

SOYBEAN INSECTICIDE PERFORMANCE RATING, 2018

Rating Scale: 0 = no control 10 = excellent	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																
Cruiser	NEO	12			7										5							
Gaucho	NEO	12			5										5							
Ambush/Pounce	SyP	12	X			7	6	7	4	8	4	2	6	0	8	3	3	7	4	5	5	
Asana XL/Adjourn	SyP	12	X	8	6	8	7	8	7	9	5	3	7	0	9	3	3	7	5	7	5	
<i>Bacillus thuringiensis</i>	B	4		0		0	0	5	0	8	3	6	6	0	8	0	2	0	2	0	0	
Baythroid XL	SyP	12	X	8	6	8	7	8	6	9	5	3	7	0	9	3	3	7	5	7	5	5
Belay	NEO	12			6										7					7	7	7
Belt	DM	12						9		9	8	8	9				8	9	8			
Besiege	DM+SyP	24	X	8	9	8	7	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	8	9	0	9	3	8	7	8	1	1	
Brigade/Discipline/Fanfare	SyP	12	X	9	9	9	7	7	7	9	6	3	7	8	9	7		8	5	8	8	7
Cobalt Advanced	OP+SyP	24	X	8	8	8	7	8	8	9	5	3	7	4	9	7	5	7	4	7	5	7
Dimethoate	OP	48		0	6	6	5	5	7	3	1	2	2	4	3	8	2	4	2	8	4	
Endigo ZCX	NEO+SyP	24	X	8	9	8	7	8	7	9	5	3	7	0	9	7	3	7	5	8	8	7
Heligen	Misc	4																	7			
Hero	SyP	12	X	9	9	9	7	7	7	9	6	3	7	8	9	6		8	5	8	8	
Intrepid	IGR	4						8		8	8	8	8	0	8		8	8	7			
Intrepid Edge	IGR+SP	4								9	8	8	8		8		8	8	8			
Karate/Silencer/Lambda-Cy/Warrior	SyP	24	X	8	9	8	7	8	7	9	5	3	7	0	9	4	3	7	5	7	5	5
Lannate 2.4 LV	Car	48	X	2		5	5	8	6	9	4	7	7	0	9	6	7	7	8	7	5	
Larvin 3.2 F	Car	48	X	5		2	2	8	5	9	5	8	8	0	9	8	7	7	8	3	2	
Leverage	NEO+SyP	12	X	8	6	8	7	8	7	9	5	3	7	0	9	7	3	7	5	8	7	7
Lorsban/Nufos/Warhawk	OP	24	X	8		4	4	5	8	7	1	3	4	4	7	4	5	5	5	6	4	
Mustang Maxx/Respect	SyP	12	X	8	8	8	7	8	7	9	5	3	7	0	9	5	3	7	5	7	6	5
Orthene/Acephate	OP	24	X		6				8				7		7					8	8	7
Prevathon	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	7	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.

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

## 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 (at least 8 shakes)	Sweepnet (at least four 25-sweep samples)		
	Number/Foot of Row	Number/25 Sweeps	Number/50 Sweeps	Number/100 Sweeps
Stink bugs – up to R6 growth stage	1	9	18	36
Stink bugs – R6 to R6.5 growth stage (DO NOT treat after R6.5.)	2	18	36	72
Red Banded stink bug – up through R7 (DO NOT treat after R7.)		4	8	16
Soybean looper, cabbage looper, velvetbean caterpillar, green cloverworm, armyworm complex <sup>1</sup>	6	29	58	116
Kudzu bug	4 nymphs	25 nymphs	50 nymphs	100 nymphs

