

Field Crops

Department of Entomology

SOYBEAN INSECT CONTROL RECOMMENDATIONS - 2006

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

Pest	Material	Amount Per Acre & Formulation*	Pre-Harvest Interval (Days)	Treatment Guideline**
Bean Leaf Beetle	carbaryl (Sevin) ²	2/3 lb. 80WSP 1 - 2 pt. 4F .5 - 1 qt. XLR+	21 21 21	LEAF FEEDING, use defoliation guide on page 7. POD FEEDING, when approximately 10% of the pods are damaged, pods are green, and beetles are actively feeding
	chlorpyrifos (Lorsban) ^{1,2}	1 pt. 4E	28	
	cyfluthrin (Baythroid 2) ^{1,2}	1.6 - 2.8 fl. oz. 2EC	45	
	deltamethrin (DECIS) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	
	dimethoate (Dimethoate) ²	1 pt. 400, 4EC	21	
	esfenvalerate (Asana XL) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	45	
	methyl parathion (PennCap-M) ^{1,2}	2 - 3 pt. 2FM	20	
	permethrin (Ambush) ^{1,2} (Pounce) ^{1,2}	3.2 - 6.4 fl. oz. 2EC 2 - 4 fl. oz. 3.2EC	60 60	
zeta-cypermethrin (Mustang Max) ^{1,2}	2.8 - 4.0 fl. oz. 0.8EW	21		
Blister Beetle complex	carbaryl (Sevin) ²	2/3 - 1 1/4 lb. 80WSP 1 - 2 pt. 4F .5 - 1 qt. XLR+	21 21 21	Prebloom - when greater than 40% defoliation. Blooming to pod fill - when greater than 15% defoliation. Full pod to harvest - when greater than 25% defoliation (more precise thresholds on page 7).
	cyfluthrin (Baythroid 2) ^{1,2}	1.6 - 2.8 fl. oz. 2EC	45	
	gamma-cyhalothrin (Proaxis) ^{1,2}	3.2 - 3.8 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	3.2 - 3.8 fl. oz. 1CS	45	

Pest	Material	Amount Per Acre & Formulation*	Pre-Harvest Interval (Days)	Treatment Guideline**
Blister Beetle complex (con't.)	zeta-cypermethrin (Mustang Max) ^{1,2}	2.8 - 4.0 fl. oz. 0.8EW	21	
Cutworm complex	chlorpyrifos (Lorsban) ^{1,2}	1 - 2 pt. 4E	28	When cutworms are numerous and actively feeding, and stand counts are nearing the lower end of the scale in regard to plant population necessary to achieve good yields.
	cyfluthrin (Baythroid 2) ^{1,2}	0.8 - 1.6 fl. oz. 2EC	45	
	deltamethrin (DECIS) ^{1,2}	1.0 - 1.5 fl. oz. 1.5EC	21	
	esfenvalerate (Asana XL) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	45	
	permethrin (Ambush) ^{1,2} (Pounce) ^{1,2}	3.2 - 6.4 fl. oz. 2EC 2 - 4 fl. oz. 3.2EC	60 60	
	zeta-cypermethrin (Mustang Max) ^{1,2}	1.3 - 4.0 fl. oz. 0.8EW	21	
Grass-hopper complex	carbofuran (Furadan) ^{1,2}	1/2 pt. 4F	21	LEAF FEEDING, Prebloom - when greater than 40% defoliation. Blooming to pod fill - when greater than 15% defoliation. Full pod to harvest - when greater than 25% defoliation (more precise threshold on page 7). USUALLY ONLY MARGINAL ROWS REQUIRE TREATMENT POD FEEDING, when approximately 10% of the pods are damaged and grasshoppers are still feeding.
	chlorpyrifos (Lorsban) ^{1,2}	1 pt. 4E	28	
	cyfluthrin (Baythroid 2) ^{1,2}	2.1 - 2.8 fl. oz. 2EC	45	
	deltamethrin (DECIS) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	
	dimethoate (Dimethoate) ²	1 pt. 400, 4EC	21	
	esfenvalerate (Asana XL) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	3.2 - 3.8 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	3.2 - 3.8 fl. oz. 1CS	45	
	methyl parathion (PennCap-M) ^{1,2}	2-3 pt. 2FM	20	
	zeta-cypermethrin (Mustang Max) ^{1,2}	3.2 - 4.0 fl. oz. 0.8EW	21	
Green Clover-worm	<i>Bacillus thuringiensis</i> var. <i>kurstaki</i> (several)	Refer to label for specific rate	0	Prebloom-when greater than 40% defoliation. Blooming to pod fill - when greater than 15% defoliation. Full pod

