



Insect Management

Insects Impacting Drill-Seeded Rice and General Growth Stages Affected

Seedling Emergence	Three-Leaf Vegetative Growth	Tillering	Panicle Initiation	Panicle Emergence (Heading)	Grain Development	Maturity (Harvest)
	Grape Colaspis					
	Chinch Bug, True Armyworm					
	Rice Water Weevil Adults					
	Rice Water Weevil Larvae				Fall Armyworm	
					Rice Stink Bug	
				Billbug		
				Rice Stalk Borer		

Insects Impacting Water-Seeded Rice and Growth Stages Affected

Flood	Drain	Permanent Flood	Seedling Emergence	1-Leaf	2-Leaf	3-Leaf	Tillering	Panicle Initiation	Panicle Emergence (Heading)	Grain Development	Maturity (Harvest)
			Rice Seed Midge -								
								Rice Water Weevil Adults			
								Rice Water Weevil Larvae -			
									Fall Armyworm		
										Rice Stink Bug -	
									Billbug		
										Rice Stalk Borer -	

Rice Insecticide Performance Ratings

	Restrict Use	Chinch Bug	Fall Armyworm	True Armyworm	Short Horned Grasshopper	Rice Stink Bug		Rice Water Weevil			Rice Stalk Borer	Aphids (Greenbug, Bird-Cherry, Oat)	Grape Colaspis
						Adults	Eggs and Immatures	Adults	Larvae	Eggs			
Cruiser	X	9		2				6	7			8	
Declare/Prolex	X	7	8	8	7	8	8	9			8		
Dermacor X-100	X	1	8	8					8	8		6	
Dimilin 2 L	X							0	8	7		5	
Karate Z ¹	X	7	8	8	7	8	8	9			8		
Malathion		1	2	5	6	6	5	0			4		
Methyl Parathion	X	6	6	8	6	6	6	0			7		
Mustang Maxx	X	7	8	8	7	8	8	9			8		
NipsIt INSIDE	X	6		2				6	7			8	
Pennacap-M		6	6	8	6	7	6	0			7		
Sevin		6	6	5	6	8	5				1		
Tenchu	X					8	8						

Read and follow all label directions when using these products.

¹Includes other products containing lambda-cyhalothrin.

Rice Water Weevil



Rice water weevil adult.



Leaf scars from adult rice water weevil feeding.



Rice water weevil larva.



Leaf scars from adult rice water weevil feeding.



Rice water weevil egg mass.

Insecticides Labeled for Rice Water Weevil Control

Stage	Damage	Timing of Treatment	Treatment	A.I./Acre ¹	Product/Acre	PHI ²
adults	Prevent adults from laying eggs	<p>Drill-Seeded: > 10 days after flood when adults present.</p> <p>Water-Seeded: > 7 days after flood when adults present; second application 5-7 days later if needed.</p>	<p>lambda-cyhalothrin³ Karate Z 2.08 CS</p>	0.025-0.04 lb	1.6-2.56 fl oz	21 d
			<p>zeta-cypermethrin Mustang Maxx 0.8 EC</p>	0.02-0.025 lb	2.64-4.0 fl oz	14 d
larvae	Prevent larval damage to roots	Apply with PRE herbicide after pegging or with early POST herbicide at 1- to 2-leaf rice when adults are moving into water-seeded rice.	<p>gamma-cyhalothrin Proaxis 0.5 CS Prolex 1.25 CS Declare 1.25CS</p>	0.0125-0.02 lb	3.2-5.12 fl oz 1.28-2.05 fl oz	14 d
			<p>zeta-cypermethrin Mustang Maxx 0.8 EC</p>	0.02-0.025 lb	2.64-4.0 fl oz	14 d

eggs	Prevent eggs from hatching	Drill-Seeded: > 10 days after flood when adults present. Water-Seeded: > 7 days after flood when adults present; second application 5-7 days later if needed.	diflubenzuron Dimilin 2L	0.125-0.25 lb	12-16 fl oz
------	----------------------------	--	------------------------------------	---------------	-------------

Read and follow all label directions when using these products.

