz Will provide suppression of velvetbean caterpillar. Steward is not labeled for silver-spotted skipper.	21	12
	lambda-cyhalothrin (R) Warrrior II 2.08 CS <i>(See Generic Insecticides)</i>	1.28-1.92 oz	0.02-0.03	66.6-100	For garden webworm and silver-spotted skipper, raise rate to 1.6-1.92 oz/acre.	30	24
	lambda-cyhalothrin + chlorantraniliprole (R) Besiege 1.25	6-10 oz	0.06-0.1	13-21	DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season. Use 8-10 oz for silver-spotted skippers.	30	24
	methomyl (R) Lannate 2.4 LV	0.75-3 pt	0.22-0.9	5.3-10.6	Lannate is not labeled for garden webworm.	14	48
	methoxyfenozide Intrepid 2 F	4-8 oz	0.0625-0.125	16-32	Intrepid is not labeled for silver-spotted skipper.	14	12
	methoxyfenozide + spinetoram Intrepid Edge 3F	4-6.4	0.0975-0.187	20-32	DO NOT make more than 4 applications per year.	28	4
	permethrin (R) Ambush 2.0 E Pounce 25 W	3.2-12.8 oz 3.2-12.8 oz	0.05-0.2	20-40	Use higher rates for garden webworm. Not labeled for silver-spotted skipper.	60	12
	spinosad Blackhawk	1.1-2.2 oz	0.025-0.05		Blackhawk is not labeled for garden webworm or silver-spotted skipper. Raise rate to 1.7-2.2 oz for saltmarsh caterpillar. DO NOT apply more than 8.3 oz of Blackhawk per year. DO NOT feed treated forage to meat or dairy animals.	28	4
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.8-4.0 oz	0.0175-0.025	32-45.7	For saltmarsh caterpillar and silver-spotted skipper, the rate can be lowered to 1.28 oz Raise rate to 3.2-4 oz for cabbage loopers.	21	12
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32	DO NOT apply more than 0.4 lb ai of Hero per season. DO NOT apply again for 30 days. For green cloverworm and silver-spotted skipper, rate can be dropped to 2.6-6.1 oz.	21	12

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Grasshopper Before bloom, treat when 40% defoliation occurs. After bloom, treat when 25% defoliation occurs.	beta-cyfluthrin (R) Baythroid XL 1 EC	2.0-2.8 oz	0.016-0.022	45-64		21	12
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7		21	12
	bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>	2.1-6.4 oz	0.033-0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
	bifenthrin + chlorantraniliprole (R) Elevest 2.22 SC	4.8-9.6 oz	0.084-0.167	13.3-26		18	12
	chlorantraniliprole Prevathon 0.43 Vantacor 5 SC	8-20 oz 0.7-1.7 oz	0.027-0.067	6.4-16 183-75	Make no more than 4 applications per year. For best results, add MSO at 1% v/v.	1	4
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	2.0-2.8 oz	0.031-0.044	68-80		45	12
	diflubenzuron (R) Dimilin 2L	2 oz	0.031	64	Apply Dimilin when majority of grasshoppers have reached the 2nd to 3rd nymphal stage. Dimilin is not effective against adults.	21	
	dimethoate Dimethoate 4 E	1 pt	0.5	8		21	48
	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	5.8-9.6 oz	0.03-0.05	13-22		21	12
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	3.2-3.84 oz 1.28-1.54 oz	0.0125-0.015	40-66.7 83-100		45 45	24 24
	lambda-cyhalothrin (R) Warrior II 2.08 CS <i>(See Generic Insecticides)</i>	1.6-1.92 oz	0.025-0.03	67-80		30	24
	lambda-cyhalothrin + chlorantraniliprole (R) Besiege 1.252	8.0-10.0 oz	0.08-0.098	12.8-16	DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season.	30	24
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025	32-40		21	12
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	2.6-6.1 oz	0.025-0.06	21-49.2	DO NOT apply more than 0.4 lb ai of Hero per season. DO NOT apply again for 30 days. For green cloverworm and silver-spotted skipper, rate can be dropped to 2.6-6.1 oz.	21	12