Pest	Material	Amount Per Acre & Formulation*	Pre-Harvest Interval (Days)	Treatment Guideline**
Green Clover-worm (con't.)	carbaryl (Sevin) ²	2/3 lb. 80WSP 1 - 2 pt. 4F .5 - 1 qt. XLR+	21 21 21	to harvest - when greater than 25% defoliation (more precise threshold on page 7).
	chlorpyrifos (Lorsban) ^{1,2}	1 pt. 4E	28	
	cyfluthrin (Baythroid 2) ^{1,2} deltamethrin (DECIS) ^{1,2}	1.6 - 2.8 fl. oz. 2EC 1.0 - 1.5 fl. oz. 1.5EC	45 21	
	esfenvalerate (Asana XL) ^{1,2}	2.9 - 5.8 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	45	
	methyl parathion (Penncap-M) ^{1,2}	2 - 3 pt. 2FM	20	
	permethrin (Ambush) ^{1,2} (Pounce) ^{1,2}	3.2 - 6.4 fl. oz. 2EC 2 - 4 fl. oz. 3.2EC	60 60	
	spinosad (Tracer) ²	1 - 2 fl. oz. 4SC	28	
	zeta-cypermethrin (Mustang Max) ^{1,2}	2.8 - 4.0 fl. oz. 0.8EW	21	
Japanese Beetle	carbaryl (Sevin) ²	2/3 - 1 lb. 80WSP 1 - 2 pt. 4F .5 - 1 qt. XLR+	21 21 21	Prebloom - when greater than 40% defoliation. Blooming to pod fill - when greater than 15% defoliation. Full pod to harvest - when greater than 25% defoliation (more precise thresholds on page 7).
	cyfluthrin (Baythroid 2) ^{1,2}	1.6 - 2.8 fl. oz. 2EC	45	
	deltamethrin (DECIS) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	
	esfenvalerate (Asana XL) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	3.2 - 3.8 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	3.2 - 3.8 fl. oz. 1CS	45	
	methyl parathion (Penncap-M) ^{1,2}	3 - 4 pt. 2FM	20	
	permethrin (Ambush) ¹ (Pounce) ¹	6.4 - 12.8 fl. oz. 2EC 2 - 4 fl. oz. 3.2EC	60 60	
	zeta-cypermethrin (Mustang Max) ^{1,2}	2.8 - 4.0 fl. oz. 0.8EW	21	

Pest	Material	Amount Per Acre & Formulation*	Pre-Harvest Interval (Days)	Treatment Guideline**
Mexican Bean Beetle	carbaryl (Sevin) ²	2/3 - 1 lb. 80WSP	21	Prebloom - when greater than 40% defoliation. Blooming to pod fill - when greater than 15% defoliation. Full pod to harvest - when greater than 25% defoliation (more precise thresholds on page 7).
		1 - 2 pt. 4F	21	
	chlorpyrifos (Lorsban) ^{1,2}	.5 - 1 qt. XLR+	21	
		1 pt. 4E	28	
	cyfluthrin (Baythroid 2) ^{1,2}	1.6 - 2.8 fl. oz. 2EC	45	
	deltamethrin (DECIS) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	
	dimethoate (Dimethoate) ²	1 pt. 400, 4EC	21	
	esfenvalerate (Asana XL) ^{1,2}	2.9 - 5.8 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	45	
	methyl parathion (PennCap-M) ^{1,2}	2 - 3 pt. 2FM	20	
permethrin (Ambush) ^{1,2}	3.2 - 6.4 fl. oz. 2EC	60		
	2 - 4 fl. oz. 3.2EC	60		
zeta-cypermethrin (Mustang Max) ^{1,2}	2.8 - 4.0 fl. oz. 0.8EW	21		
Painted Lady or Thistle Caterpillar	carbaryl (Sevin) ²	1-7/8 lb. 80WSP	21	Prebloom - when greater than 40% defoliation. Blooming to pod fill - when greater than 15% defoliation. Full pod to harvest when greater than 25% defoliation (more precise thresholds on page 7).
		1 1/2 qt. 4F	21	
		1.5 qt. XLR+	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45	
lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	45		
zeta-cypermethrin (Mustang Max) ^{1,2}	1.3 - 4.0 fl. oz. 0.8EW	21		
Potato Leafhopper	carbaryl (Sevin) ²	1 1/4 lb. 80WSP	21	Early vegetative stages - 2 leafhoppers per plant. Flowering - 1 leafhopper per trifoliolate. Pod development - 2 leafhoppers per trifoliolate.
		1 qt. 4F	21	
		1 qt. XLR+	21	
	cyfluthrin (Baythroid 2) ^{1,2}	0.8 - 1.6 fl. oz. 2EC	45	
	deltamethrin (DECIS) ^{1,2}	1.0 - 1.5 fl. oz. 1.5EC	21	
	dimethoate (Dimethoate) ²	1 pt. 400, 4EC	21	
esfenvalerate (Asana XL) ^{1,2}	2.9 - 5.8 fl. oz. 0.66EC	21		
gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45		