1 Active ingredient per acre.

2 Pre-Harvest Interval (days).

3 Many formulations of lambda-cyhalothrin; read and follow label for appropriate rates. -

Rice Stink Bug



Adult rice stink bugs mating.



Rice stink bug adult.



Just-hatched rice stink bug nymphs clustered near egg shells.



Rice stink bug nymph.



Rice stink bug feeding scars on a rice kernel.

Insecticides Labeled for Rice Stink Bug Control

Damage	Timing of Treatment	Treatment	A.I./Acre ¹	Product/Acre	PHI ²
nymphs and adults suck juices from the kernel, causing blanks and/or discolored rice kernels	5 bugs per 10 sweeps at heading; 10 bugs per 10 sweeps 2 weeks after heading. Scout in morning for best results.	lambda-cyhalothrin ³ Karate Z 2.08 CS	0.025-0.04 lb	1.6-2.56 fl oz	21 d
		zeta-cypermethrin Mustang Maxx 0.8 EC	0.02-0.025 lb	2.64-4.0 fl oz	14 d
		gamma-cyhalothrin Proaxis 0.5 CS Prolex / Declare 1.25 CS	0.0125-0.02 lb	3.2-5.12 fl oz 1.28-2.05 fl oz	14 d
		malathion Malathion 57% EC Cythion 5EC	0.3-0.6 lb	0.5-1.0 pt 1.25-1.87 lb	7 d
		carbaryl Sevin 80S, 80WSP Sevin 4L, 4F, XLR	1.0-1.5 lb	2-3 pt 0.5-1.0 pt	14 d
		methyl parathion Methyl 4 EC / Pennncap M	0.5 lb	2 pt	15 d

Read and follow all label directions when using these products.

¹Active ingredient per acre.

²Pre-Harvest Interval (days).

³Many formulations of lambda-cyhalothrin; read and follow label for appropriate rates.

Grape Colaspis



Adult grape colaspis beetle.



Grape colaspis larvae (Lespedeza worm).



Damage by grape colaspis larvae on stem between seed and base of plant (right) compared to normal (left).

Insecticides Labeled for Grape Colaspis Control

Type of Damage	Treatment Timing	Treatment ¹	Product/Acre
Reduce plant stand in drill-seeded rice	Pre-emergence to 1- to 2-leaf rice; flush within 10 days after application	Mustang Maxx 0.8 EC	4 fl oz

¹CAUTION: Insecticides listed for rice insect control may interact with propanil causing severe injury to rice unless timed properly. DO NOT apply malathion or Sevin within 14 days before or after propanil applications. DO NOT apply methyl parathion within 7 days before or after propanil application. If insecticides are necessary, the timeframe suggested cannot be followed; consider herbicide options other than propanil. Many generic lambda-cyhalothrin materials are available; consult individual labels.

See seed treatment control options.

Minor Rice Insects



Nearly fully grown rice stalk borer larva near the bottom of the stem.



Entry hole into stem made by borer larva and whitehead (blank) due to rice stalk borer (or billbug).

Insecticides Labeled for Rice Stalk Borer Control

Type of Damage	Treatment Timing	Treatment ¹	Product/ Acre
Cause deadhearts before heading and whiteheads at heading	Apply at boot stage and/or panicle emergence for prevention of whiteheads	Karate Z	1.6-2.56 fl oz
		2.08 CS	
		Mustang	2.64-4.0 fl oz
		Maxx 0.8 EC	
		Proaxis	3.2-5.12 fl oz
		0.5 CS	
		Prolex	1.28-2.05 fl oz
		1.25 CS	
		Declare	1.28-2.05 fl oz
		1.25 CS	

¹CAUTION: Insecticides listed for rice insect control may interact with propanil causing severe injury to rice unless timed properly. If insecticides are necessary, the timeframe suggested cannot be followed; consider herbicide options other than propanil. Many generic lambda-cyhalothrin materials are available; consult individual labels.