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Soybean Looper Before bloom, treat for 40% defoliation and loopers present. After bloom, treat for 25% defoliation plus 6-8 worms per row foot. Terminate treatment when soybeans reach R6.5 growth stage.	<i>Bacillus thuringiensis</i>	Check label.			<i>Bacillus thuringiensis</i> works effectively against insecticide-resistant or susceptible populations of soybean loopers and requires 3-4 days to kill larvae.		4
	bifenthrin + chlorantraniliprole (R) Elevest 2.22 SC	5.6-9.6 oz	0.098-0.167	13.3-23		18	12
	chlorantraniliprole Prevathon 0.43 Vantacor 5 SC	14-20 oz 1.25-2.5 oz	0.047--0.067	9-6.4 107-51	Make no more than 4 applications per year. For best results, add MSO at 1% v/v.	1	4
	emamectin benzoate Denim 0.16 EC	8-12 oz	0.0078-0.0156	16-10.7		28	48
	indoxacarb Steward 1.25 SC	5.6-11.3 oz	0.055-0.11	11.5-22.8		21	12
	lambda-cyhalothrin + chlorantraniliprole (R) Besiege 1.252	10.0 oz	0.098	12.8	DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season.	30	24
	methomyl (R) Lannate 2.4 LV	1.5-3 pt	0.45-0.9	2.7-5.3		14	48
	methoxyfenozide Intrepid 2 F	4-8 oz	0.0625-0.125	16-32		14	12
	methoxyfenozide + spinetoram Intrepid Edge 3F	4-6.4 oz	0.094-0.15	20-32	DO NOT make more than 4 applications per year.	28	4
	spinosad Blackhawk	1.1-2.2 oz	0.025-0.05		DO NOT apply more than 8.3 oz of Blackhawk per year. DO NOT feed forage to meat or dairy animals.	28	4
	Spider Mites	abamectin Agri-Mek 0.7 S	1.75-3.5 oz	0.01-0.019	36.6-73		28
bifenthrin (R) Brigade 2 EC (See Generic Insecticides)		5.12-6.4 oz	0.08-0.1	20-25	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
dimethoate Dimethoate 4 E		1 pt	0.5	8		21	48
Bean Leaf Beetle Before bloom, treat when 40% defoliation occurs. After bloom, treat when 25% defoliation occurs and beetles are present. Terminate treatment when soybeans reach R6.5 growth stage. Tank mixing different chemistries has been shown to increase control.	acephate (R) Orthene/Acephate 90 S Orthene/Acephate 97 S	0.83-1.1 lb 0.75-1.0 lb	0.75-1.0		DO NOT apply more than 1.5 lb ai of acephate per season.	14	24
	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21	12
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7		21	12
	bifenthrin (R) Brigade 2 EC (See Generic Insecticides)	2.1-6.4 oz	0.033-0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Bean Leaf Beetle (cont.)	carbaryl Sevin XLR or 4F	1 pt	0.5	8		21	12
	clothianidin Belay 2.13	3-6 oz	0.05-0.11	21.3-42.7	DO NOT apply Belay within 45 days after planting seed treated with neonicotinoid seed treatments (imidacloprid, thiamethoxam). DO NOT apply at intervals less than 7 days apart. DO NOT graze or feed forage to livestock.	21	12
	cyfluthrin (R) Tombstone 2 EC (See Generic Insecticides)	1.6-2.8 oz	0.025-0.044	45.7-80		45	12
	dimethoate Dimethoate 4 E	1 pt	0.5	8		21	48
	esfenvalerate (R) Asana XL 0.66 EC (See Generic Insecticides)	5.8-9.6 oz	0.03-0.05	13-22		21	12
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	1.92-3.2 oz	0.0075-0.0125	40-66.7		45	24
		0.77-1.28 oz		100-167			
	lambda-cyhalothrin (R) Warrior II 2.08 CS (See Generic Insecticides)	0.96-1.6 oz	0.015-0.025	80-133		30	24
	imidacloprid Gaucho 600 Axxess 5 FS Senator 600	1.6 oz/100 lb seed					12
		1.6 oz/100 lb seed					
		1.6 oz/100 lb seed					
	thiamethoxam Cruiser 5 FS Warden CX	1.28 oz/100 lb seed					12
		3.38 oz/100 lb seed					
	methomyl (R) Lannate 2.4 LV	1-1.5 pt	0.3-0.45	5.3-8		14	48
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.8-4.0 oz	0.0175-0.025	32-45.7		21	12
zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32	21	12		
Armyworm Complex	PYRETHROIDS (Baythroid, Brigade, Tombstone, Prolex, Declare, Karate, Mustang Maxx, Hero) are not effective against beet armyworm. DO NOT USE.						