Pest	Material	Amount Per Acre & Formulation*	Pre-Harvest Interval (Days)	Treatment Guideline**
Potato leaf hopper (con't.)	lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	45	
	methyl parathion (PennCap-M) ^{1,2}	2-3 pt. 2FM	20	
	permethrin (Ambush) ^{1,2} (Pounce) ^{1,2}	3.2 - 6.4 fl. oz. 2EC 2 - 4 fl. oz. 3.2EC	60 60	
	zeta-cypermethrin (Mustang Max) ^{1,2}	2.8 - 4.0 fl. oz. 0.8EW	21	
Seedcorn Maggot	imidacloprid (Gaucho)	Pre-treated seed		Recommended if planting early into heavily manured or residue covered field. No rescue treatment available.
	permethrin (Kernel Guard Supreme)	See label		
	thiamethoxam (Cruiser)	Pre-treated seed		
Soybean Aphid	chlorpyrifos (Lorsban) ^{1,2}	2 pt. 4E	28	If an average of 250 aphids/plant or more are found on late vegetative to R5 growth stage soybean, (see soybean growth stages on page 7) control may be necessary. Aphid numbers/plant may need to be lowered if soybean fields are under moisture stress.
	cyfluthrin (Baythroid 2) ^{1,2}	2 - 2.8 fl. oz. 3EC	45	
	deltamethrin (DECIS) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	
	esfenvalerate (AsanaXL) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	45	
	methyl parathion (PennCap-M) ^{1,2}	3 pt. 2FM	20	
	zeta-cypermethrin (Mustang Max) ^{1,2}	2.8 - 4.0 fl. oz. 0.8EW	21	
Soybean Thrips	carbaryl (Sevin) ²	11/4 lb. 80WSP	21	Treat if over 75% of the sampled trifoliolates are mottled with crinkled leaves and there are over 8 thrips per leaf.
		1 qt. 4F	21	
		1 qt. XLR+	21	
	cyfluthrin (Baythroid 2) ^{1,2}	0.8 - 1.6 fl. oz. 2EC	45	
	gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45	
lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1CS	45		
methyl parathion (PennCap-M) ^{1,2}	2 - 3 pt. 2FM	20		
Stink Bugs	chlorpyrifos (Lorsban) ^{1,2}	2 pt. 4E	28	Treat if there are 40 stink bugs per 100 sweeps (15" diameter sweep net) and pods are green and stink bugs are present.
	cyfluthrin (Baythroid 2) ^{1,2}	0.8 - 1.6 fl. oz. 2EC	45	