True armyworm larva.



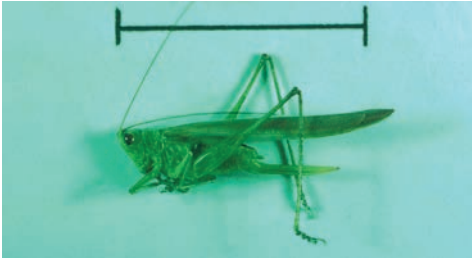
Fall armyworm larvae.



Adult billbug.



Billbug larva in cavity at base of stem.



Long-horned grasshopper.



Short-horned grasshopper.



Adult and nymph greenbugs.

Insecticides Labeled for Control of Other Rice Insects

Insect	Type of Damage	Treatment Timing	Treatment	Product/Acre
Short-Horned Grasshoppers (nymphs and adults)	Leaf feeding and head damage	Treat where damage is evident; border treatment may be beneficial	Sevin 80S, 80WSP Sevin 4L, 4F, XLR Methyl parathion 4EC Malathion Karate Z 2.08 CS Mustang Maxx 0.8 EC Proaxis 0.5 CS Prolex 1.25 CS Declare 1.25 CS	1.25-1.87 lb 2-3 pt 0.5-1.0 pt 1.0-1.5 pt 1.6-2.56 fl oz 2.64-4.0 fl oz 3.2-5.12 fl oz 1.28-2.05 fl oz 1.28-2.05 fl oz
Chinch Bug (nymphs and adults)	Reduce plant stand by sucking sap	When insects are causing stand reduction	Sevin 80S, 80WSP Sevin 4L, 4F, XLR Karate Z 2.08 CS Mustang Maxx 0.8 EC Proaxis 0.5 CS Prolex 1.25 CS Declare 1.25 CS	1.25-1.87 lb 2.0-3.0 pt 1.6-2.56 fl oz 2.64-4.0 fl oz 3.2-5.12 fl oz 1.28-2.05 fl oz 1.28-2.05 fl oz

Fall Armyworm (larvae) ²	Flag leaf and panicle feeding reduces yield	Treat when larvae feeding on flag leaf or panicles	Sevin 80S, 80WSP Sevin 4L, 4F, XLR Karate Z 2.08 CS Mustang Maxx 0.8 EC Proaxis 0.5 CS Prolex 1.25 CS Declare 1.25 CS Methyl parathion 4EC	1.25-1.87 lb 2.0-3.0 pt 1.6-2.56 fl oz. 2.64-4.0 fl oz. 3.2-5.12 fl oz. 1.28-2.05 fl oz 1.28-2.05 fl oz 0.5-1.0 pt
True Armyworm (larvae) ²	Plant feeding may reduce stand or delay growth	When insects are causing stand reduction	Karate Z 2.08 CS Mustang Maxx 0.8 EC Proaxis 0.5 CS Prolex 1.25 CS Declare 1.25 CS Methyl parathion 4EC	1.6-2.56 fl oz 2.64-4.0 fl oz 3.2-5.12 fl oz 1.28-2.05 fl oz 1.28-2.05 fl oz 0.5-1.0 pt
Greenbug (Aphid) (nymphs and adults)	Reduces stand and causes stunting	Treat when 2-3 greenbugs per 1- to 2-leaf rice plant or when plants become yellowed and stunted		

¹CAUTION: Insecticides listed for rice insect control may interact with propanil causing severe injury to rice unless timed properly. DO NOT apply malathion or Sevin within 14 days before or after propanil applications. DO NOT apply methyl parathion within 7 days before or after propanil application. If insecticides are necessary, the timeframe suggested cannot be followed; consider herbicide options other than propanil. Many generic lambda-cyhalothrin materials are available; consult individual labels.

²See seed treatment control options.

Read and follow all label directions when using these products. -