(Yellowstriped, Fall and Beet Armyworm) Before bloom, treat when 40% defoliation occurs and an active population.	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21	12
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7		21	12
	bifenthrin (R) Brigade 2 EC (See Generic Insecticides)	2.1-6.4 oz	0.033-0.1	20-61		18	12
	chlorantraniliprole Prevathon 0.43 Vantacor 5 SC	14-20 oz	0.047-0.067	6.4-9.14	1	4	
		1.2-2.5 oz		107-51			

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/ Acre	Lb ai/Acre	Acres/ Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours	
Armyworm Complex (Yellowstriped, Fall and Beet Armyworm) (cont.)	cyfluthrin (R) Tombstone 2 EC (See Generic Insecticides)	1.6-2.8 oz	0.025-0.044	45.7-80		45	12	
	emamectin benzoate (R) Denim 0.16 EC	8-12 oz	0.0078-0.0156	16-10.7	For beet armyworm lower rate range to 6-8 oz.	28	48	
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	3.2-3.84 oz 1.28-1.54 oz	0.0125-0.015	40-66.7 83-100		45	24	
	lambda-cyhalothrin (R) Warrior II 2.08 CS (See Generic Insecticides)	1.6-1.92 oz	0.025-0.03	69-83		30	24	
	lambda-cyhalothrin + chlorantraniliprole (R) Besiege 1.252	8.0-10.0 oz	0.08-0.098	12.8-16	DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season.	30	24	
	indoxacarb Steward 1.25 SC	4.6-11.3 oz	0.045-0.11	11.3-27.8		21	12	
	methomyl (R) Lannate 2.4 LV	1-1.5 pt	0.3-0.45	5.3-8		14	48	
	methoxyfenozide Intrepid 2 F	4-8 oz	0.0625-0.125	16-32		14	12	
	methoxyfenozide + spinetoram Intrepid Edge 3F	4-6.4	0.094-0.15	20-32	DO NOT make more than 4 applications per year.	28	4	
	spinosad Blackhawk	1.67-3.3 oz	0.038-0.075		DO NOT apply more than 8.3 oz of Blackhawk per year. DO NOT feed treated forage to meat or dairy animals.	28	4	
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025	32-40		21	12	
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32	DO NOT apply more than 0.4 lb ai of Hero per season. DO NOT apply again for 30 days.	21	12	
	Fire Ant (Red Imported, Black Imported and hybrid)	Fire ant colonies are often concentrated near field edges and fire ant foraging distance tends to be greater in soybean fields than other sites such as pastures and turf. Trials using outside perimeter and turnrow fire ant bait applications have demonstrated significant reduction fire ant abundance within the soybean field.						
		Fire ant foraging is reduced when soil temperature is below 60 °F. To confirm fire ants are actively foraging place small pieces of hot dogs in areas you plan on treating. If after 30 minutes the hot dog pieces are covered by fire ants, fire ants are foraging and will pick up the fire ant bait.						
Accurate fire ant bait applications using ground equipment are best achieved using a Herd® GT-77 fire ant bait applicator attached to an ATV.								
Extinguish Plus Fire Ant Bait (0.365% hydramethylnon and 0.25% (S)-methoprene)		1.5 lbs	0.005 h 0.004 (S)	0.75		Outside perimeter and turnrows ONLY. Do not apply Extinguish Plus within the field. Do not apply if rain is anticipated within 6 hours.	N/A	12
Extinguish Professional Fire ant Bait (0.5% (S)-methoprene)		1-1.5 lbs	0 . 0 0 5 0.0075	– 0.75-1.0		Within field and outside perimeter and turnrow application. Do not apply if rain is anticipated within 6 hours. Do not irrigate treated fields for 24 hours after application.	0	4
Esteem Ant Bait (0.50% pyriproxyfen)	1.5-2.0 lbs	0.0075 – 0.01	0.5 – 0.75		Within field applications and outside perimeter and turnrow application. Do not apply if rain is anticipated within 2-4 hours. Do not irrigate treated fields for 24 hours after application.	1	12	

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/ Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Corn Earworm and Tobacco Budworm Before bloom, treat when 40% defoliation occurs. After bloom, use threshold table.	Synthetic Pyrethroids	In recent years, pyrethroids have shown reduced efficacy and can be expected to provide poor to moderate control. Consider tank-mixing another chemistry when using a pyrethroid.					