Pest	Material	Amount Per Acre & Formulation*	Pre-Harvest Interval (Days)	Treatment Guideline**
Stink Bugs (con't.)	deltamethrin (DECIS) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	
	esfenvalerate (Asana XL) ^{1,2}	5.8 - 9.6 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	3.2 - 3.8 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	3.2 - 3.8 fl. oz. 1CS	45	
	methyl parathion (PennCap-M) ^{1,2}	1 - 3 pt. 2FM	20	
	zeta-cypermethrin (Mustang Max) ^{1,2}	3.2 - 4.0 fl. oz. 0.8EW	21	
Two-spotted Spider Mite	chlorpyrifos (Lorsban) ^{1,2}	1 pt. 4E	28	If leaf discoloration is apparent, mites are positively identified, and hot, dry conditions are expected to persist.
	dimethoate (Dimethoate) ²	1 pt. 400, 4EC	21	
Wireworm	imidacloprid (Gaucho)	Pre-treated seed		Recommended if planting early into field with a history of wireworm problems. No rescue treatment available.
	permethrin (Kernel Guard Supreme)	See label		
	thiamethoxam (Cruiser)	Pre-treated seed		
Woolly-bear or Saltmarsh Caterpillar	carbaryl (Sevin) ²	1 7/8 lb. 80 WSP	21	Prebloom - when greater than 40% defoliation. Blooming to pod fill - when greater than 15% defoliation. Full pod to harvest - when greater than 25% defoliation (more precise thresholds on page 7).
		1 1/2 qt. 4F	21	
		1.5 qt. XLR+	21	
	chlorpyrifos (Lorsban) ^{1,2}	1 - 2 pt. 4E	28	
	cyfluthrin (Baythroid 2) ^{1,2}	0.8 - 1.6 fl. oz. 2EC	45	
	deltamethrin (DECIS) ^{1,2}	1.5 - 1.9 fl. oz. 1.5EC	21	
	esfenvalerate (Asana XL) ^{1,2}	2.9 - 5.8 fl. oz. 0.66EC	21	
	gamma-cyhalothrin (Proaxis) ^{1,2}	1.9 - 3.2 fl. oz. 0.5EC	45	
	lambda-cyhalothrin (Warrior) ^{1,2}	1.9 - 3.2 fl. oz. 1EC	45	
	permethrin (Ambush) ^{1,2} (Pounce) ^{1,2}	3.2 - 6.4 fl. oz. 2EC	60	
		2 - 4 fl. oz. 3.2EC	60	
spinosad (Tracer) ²	1 - 2 fl. oz. 4SC	28		
zeta-cypermethrin (Mustang Max) ^{1,2}	2.8 - 4.0 fl. oz. 0.8EW	21		

* CS=capsulated suspension; E or EC=emulsifiable concentrate; EW=emulsifies in water; F=flowable; FM=flowable microencapsulated; SC=soluble concentrate; SP=soluble powder; WSP=wettable sprayable powder; XLR = extra long residual.

¹ Restricted use Insecticide

² Bee Caution

TREATMENT THRESHOLDS FOR INSECT DEFOLIATED SOYBEANS

PERCENTAGE DEFOLIATION*										
Soybean growth stage	Market price - \$5/bu Cost of treatment					Market price - \$6/bu Cost of treatment				
	\$6/A	\$8/A	\$10/A	\$12/A	\$14/A	\$6/A	\$8/A	\$10/A	\$12/A	\$14/A
V1-2	40-50	45-55	50-60	45-55	55-65	35-45	40-50	45-55	45-55	50-60
V3-4	40-50	45-55	50-60	55-65	55-65	40-50	45-55	45-55	50-60	50-60
V5-6	45-55	45-55	50-60	55-65	55-65	40-50	45-55	50-60	50-60	50-60
V7+	40-50	40-50	45-55	50-60	55-65	35-45	40-50	40-50	45-55	50-60
R1	25-35	30-40	35-45	40-50	40-50	25-35	25-35	30-40	30-40	35-45
R2	20-30	25-35	30-40	35-45	35-45	20-30	25-35	25-35	25-35	30-40
R3	15-25	20-30	20-30	25-35	25-35	10-20	15-25	20-30	20-30	20-30
R4	10-20	15-25	15-25	20-30	20-30	10-20	10-20	15-25	15-25	20-30
R5	15-25	15-25	20-30	20-30	25-35	10-20	15-25	15-25	15-25	20-30
R6	15-25	20-30	25-35	25-35	30-40	10-20	20-30	25-35	25-35	30-40

PERCENTAGE DEFOLIATION*										
Soybean growth stage	Market price - \$7/bu Cost of treatment					Market price - \$8/bu Cost of treatment				
	\$6/A	\$8/A	\$10/A	\$12/A	\$14/A	\$6/A	\$8/A	\$10/A	\$12/A	\$14/A
V1-2	35-45	40-50	40-50	40-50	45-55	30-40	35-45	40-50	40-50	45-55
V3-4	35-45	40-50	45-55	45-55	45-55	35-45	40-50	40-50	40-50	45-55
V5-6	40-50	45-55	45-55	45-55	50-60	40-50	40-50	45-55	45-55	45-55
V7+	35-45	35-45	40-50	40-50	45-55	35-45	35-45	40-50	40-50	45-55
R1	20-30	25-35	30-40	30-40	30-40	20-30	25-35	25-35	30-40	30-40
R2	15-25	20-30	25-35	25-35	25-35	15-25	20-30	20-30	25-35	25-35
R3	10-20	15-25	15-25	15-25	20-30	10-20	15-25	15-25	15-25	20-30
R4	10-20	10-20	10-20	15-25	15-25	5-15	10-20	10-20	15-25	15-25
R5	10-20	10-20	15-25	15-25	20-30	10-20	10-20	15-25	15-25	15-25
R6	15-25	15-25	20-30	20-30	25-35	10-20	15-25	20-30	20-30	20-30

