



# Bulletin

Extension

## Control of Insect Pests of Field Crops

Bulletin 545-07

### ALFALFA

The pest complex affecting alfalfa includes a variety of insect populations of which one or more may become abundant enough to warrant insecticide treatment. In general, the alfalfa plant can tolerate a significant amount of feeding by a number of different insects before a rescue treatment is economically justified. However, insect pests such as potato leafhopper can cause significant injury to the alfalfa plant at very low population levels. Vigilance is needed to accurately determine when treatment is needed.

Following is a listing of insecticide products labeled for control of the pests that affect alfalfa. Also listed in this section is information about formulation and rates of chemicals for specific pests. An asterisk (\*) indicates that the use is restricted to certified applicators.

Pest	Product Name (Common Name)	Amount per Acre	Pre-Harvest Interval (days)	When to Treat
<b>Alfalfa Weevil</b>	Ambush* 25W (permethrin)	6.4 - 12.8 fl. oz.	0 - 14	No action is warranted if no more than one late-instar weevil larvae are found per stem. If more than one larva is found per stem, early cutting or application of a rescue insecticide treatment should be implemented, depending on the value and height of the crop. Higher rates are for southern Ohio, where longer control may be required.  When possible, early cutting (alfalfa taller than 22 inches) should be practiced in place of chemical treatment to minimize upsetting populations of beneficial parasites.  For additional information about alfalfa weevil see FactSheet FC-ENT-0032.
	Arctic* 3.2 EC (permethrin)	4 - 8 fl. oz.	0 - 14	
	Baythroid* (cyfluthrin)	1.6 - 2.8 fl. oz. (2 or XL)	7	
	Carbaryl (carbaryl)	1½ qt. 4L or 1⅞ lb. 80S	7	
	Chlorpyrifos* 4E AG (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Furadan* 4F (carbofuran)	½ - 2 pt.	7 - 28	
	Imidan 70-W (phosmet)	1 - 1½ lb.	7	
	Lannate* (methomyl)	1 lb. SP or 3 pt. LV	7	
	Lorsban* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Malathion (malathion)	1½ - 2 pt. 5EC 1½ - 2¼ pt. 57 EC 1 - 2 pt. 8	0 0 0 - 7	
	Mustang MAX* (zeta-cypermethrin)	2.24 - 4 fl. oz.	3	
	Nufos* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Permethrin* 3.2 EC (permethrin)	4 - 8 oz.	0 - 14	

Pest	Product Name (Common Name)	Amount per Acre	Pre-Harvest Interval (days)	When to Treat
<b>Alfalfa Weevil</b> (cont.)	Pilot* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Pounce* (permethrin)	4 - 8 fl. oz. 3.2 EC 6.4 - 12.8 oz. 25WP	0 - 14 0 - 14	
	Proaxis* (gamma-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Sevin (carbaryl)	1½ qt. 4F or XLR Plus 1⅞ lb. 80S	7 7	
	Silencer* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Steward EC (indoxacarb) (larvae only)	6.7 - 11.3 fl. oz.	7	
	Taiga Z* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Warhawk* (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Warrior* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Yuma* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
<b>Aphids</b>	Ambush* 25W (permethrin)	3.2 - 12.8 fl. oz.	0 - 14	If more than ½ cup of aphids is collected in 10 sweeps, rescue treatment is warranted if early cutting is not feasible.
	Arctic* 3.2 EC (permethrin)	2 - 8 fl. oz.	0 - 14	
	Baythroid* (cyfluthrin)	2.8 fl. oz. (2 or XL)	7	
	Chlorpyrifos* 4E AG (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Dimethoate (dimethoate)	¾ - 1½ pt. 2.67 ½ - 1 pt. 400 or 4EC ½ - 1 pt. Dimate 4EC	10 10 10	
	Furadan* 4F (carbofuran)	½ - 2 pt.	7 - 28	
	Imidan 70-W (phosmet)	1 - 1½ lb.	7	
	Lannate* (methomyl)	½ - 1 lb. SP, 1½ - 3 pt. LV	7	
	Lorsban* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Malathion (malathion)	1½ - 2 pt. 5EC 1½ - 2¼ pt. 57 EC 1 - 2 pt. 8	0 0 0-7	
	Mustang MAX* (zeta-cypermethrin)	2.24 - 4 fl. oz.	3	
	Nufos* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Permethrin* 3.2 EC (permethrin)	2 - 8 oz.	0 - 14	
	Pilot* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	