	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80	DO NOT use synthetic pyrethroids on populations of tobacco budworm. Tobacco budworm is resistant to this chemistry.	21	12
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7		21	12
	bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>	2.1-6.4 oz	0.033-0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	1.6-2.8 oz	0.025-0.044	45.7-80		45	12
	gamma-cyhalothrin (R) Proaxis 0.5 CS Declare 1.25 CS	1.92-3.2 oz 0.77-1.28 oz	0.0075-0.0125	40-66.7 100-167		45	24
	lambda-cyhalothrin (R) Warrior II 2.08 CS <i>(See Generic Insecticides)</i>	1.28-1.92 oz	0.02-0.03	67-100		30	24
	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	5.8-9.6 oz	0.03-0.05	13-22		21	12
	permethrin (R) Ambush 2.0 E Pounce 25 W	6.4-12.8 oz 6.4-12.8 oz	0.1-0.2	10-20	Permethrin: DO NOT graze treated areas or harvest for forage or hay. DO NOT make more than 2 applications per season.	60	12
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.8-4.0 oz	0.0175-0.025	32-45.7		21	12
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32	DO NOT apply more than 0.4 lb ai of Hero per season. DO NOT apply again for 30 days.	21	12
	Carbamates carbaryl Sevin XLR or 4F	1-3 pt	0.5-1.5	2.7-8		21	12
	methomyl (R) Lannate 2.4 LV	0.75-1.5 pt	0.225-0.45	5.3-10.7		14	48
	Other Chemistry nucleopolyhedrovirus Heligen	1-1.6 oz		80-128	Apply before reaching economic threshold targeting small larvae. Applications to large larvae often result in poor control. Larvae stop feeding within 1-3 days and die within 3-9 days. Refer to publication AG1306 for more information.	0	4
	bifenthrin + chlorantraniliprole (R) Elevest 2.22 SC	5.6-9.6 oz	0.098-0.167	13.3-23		18	12
chlorantraniliprole Prevathon 0.43 Vantacor 5 SC	14-20 oz 1.2-2.5 oz	0.047-0.067	6.4-9.14 107-51	Make no more than 4 applications per year.	1	4	

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Corn Earworm and Tobacco Budworm (cont.)	Other Chemistry emamectin benzoate (R) Denim 0.16 EC	8-12 oz	0.0078-0.0156	16-10.7		28	48
	indoxacarb Steward 1.25 SC	5.6-11.3 oz	0.055-0.11	11.5-22.8		21	12
	lambda-cyhalothrin + chlorantraniliprole (R) Besiege 1.252	8.0-10.0 oz	0.08-0.098	12.8-16	DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season.	30	24
	methoxyfenozide + spinetoram Intrepid Edge 3F	4-6.4	0.094-0.15	20-32	DO NOT make more than 4 applications per year.	28	4
	spinosad Blackhawk	1.67-2.2 oz	0.038-0.05		DO NOT apply more than 8.3 oz of Blackhawk per year. DO NOT feed treated forage to meat or dairy animals.	28	4
ROOT FEEDER Grape Colaspis	chlothianidin Intego Suite	3.37 oz/100 lb seed					
	imidacloprid Gaucho 600 Access 5 FS Senator 600	1.6 oz/100 lb seed 1.6 oz/100 lb seed 1.6 oz/100 lb seed			A seed treatment can be beneficial in areas where grape colaspis has historically been a problem.		12
	thiamethoxam Cruiser 5 FS Warden CX	1.28 oz/100 lb seed 3.2 oz/100 lb seed					12
Green Stink Bug, Southern Green Stink Bug, Red Shouldered Stink Bug Treat when an average of 1 stink bug per row foot is found using a shake sheet or 9 stink bugs per 25 sweeps up to R6 growth stage. Double threshold (18 per 25 sweeps) from R6 to R6.5 growth stage and terminate sprays after R6.5, keeping application-to-harvest interval restrictions in mind.	acephate (R) Orthene/Acephate 90 S Orthene/Acephate 97 S	0.56-1.1 lb 0.50-1.0 lb	0.5-1.0		DO NOT apply more than 1.5 lb ai acephate per season.	14	24