* The defoliation level needed before a control is applied will vary somewhat depending on insect numbers and stage of development, growing conditions, variety grown, expected yield, economic factors, and plant population counts. All of these factors must be taken into consideration when making control decisions. The defoliation figures are shown as a range in each category. This range is included so that limiting factors can be considered. When few limiting factors are present, the control decision value will normally be at the higher end of the scale. Under some circumstances or conditions management guidelines given above may need to be adjusted from what is given. Based on 50 bushel per acre yield.

STAGE OF DEVELOPMENT DESCRIPTIONS FOR SOYBEANS^{1, 2}

Vegetative Stages

Reproductive Stages

The vegetative stages (node stages) following VC are defined and numbered according to the uppermost fully developed leaf node. A fully developed leaf node is one that has a leaf above it with unrolled or unfolded leaflets. In other words, the leaflet edges are no longer touching.

Stage Description

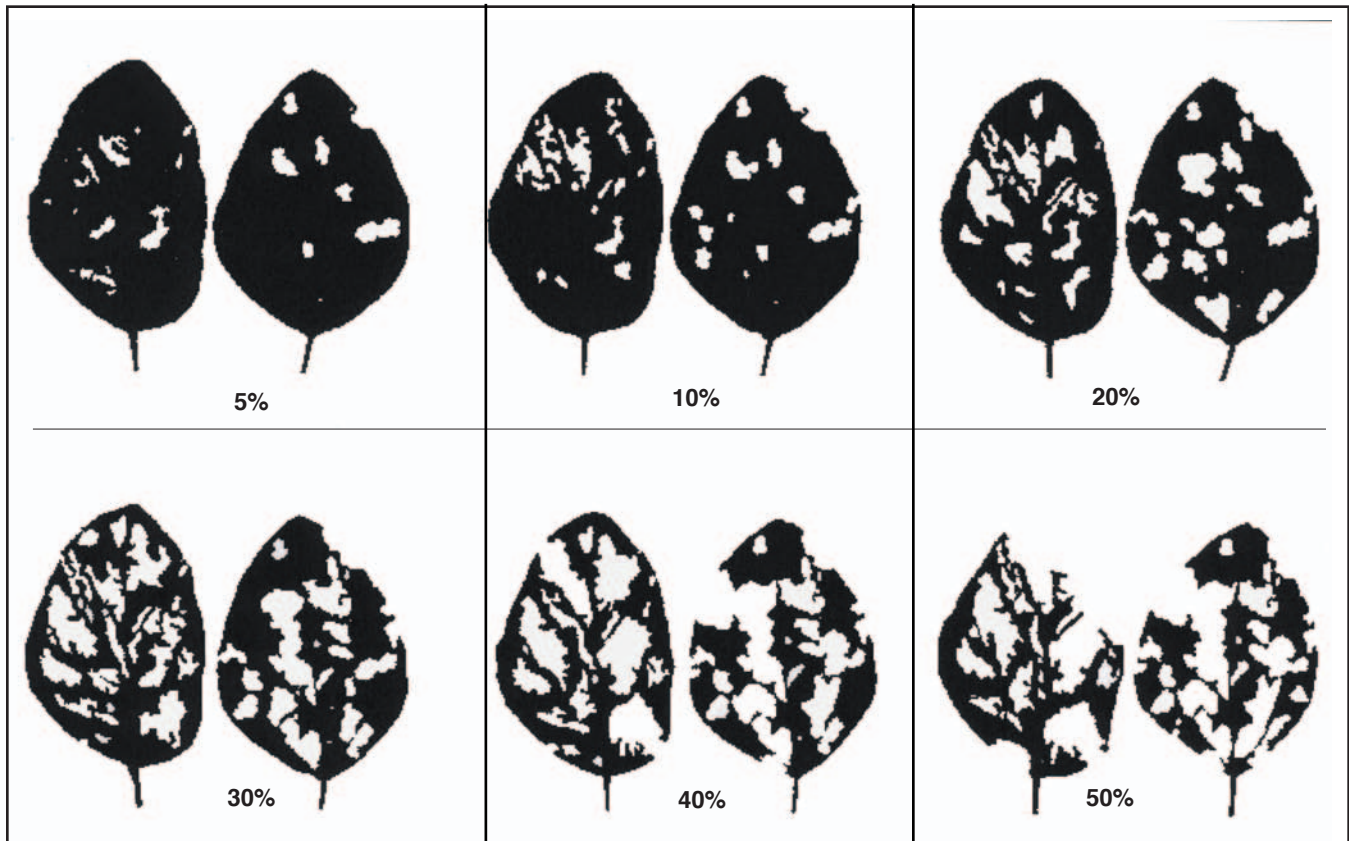
VE	Emergence.
VC	Cotyledon stage.
V1	leaflets on the 1st (unifoliolate) and 2nd node are unrolled.
V2	Leaflets on the 1st (unifoliolate) through the 3rd node are unrolled.
V3	Leaflets on the 1st (unifoliolate) through the 4th node are unrolled.
V(n)	nth-node.