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

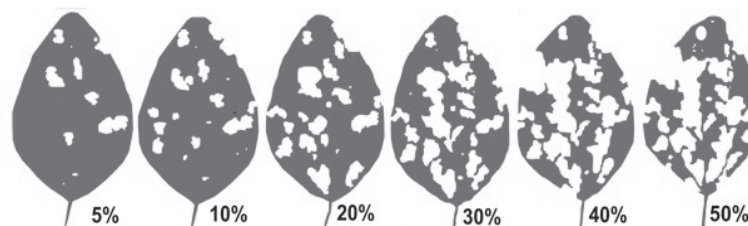
### Corn Earworm Dynamic Threshold

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**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>	
<b>STEM FEEDERS</b>							
<b>Cutworm</b>  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	
	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	
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	0.8-1.6 oz	0.013-0.025	80-160		45	
	carbaryl Sevin XLR or 4F	1.0-1.5 qt	1.0-1.5	2.7-4.0		21	
	chlorpyrifos (R) Lorsban 4 E <i>(See Generic Insecticides)</i>	1-2 pt	0.5-1.0	4-8		28	
	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	5.8-9.6 oz	0.03-0.05	13-22		21	
	gamma-cyhalothrin 1.25 (R) Prolex/Declare CS	0.77-1.28 oz	0.0075-0.0125	100-167		45	
	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	
	indoxacarb Steward 1.25 SC	5.6-11.3 oz	0.055-0.11	11.5-22.8		21	
	thiodicarb (R) Larvin 3.2 F	1.25-1.9 pt	0.5-0.75	4.3-6.4	DO NOT feed forage, hay or straw treated with Larvin. Use minimum 3 gal by air, 15 gal by ground finish spray.	28	
	zeta-cypermethrin 0.8 EC (R) Mustang Maxx	1.28-4.0 oz	0.008-0.025	32-100		21	
	<hr/>						
	<b>Kudzu Bug</b>  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
bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>		6.4 oz	0.1	20		18	
lambda-cyhalothrin (R) Warrior II 2.08 CS <i>(See Generic Insecticides)</i>		1.92 oz	0.03	67		30	
gamma-cyhalothrin 1.25 (R) Prolex/Declare CS		1.28-1.54 oz	0.0125-0.015	83-100		45	
zeta-cypermethrin 0.8 EC (R) Mustang Maxx		4.0 oz	0.025	32		21	
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	

**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>
<b>Threecornered Alfalfa Hopper</b>  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 ungnirdled 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	0.013-0.022	45-80		21
	clothianidin Belay 2.13 EC	3-6 oz	0.05-0.1	21.3-42.7		21
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	1.6-2.8 oz	0.025-0.044	46-80		45
	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	5.8-9.6 oz	0.03-0.05	13-22		21
	gamma-cyhalothrin 1.25 (R) Prolex/Declare CS	0.77-1.28 oz	0.0075-0.0125	100-167		45
	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
	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
	imidacloprid Gaucho 600 Senator 600 Access 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.	
	thiamethoxam Cruiser 5 FS Warden CX	1.28 oz/100 lb seed 3.38 oz/100 lb seed			Seed treatment	
	zeta-cypermethrin 0.8 EC (R) Mustang Maxx	2.8-4.0 oz	0.0175-0.025	32-45.7		21
	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
	<b>DEFOLIATORS</b>					
	<b>Blister Beetle</b>  Before bloom, treat when 40% defoliation occurs. After bloom, treat when 25% defoliation occurs.	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45-80	
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
carbaryl Sevin XLR or 4F		1-2 pt	0.5-1.0	4-8		21
cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>		1.6-2.8 oz	0.025-0.044	45.7-80		45

## SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
<b>DEFOLIATORS</b>						
<b>Blister Beetle</b> (cont.)	gamma-cyhalothrin 1.25 (R) Prolex/Declare CS	1.25-1.54 oz	0.0125-0.015	83-100		45
Before bloom, treat when 40% defoliation occurs. After bloom, treat when 25% defoliation occurs.	lambda-cyhalothrin (R) Warrior II 2.08 CS (See <i>Generic Insecticides</i> )	1.6-1.92 oz	0.025-0.03	67-80		30
	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
	zeta-cypermethrin 0.8 EC (R) Mustang Maxx	2.8-4.0 oz	0.0175-0.025	32-45.7		21
	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
<b>Defoliating Caterpillars (Garden Webworm, Green Cloverworm, Saltmarsh Caterpillar, Cabbage Looper, Velvetbean Caterpillar, Silver-Spotted Skipper)</b>	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.				
	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45-80	Rate can be dropped to 0.8 oz for green cloverworm.	21
	bifenthrin (R) Brigade 2 EC (See <i>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
	carbaryl Sevin XLR or 4F	1-3 pt	0.5-1.5	2.7-8.0		21
	chlorpyrifos (R) Lorsban 4 E (See <i>Generic Insecticides</i> )	1-2 pt	0.5-1.0	4.0-8.0	Lorsban is not labeled for cabbage looper, garden webworm or silver-spotted skipper. Rate can be lowered to 0.5 pt for green cloverworm or velvetbean caterpillar.	28
	cyfluthrin (R) Tombstone 2 EC (See <i>Generic Insecticides</i> )	1.6-2.8 oz	0.025-0.044	45.7-80		45
	esfenvalerate (R) Asana XL 0.66 EC (See <i>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
	flubendiamide Belt 4 SC	2-3 oz	0.0625-0.0937	42.7-64	DO NOT apply more than 6 oz of Belt per acre per season.	14

SOYBEAN INSECT CONTROL

Insect	Insecticide	Formulation/Acre	Lb ai/Acre	Acres/Gallon	Application/Comments	Minimum Days From Last Application to Harvest
<b>Defoliating Caterpillars (Garden Webworm, Green Cloverworm, Saltmarsh Caterpillar, Cabbage Looper, Velvetbean Caterpillar, Silver-Spotted Skipper)</b>	gamma-cyhalothrin 1.25 (R) Prolex/Declare CS	0.77-1.28 oz	0.0075-0.0125	100-166	Higher rate of 1.28-1.54 oz/acre required for garden webworm and silver-spotted skipper.	45
	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
	lambda-cyhalothrin (R) Warrior II 2.08 CS (See Generic Insecticides)	0.96-1.6 oz	0.015-0.025	80-133	For garden webworm and silver-spotted skipper, raise rate to 1.6-1.92 oz/acre.	30
	lambda-cyhalothrin + chlorantraniliprole (R) Besiege 1.252	5.0-10.0 oz	0.049-0.098	12.8-25.6	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
	methomyl (R) Lannate 2.4 LV	0.75-1.5 pt	0.225-0.45	5.3-10.6	Lannate is not labeled for garden webworm.	14
	methoxyfenozide Intrepid 2 F	4-8 oz	0.0625-0.125	16-32	Intrepid is not labeled for silver-spotted skipper.	14
	methoxyfenozide + spinetoram Intrepid Edge 3F	4-6.4	0.094-0.15	20-32	DO NOT make more than 4 applications per year.	28
	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
	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
	thiodicarb (R) Larvin 3.2 F	10-30 oz	0.25	12.8	Larvin is not labeled for garden webworm or silver-spotted skipper. For cabbage looper, raise rate to 18-30 oz.	28
	zeta-cypermethrin 0.8 EC (R) Mustang Maxx	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
	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

**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>
<b>DEFOLIATORS</b> <b>Grasshopper</b>  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
	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
	chlorantraniliprole Prevathon 0.43	8-20 oz	0.027-0.067	6.4-16	Make no more than 4 applications per year. For best results, add MSO at 1% v/v.	1
	chlorpyrifos (R) Lorsban 4 E <i>(See Generic Insecticides)</i>	0.5-1.0 pt	0.25-0.5	8-16		28
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	2.0-2.8 oz	0.031-0.044	68-80		45
	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
	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	5.8-9.6 oz	0.03-0.05	13-22		21
	gamma-cyhalothrin 1.25 (R) Prolex/Declare CS	1.28-1.54 oz	0.0125-0.015	83-100		45
	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
	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
	zeta-cypermethrin 0.8 EC (R) Mustang Maxx	3.2-4.0 oz	0.02-0.025	32-40		21
	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.	21