	beta-cyfluthrin (R) Baythroid XL 1 EC	1.5-2.8 oz	0.013-0.022	45.7-80		21	12
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7		21	12
	bifenthrin (R) Brigade 2 EC (See Generic Insecticides)	2.1-6.4 oz	0.033-0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
	bifenthrin + chlorantraniliprole (R) Elevest 2.22 SC	5.6-9.6 oz	0.098-0.167	13.3-23		18	12
	clothianidin Belay 2.13	3-6 oz	0.05-0.1	21.3-42.7	DO NOT apply Belay treatments less than 7 days apart. DO NOT apply more than 12 oz per acre.	21	12
	cyfluthrin (R) Tombstone 2 EC (See Generic Insecticides)	1.6-2.8 oz	0.025-0.044	45.7-80		45	12
	esfenvalerate (R) Asana XL 0.66 EC (See Generic Insecticides)	5.8-9.6 oz	0.03-0.05	13-22		21	12

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Green Stink Bug, Southern Green Stink Bug, Red Shouldered Stink Bug (cont.) Treat when an average of 1 stink bug per row foot is found using a shake sheet or 9 stink bugs per 25 sweeps up to R6 growth stage. Double threshold (18 per 25 sweeps) from R6 to R6.5 growth stage and terminate sprays after R6.5, keeping application-to-harvest interval restrictions in mind.	gamma-cyhalothrin (R) Proaxis 0.5 CS	3.2-3.84 oz	0.0125-0.015	40-66.7 83-100		45	24
	lambda-cyhalothrin (R) Warrior II 2.08 CS <i>(See Generic Insecticides)</i>	1.6-1.92 oz	0.025-0.03	67-80		30	24
	lambda-cyhalothrin + chlorantraniliprole (R) Besiege 1.25Z	8.0-10.0 oz	0.08-0.098	12.8-16	DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season.	30	24
	lambda-cyhalothrin + thiamethoxam (R) Endigo ZC 2.06	4.0-4.5 oz	0.064-0.07	28.4-32		30	24
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025	32-40		21	12
	zeta-cypermethrin + bifenthrin + imidacloprid (R) Triple Crown 2.25	4.8 oz	0.084	33	DO NOT apply again for 30 days.	21	12
	zeta-cypermethrin + bifenthrin (R) Hero 1.24 EC	4.0-10.3 oz	0.04-0.1	12.4-32	DO NOT apply more than 0.4 lb ai of Hero per season. DO NOT apply again for 30 days.	21	12
Brown Stink Bug Treat when an average of 1 stink bug per row foot is found using a shake sheet or 9 stink bugs per 25 sweeps up to R6 growth stage. Double threshold (18 per 25 sweeps) from R6 to R6.5 growth stage and terminate sprays after R6.5, keeping application-to-harvest interval restrictions in mind.	acephate (R) Orthene/Acephate 90 S Orthene/Acephate 97 S	0.56-1.1 lb 0.5-1.0 lb	0.5-1.0		DO NOT apply more than 1.5 lb ai acephate per season.	14	24
	bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>	2.1-6.4 oz	0.033-0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
	clothianidin Belay 2.13	4-6 oz	0.05-0.1	21.3-42.7	DO NOT apply Belay treatments less than 7 days apart. DO NOT apply more than 12 oz per acre.	21	12
	lambda-cyhalothrin + thiamethoxam (R) Endigo ZC 2.06	4.0-4.5 oz	0.064-0.07	28.4-32		30	24
	zeta-cypermethrin + bifenthrin + imidacloprid (R) Triple Crown 2.25	4.8 oz	0.084	33	DO NOT apply again for 30 days.	21	12
Redbanded Stink Bug Treat when an average of 4 stink bugs per 25 sweeps up to R6.5 growth stage.	acephate (R) Orthene/Acephate 90 S Orthene/Acephate 97 S	0.56-1.1 lb 0.50-1.0 lb	1.0		DO NOT apply more than 1.5 lb ai acephate per season. DO NOT tank mix acephate with sodium chlorate. Tank mixing with sodium chlorate may result in explosion of fire.	14	24
	bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>	2.1-6.4 oz	0.1	20-61	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18	12