<b>Pest</b>	<b>Product Name (Common Name)</b>	<b>Amount per Acre</b>	<b>Pre-Harvest Interval (days)</b>	<b>When to Treat</b>
<b>Aphids (cont.)</b>	Pounce* (permethrin)	2 - 8 fl. oz. 3.2 EC 3.2 - 12.8 oz. 25 WP	0 - 14 0 - 14	
	Proaxis* (gamma-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Silencer* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Taiga Z* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Warhawk* (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Warrior* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Yuma* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
<b>Meadow Spittlebug</b>	Ambush* 25W (permethrin)	6.4 - 12.8 fl. oz.	0 - 14	Spittlebug populations on alfalfa are rarely abundant enough to justify chemical treatment. However, if one or more spittle masses are found per stem, rescue treatment may be warranted.  For additional information on meadow spittlebug see FactSheet FC-34.
	Arctic* 3.2 EC (permethrin)	4 - 8 fl. oz.	0 - 14	
	Baythroid* (cyfluthrin)	0.8 - 1.6 fl. oz. (2 or XL)	7	
	Chlorpyrifos*4E AG (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Imidan 70-W (phosmet)	1 - 1½ lb.	7	
	Lorsban* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Malathion (malathion)	1½ - 2 pt. 5EC 1½ - 2¼ pt. 57 EC	0 0	
	Mustang MAX* (zeta-cypermethrin)	2.24 - 4 fl. oz.	3	
	Nufos* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Permethrin* 3.2 EC (permethrin)	4 - 8 oz.	0 - 14	
	Pilot* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Pounce* (permethrin)	4 - 8 fl. oz. 3.2 EC 6.4 - 12.8 oz. 25 WP	0 - 14 0 - 14	
	Proaxis* (gamma-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Silencer* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Taiga Z* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
	Warhawk* (chlorpyrifos)	1 - 2 pt.	14 - 21	
	Warrior* (lambda-cyhalothrin)	2.56 - 3.84 fl. oz.	7	
Yuma* 4E (chlorpyrifos)	1 - 2 pt.	14 - 21		
<b>Potato Leafhopper</b>	Ambush* 25W (permethrin)	3.2 - 12.8 fl. oz.	0 - 14	Treatment for PLH is justified when the number of

Pest	Product Name (Common Name)	Amount per Acre	Pre-Harvest Interval (days)	When to Treat
<b>Potato Leafhopper</b> (cont.)	Arctic* 3.2 EC (permethrin)	4 - 8 fl. oz	0 - 14	leaf-hoppers collected/10 sweeps is greater than the height of the alfalfa in inches.  The PLH threshold should be increased 3 times for those varieties rated greater than 50 percent PLH resistant after the stand is established.  For additional information see Fact Sheet FC-ENT- 0033.
	Baythroid* (cyfluthrin)	0.8 - 1.6 fl. oz. (2 or XL)	7	
	Carbaryl (carbaryl)	1 qt. 4L or 1¼ lb. 80S	7	
	Chlorpyrifos* (chlorpyrifos)	1 - 2 pt. 4E AG	14 - 21	
	Dimethoate (dimethoate)	¾ - 1½ pt. 2.67 ½ - 1 pt. 400 or 4EC ½ - 1 pt. Dimate 4EC	10 10 10	
	Furadan* 4F (carbofuran)	1 - 2 pt.	14 - 28	
	Imidan 70-W (phosmet)	1 - 1½ lb.	7	
	Lorsban* 4E (chlorpyrifos)	½ - 1 pt.	7 - 14	
	Malathion (malathion)	1½ - 2 pt. 5EC 1½ - 2¼ pt. 57 EC 1 - 2 pt. (8)	0 0 0 - 7	
	Mustang MAX* (zeta-cypermethrin)	2.24 - 4 fl. oz.	3	
	Nufos* 4E (chlorpyrifos)	½ - 1 pt.	7 - 14	
	Permethrin* 3.2 EC (permethrin)	4 - 8 oz.	0 - 14	
	Pilot* 4E (chlorpyrifos)	½ - 1 pt.	7 - 14	
	Pounce* (permethrin)	4 - 8 fl. oz. 3.2 EC 6.4 - 12.8 oz. 25 WP	0 - 14 0 - 14	
	Proaxis* (gamma-cyhalothrin)	1.92 - 3.20 fl. oz.	7	
	Sevin (carbaryl)	1 qt. 4F or XLR PLUS 1¼ lb. 80S	7 7	
	Silencer* (lambda-cyhalothrin)	1.92 - 3.20 fl. oz.	7	
	Steward EC (indoxacarb)	9.2 - 11.3 fl. oz.	7	
	Taiga Z* (lambda-cyhalothrin)	1.92 - 3.20 fl. oz.	7	
	Warhawk* (chlorpyrifos)	½ - 1 pt.	7 - 14	
Warrior* (lambda-cyhalothrin)	1.92 - 3.20 fl. oz.	7		
Yuma* 4E (chlorpyrifos)	½ - 1 pt.	7 - 14		