**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>
<b>Soybean Looper</b>  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.	
	flubendiamide Belt 4 SC	2-3 oz	0.0625-0.0937	42.7-64	DO NOT apply more than 6 oz of Belt per acre per season.	14
	indoxacarb Steward 1.25 SC	5.6-11.3 oz	0.055-0.11	11.5-22.8		21
	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
	methomyl (R) Lannate 2.4 LV	1.5-3 pt	0.45-0.9	2.7-5.3		14
	methoxyfenozide Intrepid 2 F	4-8 oz	0.0625-0.125	16-32		14
	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
	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
	thiodicarb (R) Larvin 3.2 F	1.1-1.9 pt	0.45-0.75	4.3-7.1	DO NOT feed forage, hay or straw treated with Larvin.	28
	<b>Spider Mites</b>	abamectin Agri-Mek 0.7 S	1.75-3.5 oz	0.01-0.019	36.6-73	
bifenthrin (R) Brigade 2 EC <i>(See Generic Insecticides)</i>		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
chlorpyrifos (R) Lorsban 4 E <i>(See Generic Insecticides)</i>		1 pt	0.5	8	Two applications may be needed for control. Control is best using higher volumes. Total spray 15-20 gal per acre. Treat when spider mites are numerous.	28
dimethoate Dimethoate 4 E		1 pt	0.5	8		21
<b>DEFOLIATORS and POD FEEDERS</b>						
<b>Bean Leaf Beetle</b>  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.	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
	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80		21
	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



**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>		
<b>DEFOLIATORS and POD FEEDERS</b>								
<b>Bean Leaf Beetle</b> (cont.)	carbaryl Sevin XLR or 4F	1 pt	0.5	8		21		
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.	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		
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	1.6-2.8 oz	0.025-0.044	45.7-80		45		
	dimethoate Dimethoate 4 E	1 pt	0.5	8		21		
	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	5.8-9.6 oz	0.03-0.05	13-22		21		
	gamma-cyhalothrin 1.25 (R) Prolex/Declare CS	0.77-1.28 oz	0.0075-0.0125	100-167		45		
	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		
	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					Gaucho and Cruiser will suppress early-season bean leaf beetles.	
	thiamethoxam Cruiser 5 FS Warden CX	1.28 oz/100 lb seed 3.38 oz/100 lb seed						
		methomyl (R) Lannate 2.4 LV	1-1.5 pt	0.3-0.45		5.3-8		14
		zeta-cypermethrin 0.8 EC (R) Mustang Maxx	2.8-4.0 oz	0.0175-0.025		32-45.7		21
	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		
<b>Armyworm Complex</b> <b>(Yellowstriped, Fall and Beet Armyworm)</b>	beta-cyfluthrin (R) Baythroid XL 1 EC	1.6-2.8 oz	0.013-0.022	45.7-80	PYRETHROIDS (Baythroid, Brigade, Tombstone, Prolex, Declare, Karate, Mustang Maxx, Hero) are not effective against beet armyworm. DO NOT USE.	21		
Before bloom, treat when 40% defoliation occurs and an active population.	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		
	chlorantraniliprole Prevathon 0.43	14-20 oz	0.047-0.067	6.4-9.14	Make no more than 4 applications per year.	1		

