



Bulletin

Extension

Control of Insect Pests of Field Crops

Bulletin 545-07

SMALL GRAINS

Management of insect pests affecting small grains often emphasizes non-chemical control measures. Hessian fly on wheat is controlled primarily by timing of sowing dates and the use of resistant varieties. Cereal leaf beetle on oats usually is controlled by beneficial parasites introduced from the beetle's native land.

However, populations of some pests, especially armyworms, may occur in numbers warranting rescue treatment with an insecticide. Following is a listing of insecticide products labeled for control of the pests that affect small grains. An asterisk (*) indicates use is restricted to certified applicators only.

Pest	Product Name (Common Name)	Amount per Acre	Pre-Harvest Interval (days)	When to Treat
Aphids	Baythroid* (cyfluthrin)	1.8 - 2.4 fl. oz. (2 or XL)	30	Of the various aphid species that occur on small grains, only the greenbug causes damage that may warrant rescue treatment. Rescue treatment is warranted if an average of 50 greenbugs is found per linear ft of row on small plants in the fall or 100 per linear ft of row in the spring.
	Dimethoate (dimethoate)	½ - ¾ pt. (Dimate 4E)	35	
		½ - ¾ pt. 400 or 4EC	35	
		0.75 - 1.13 pt. 2.67	35	
	Cruiser 5FS (thiamethoxam)	0.75 - 1.33 mg a.i./kernel	AP - CST	
	Endosulfan* 3EC (endosulfan)	0.66 - 1 qt.	Do not apply after heads begin to form	
	Lannate* (methomyl)	¼ - ½ lb. SP	7	
		¾ - 1½ pt. LV	7	
	Malathion (malathion)	1½ pt. 5EC	7	
		1½ - 2 pt. 57 EC	7	
		1 - 1¼ pt. 8	7	
	Mustang MAX* (zeta-cypermethrin)	3.20 - 4.0 oz	14	
	Mystic Z* (lambda-cyhalothrin)	1.92 fl. oz.	30	
PennCap-M* (methyl parathion)	2 - 3 pt.	15		
Proaxis* (gamma-cyhalothrin)	3.84 fl. oz.	30		
Prolex* (gamma-cyhalothrin)	1.02 - 1.54 fl. oz.	30		
Silencer* (lambda-cyhalothrin)	3.84 fl. oz.	30		

Pest	Product Name (Common Name)	Amount per Acre	Pre-Harvest Interval (days)	When to Treat
Aphids (cont.)	Taiga Z* (lambdo-cyhalothrin)	3.84 fl. oz.	30	
	Warrior* (lambda-cyhalothrin)	3.84 fl. oz.	30	
Armyworms on Wheat	Baythroid * (cyfluthrin)	1.8 - 2.4 fl. oz. (2 or XL)	30	Rescue treatment is recommended if 6 or more armyworm larvae are found per 1 ft of row or if head cutting occurs. Where larvae are abundant enough - justify action, treatment should be applied when larvae are in their early stage of development.
	Carbaryl (carbaryl)	1 - 1½ qt. 4L	21	
		1¼ - 1⅞ lb. 80S	21	
	Entrust (spinosad)	1 - 2 oz.	21	
	Lannate* (methomyl)	¼ - ½ lb. SP	7	
		¾ - 1½ pt. LV	7	
	Malathion (malathion)	2 pt. 57 EC or 1 - 1¼ pt. 8	7	
	Mustang MAX* (zeta-cypermethrin)	1.76 - 4.0 oz	14	
	Mystic Z* (lambda-cyhalothrin)	1.28 - 1.92 fl. oz.	30	
	Penncap-M* (methyl parathion)	2 - 3 pt.	15	
	Proaxis* (gamma-cyhalothrin)	2.56 - 3.84 fl. oz.	30	
	Prolex* (gamma-cyhalothrin)	1.02 - 1.54 fl. oz.	30	
	Sevin (carbaryl)	1 - 1½ qt. 4F or XLR Plus	21	
		1¼ - 1⅞ lb. 80S	21	
	Silencer* (lambda-cyhalothrin)	2.56-3.84 fl. oz.	30	
Tracer (spinosad)	1 - 3 fl. oz.	21		
Taiga Z* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	30		
Warrior* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	30		
Cereal Leaf Beetle	Baythroid* (cyfluthrin) (wheat only)	1.0 - 1.8 fl. oz. (2 or XL)	30	Rescue treatment is warranted when two or more larvae are found per stem.
	Carbaryl (carbaryl) (wheat only)	1 qt. 4L	21	
		1¼ lb. 80S	21	
	Endosulfan* 3EC (endosulfan) (oats & wheat)	0.33 - 0.66 qt.	Do not apply after heads begin to form	
	Entrust (spinosad) (oats & wheat)	0.5 - 2.0 fl. oz.	21	
	Lannate* (methomyl) (oats & wheat)	¼ - ½ lb. SP	7	
¾ - 1½ pt. LV		7		
Malathion (malathion) (oats & wheat)	1 - 1½ pt. 5EC	7		

Pest	Product Name (Common Name)	Amount per Acre	Pre-Harvest Interval (days)	When to Treat
Cereal Leaf Beetle (cont.)	Mustang MAX* (zeta-cypermethrin)(wheat only)	1.76 - 4.0 oz	14	
	Mystic Z* (lambda-cyhalothrin) (wheat only)	1.28 - 1.92 fl. oz.	30	
	Proaxis* (gamma-cyhalothrin) (wheat only)	2.56 - 3.84 fl. oz.	30	
	Prolex* (gamma-cyhalothrin) (wheat only)	1.02 - 1.54 fl. oz.	30	
	Sevin (carbaryl) (wheat only)	1qt. 4F or XLR PLUS 1¼ lb. 80S	21 21	
	Silencer* (lambda-cyhalothrin) (wheat only)	2.56 - 3.84 fl. oz.	21	
	Tracer (spinosad) (oats & wheat)	1 - 3 fl. oz.	21	
	Taiga Z* (lambda-cyhalothrin) (wheat only)	2.56 - 3.84 fl. oz.	30	
	Warrior* (lambda-cyhalothrin) (wheat only)	2.56 - 3.84 fl. oz.	30	

Hessian Fly

The problem of Hessian fly on wheat has been minimized by the development of resistant varieties and widespread adherence to planting wheat on or after fly-safe sowing date. The accompanying map depicts Ohio fly-free dates by county.

Wheat sown on or after the date indicated for each county will escape most egg deposition by the fall brood of Hessian fly. Egg-laying is completed within the 2- to 3-day female lifespan. Therefore, it is important to time autumn wheat sowing to escape most egg deposition on the plants.

Cruiser 5FS at 0.75 - 1.33 fl. oz./100 lb of seed is also labeled for control of Hessian fly.