	clothianidin Belay 2.13	4-6 oz	0.07-0.1	21.3-32	DO NOT apply Belay treatments less than 7 days apart. DO NOT apply more than 12 oz per acre.	21	12

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/ Acre	Lb ai/ Acre	Acres/ Gallon	Application/Comments	Minimum Days From Last Application to Harvest	Restricted Entry Interval (REI) Hours
Redbanded Stink Bug (cont.) Treat when an average of 10 bugs per 25 sweeps from R6.5 to R7. Terminate insecticide applications at R7 if weather conditions are favorable.	lambda-cyhalothrin + thiamethoxam (R) Endigo ZC 2.06	4.0-4.5 oz	0.064-0.07	28.4-32		30	24
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	28.32		21	12
	Tank Mix Options With Bifenthrin						
	acephate (R) Orthene 97S	0.5 lb	0.5		Tank mix Orthene, Belay or Imidacloprid with 5.12 fl oz of bifenthrin (Brigade 2EC or generic) per acre. Tank mixes have proven to give superior control.	18	24
	clothianidin Belay 2.13	3 oz	0.05	42.7		21	12
	imidacloprid (R) Imidacloprid 4F Imidacloprid 2F (See Generic Insecticides)	1.5 oz 3 oz	0.047	85.3 42.7		21	12
Multiple Pests For control of multiple pests exceeding thresholds.	acephate + bifenthrin (R) Acentrin 80 S	8-21 oz	0.4-1.05		Bollworm, Cutworm, Grasshopper, Bean Leaf Beetle, Stink Bugs, Cabbage Looper, Green Cloverworm, Velvetbean Caterpillar, Kudzu Bug, Spider Mites, Garden Webworm	14	24
	acetamiprid + bifenthrin (R) Justice 1.8 EC	2.5-5.0 oz	0.035-0.07	25.6-51.2	Bollworm, Cutworm, Grasshopper, Bean Leaf Beetle, Stink Bugs, Cabbage Looper, Green Cloverworm, Velvetbean Caterpillar, Kudzu Bug, Spider Mites, Garden Webworm	30	12
	bifenthrin (R) + acetameprid Argyle 1.52 OD	5-9 oz	0.06-0.11	14-25.6	Bollworm, Cutworm, Grasshopper, Bean Leaf Beetle, Stink Bugs, Cabbage Looper, Green Cloverworm, Velvetbean Caterpillar, Kudzu Bug, Spider Mites, Garden Webworm	30	12
	bifenthrin + chlorantranilprole Elevest 2.22 SC	4.8-9.6 oz	0.084- 0.167	26.7-13	Bollworm, Tobacco Budworm, Cutworm, Grasshopper, Bean Leaf Beetle, Stink Bugs, Loopers, Green Cloverworm, Velvetbean Caterpillar, Kudzu Bug, Garden Webworm, Saltmarsh Caterpillar	18	12
	gamma-cyhalothrin (R) + spinosad Consero 5.25 SC	2-4 oz	0.08-0.16	32-64	Bollworm, Tobacco Budworm, Cutworm, Grasshopper, Green Stink Bugs, Cabbage Looper, Green Cloverworm, Velvetbean Caterpillar, Garden Webworm	28	24
	imidacloprid + beta-cyfluthrin (R) Leverage 360 SC	2.8 oz	0.067	45.7	Bollworm, Cutworm, Grasshopper, Bean Leaf Beetle, Stink Bugs, Cabbage Looper, Green Cloverworm, Velvetbean Caterpillar, Kudzu Bug, Garden Webworm	21	12
	lambda-cyhalothrin (R) + chlorantranilprole Besiege 1.25 SC	5-10 oz	0.49-0.98	12.8-25.6	Bollworm, Tobacco Budworm, Cutworm, Grasshopper, Bean Leaf Beetle, Green Stink Bugs, Loopers, Green Cloverworm, Velvetbean Caterpillar, Kudzu Bug, Garden Webworm, Saltmarsh Caterpillar	30	24
	lambda-cyhalothrin (R) + thiamethoxam Endigo 2.06 ZC	2.5-4.5 oz	0.04-0.07	28.4-51.2	Bollworm, Cutworm, Grasshopper, Bean Leaf Beetle, Stink Bugs, Cabbage Looper, Green Cloverworm, Velvetbean Caterpillar, Kudzu Bug, Garden Webworm	30	24
zeta-cypermethrin + bifenthrin + imidacloprid (R) Triple Crown 2.25	3.5-4.8 oz	0.061- 0.084	33-36.6	Bollworm, Cutworm, Grasshopper, Bean Leaf Beetle, Stink Bugs, Cabbage Looper, Green Cloverworm, Velvetbean Caterpillar, Kudzu Bug, Spider Mites, Garden Webworm	21	12	