**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>
<b>Armyworm Complex (Yellowstriped, Fall and Beet Armyworm)</b>	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	1.6-2.8 oz	0.025-0.044	45.7-80	PYRETHROIDS (Baythroid, Brigade, Tombstone, Prolex, Declare, Karate, Warrior, Mustang Maxx, Hero) are not effective against beet armyworm. DO NOT USE.	45
	flubendiamide Belt 4 SC	2-3 oz	0.0625-0.0937	42.7-64	DO NOT apply more than 6 oz of Belt per acre per season.	14
	gamma-cyhalothrin 1.25 (R) Prolex/Declare CS	1.28-1.54 oz	0.0125-0.015	83-100		45
	lambda-cyhalothrin (R) Warrior II 2.08 CS <i>(See Generic Insecticides)</i>	1.6-1.92 oz	0.025-0.03	69-83		30
	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
	indoxacarb Steward 1.25 SC	4.6-11.3 oz	0.045-0.11	11.3-27.8		21
	methomyl (R) Lannate 2.4 LV	1-1.5 pt	0.3-0.45	5.3-8		14
	methoxyfenozide Intrepid 2 F	4-8 oz	0.0625-0.125	16-32		14
	methoxyfenozide + spinetoram Intrepid Edge 3F	4-6.4	0.094-0.15	20-32	DO NOT make more than 4 applications per year.	28
	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
	thiodicarb (R) Larvin 3.2 F	0.6-1.9 pt	0.25-0.75	4.3-12.8		28
	zeta-cypermethrin 0.8 EC (R) Mustang Maxx	3.2-4.0 oz	0.02-0.025	32-40		21
	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

**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>	
<b>DEFOLIATORS and POD FEEDERS</b>							
<b>Corn Earworm and Tobacco Budworm</b>  Before bloom, treat when 40% defoliation occurs. After bloom, use threshold table on page 109.	<b><u>Synthetic Pyrethroids</u></b>						
	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	
	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	
	cyfluthrin (R) Tombstone 2 EC <i>(See Generic Insecticides)</i>	1.6-2.8 oz	0.025-0.044	45.7-80	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.	45	
	gamma-cyhalothrin 1.25 (R) Prolex/Declare CS	0.77-1.28 oz	0.0075-0.0125	100-167		45	
	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	
	esfenvalerate (R) Asana XL 0.66 EC <i>(See Generic Insecticides)</i>	5.8-9.6 oz	0.03-0.05	13-22		21	
	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	
	zeta-cypermethrin 0.8 EC (R) Mustang Maxx	2.8-4.0 oz	0.0175-0.025	32-45.7		21	
	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	
	<b><u>Carbamates</u></b>						
	carbaryl Sevin XLR or 4F	1-3 pt	0.5-1.5	2.7-8		21	
	methomyl (R) Lannate 2.4 LV	0.75-1.5 pt	0.225-0.45	5.3-10.7		14	
	thiodicarb (R) Larvin 3.2 F	10-16 oz	0.25-0.4	8-12.8		28	
	<b><u>Other Chemistry</u></b>						
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.	0		
chlorantraniliprole Prevathon 0.43	14-20 oz	0.047-0.067	6.4-9.14	Make no more than 4 applications per year.	1		

**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>
<b>Corn Earworm and Tobacco Budworm</b>	<b>Other Chemistry</b>					
	flubendiamide Belt 4 SC	2-3 oz	0.0625-0.0937	42.7-64	DO NOT apply more than 6 oz of Belt per acre per season.	14
	indoxacarb Steward 1.25 SC	5.6-11.3 oz	0.055-0.11	11.5-22.8		21
	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
	methoxyfenozide + spinetoram Intrepid Edge 3F	4-6.4	0.094-0.15	20-32	DO NOT make more than 4 applications per year.	28
	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
<b>ROOT FEEDER</b> <b>Grape Colaspis</b>	chlothianidin NipsIt Inside 5 FS	1.28 oz/100 lb seed			A seed treatment can be beneficial in areas where grape colaspis has historically been a problem.	
	imidacloprid Gaucho 600	1.6 oz/100 lb seed				
	Access 5 FS	1.6 oz/100 lb seed				
	Senator 600	1.6 oz/100 lb seed				
	thiamethoxam Cruiser 5 FS	1.28 oz/100 lb seed				
	Warden CX	3.2 oz/100 lb seed				
<b>POD FEEDERS</b> <b>Green Stink Bug,</b> <b>Southern Green</b> <b>Stink Bug, Red</b> <b>Shouldered</b> <b>Stink Bug</b>	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
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.	beta-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 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
	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
	cyfluthrin (R) Tombstone 2 EC (See Generic Insecticides)	1.6-2.8 oz	0.025-0.044	45.7-80		45
	esfenvalerate (R) Asana XL 0.66 EC (See Generic Insecticides)	5.8-9.6 oz	0.03-0.05	13-22		21