Stage Description

R1	One open flower at any node on the main stem.
R2	Open flower at one of the two uppermost nodes on the main stem with a fully developed leaf.
R3	Pod 3/16 inch (5 mm) long at one of the four uppermost nodes on the main stem with a fully developed leaf.
R4	Pod 3/4 inch (2 cm) long at one of the four uppermost nodes on the main stem with a fully developed leaf.
R5	Seed 1/8 inch (3 mm) long in the pod at one of the four uppermost nodes on the main stem with a fully developed leaf.
R6	Pod containing a green seed that fills the cavity at one of the four uppermost nodes on the main stem with a fully developed leaf.
R7	One normal pod on the main stem that has reached its mature pod color (yellow).
R8	95% of pods have reached mature pod color. (5-10 days of drying weather required after R8 before beans have less than 15% moisture.)

¹ Only the main stem of a single plant is considered in determining its stage of growth; branches are not examined. To estimate the growth stage of an entire soybean field, it is necessary to average the growth stage values determined for the single plants examined.

² From "How A Soybean Plant Develops," Special Report No. 53, Iowa State University, Cooperative Extension Service.

SOYBEAN DEFOLIATION LEVELSRagged Holes without veins¹ (caterpillars) compared to Round Holes (bean leaf beetle)

¹ If ragged holes with some veins left intact (Mexican bean beetle or Japanese beetle), use this chart but count the veins and dead tissue surrounding the veins as defoliated.

Bean Leaf Beetle: *Cerotoma trifurcata* (Forster)
 Blister Beetles: *Epicauta* spp.
 Cutworms: Black, *Agrotis ipsilon* (Hufnagel)
 Dingy, *Feltia ducens* Walker
 Glassy, *Crymodes devastator* (Brace)
 Sandhill, *Euxoa detersa* (Walker)
 Grasshoppers: *Melanoplus* spp.
 Green Cloverworm: *Plathypena scabra* (Fabricius)
 Japanese Beetle: *Popillia japonica* Newman
 Mexican Bean Beetle: *Epilachna varivestis* Mulsant

Painted Lady: *Vanessa cardui* (Linnaeus)
 Potato Leafhopper: *Empoasca fabae* (Harris)
 Seedcorn Maggot: *Delia platura* (Meigen)
 Soybean Aphid: *Aphis glycines* (Matsumura)
 Soybean Thrips: *Sericothrips variabilis*
 Green Stink Bug: *Acrosternum hilare* (Say)
 Twospotted Spider Mite: *Tetranychus urticae* Koch
 Woollybear (Saltmarsh Caterpillar): *Estigmene acrea* (Drury)

****Visit our Field Crops IPM Web Page at: <<http://www.entm.purdue.edu/fieldcropsipm/>>**

**Also, see our Field Crop publications at:
 <<http://www.entm.purdue.edu/entomology/ext/targets/e-series/fieldcro.htm>>**

READ AND FOLLOW ALL LABEL INSTRUCTIONS. THIS INCLUDES DIRECTIONS FOR USE, PRECAUTIONARY STATEMENTS (HAZARDS TO HUMANS, DOMESTIC ANIMALS, AND ENDANGERED SPECIES), ENVIRONMENTAL HAZARDS, RATES OF APPLICATION, NUMBER OF APPLICATIONS, REENTRY INTERVALS, HARVEST RESTRICTIONS, STORAGE AND DISPOSAL, AND ANY SPECIFIC WARNINGS AND/OR PRECAUTIONS FOR SAFE HANDLING OF THE PESTICIDE.

Revised 1/2006

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