**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>
<b>POD FEEDERS</b>						
<b>Green Stink Bug, Southern Green Stink Bug, Red Shouldered Stink Bug</b> (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 1.25 (R) Prolex/Declare CS	1.28-1.54 oz	0.0125-0.015	83-100		45
	lambda-cyhalothrin (R) Warrior II 2.08 CS (See Generic Insecticides)	1.6-1.92 oz	0.025-0.03	67-80		30
	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
	zeta-cypermethrin 0.8 EC (R) Mustang Maxx	3.2-4.0 oz	0.02-0.025	32-40		21
	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
<b>Brown Stink Bug</b> 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
	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
	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
	lambda-cyhalothrin + thiamethoxam (R) Endigo ZC 2.06	4.0-4.5 oz	0.064-0.07	28.4-32		30
<b>Redbanded Stink Bug</b> Treat when an average of 4 stink bugs per 25 sweeps.	acephate (R) Orthene/Acephate 90 S Orthene/Acephate 97 S	1.1 lb 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
	bifenthrin (R) Brigade 2 EC (See Generic Insecticides)	6.4 oz	0.1	20	DO NOT apply more than 0.3 lb ai of Brigade per season. DO NOT apply again for 30 days.	18
	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

**SOYBEAN INSECT CONTROL**

<b>Insect</b>	<b>Insecticide</b>	<b>Formulation/Acre</b>	<b>Lb ai/Acre</b>	<b>Acres/Gallon</b>	<b>Application/Comments</b>	<b>Minimum Days From Last Application to Harvest</b>	
<b>Redbanded Stink Bug</b>	lambda-cyhalothrin + chlorpyrifos (R) Cobalt Advanced	24-38 oz	0.5-0.76	3.4-5.3	DO NOT tank mix Cobalt Advanced with sodium chlorate. Tank mixing with sodium chlorate may result in explosion of fire.	30	
	lambda-cyhalothrin + thiamethoxam (R) Endigo ZC 2.06	4.0-4.5 oz	0.064-0.07	28.4-32		30	
	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7		21	
	<b>Tank Mix Options With Bifenthrin</b>						
	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	
	clothianidin Belay 2.13	3 oz	0.05	42.7		21	
	imidacloprid (R) Imidacloprid 4F Imidacloprid 2F	1.5 oz 3 oz	0.047	85.3 42.7		21 21	
<b>Multiple Species</b>	beta-cyfluthrin + imidacloprid (R) Leverage 360	2.8 oz	0.066	45.7	For control of multiple pests including but not limited to bollworm, bean leaf beetle, aphids, grasshoppers, threecornered alfalfa hopper, saltmarsh caterpillar, blister beetle, cabbage looper, velvetbean caterpillar, green cloverworm, yellowstriped armyworm, thrips, kudzu bug and stink bugs.	21	
	lambda-cyhalothrin + chlorpyrifos (R) Cobalt Advanced	6-38 oz	0.012-0.76	3.4-21.3		30	
	lambda-cyhalothrin + thiamethoxam (R) Endigo ZC 2.06	2.5-4.5 oz	0.04-0.07	28.4-51.2		30	
	acetamiprid + bifenthrin (R) Justice 1.8 EC	2.5-5.0 oz	0.035-0.07	25.6-51.2		DO NOT apply again for 30 days.	30
	zeta-cypermethrin + bifenthrin + imidacloprid (R) Triple Crown 2.25	3.5-4.8 oz	0.061-0.084	33-36.6		DO NOT apply again for 30 days.	21
	lamda-cyhalothrin + chlorantraniliprole (R) Besiege 1.252	5.0-10.0 oz	0.049-0.098	12.8-25.6		DO NOT graze or feed hay to livestock. DO NOT exceed 20 fl oz per acre per season.	30
	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