

TEMPORARY GRAZING

TEMPORARY SUMMER GRAZING INSECT CONTROL

(Millets, sudan grass, sorghum-sudan hybrids)

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PEST	MATERIAL AND FORMULATION ¹	AMOUNT PER ACRE	REMARKS AND PRECAUTIONS
Aphids	malathion 8EC	15 to 20 fl. ozs.	WHEN TO TREAT FOR INSECTS IN FORAGE GRASSES FOLIAGE FEEDING CATERPILLARS (armyworm, beet armyworm, cutworms, fall armyworm, yellowstriped armyworm): Treat for (any one or any combination) these insects when they are causing excessive defoliation. APHIDS: Treat for corn leaf aphid if heavy infestations are causing leaves to dry and die over large areas of a field. Treat for greenbug or yellow sugarcane aphid if populations of these aphids are killing 3 or more leaves per plant. "BUDWORMS" (usually fall armyworm and corn earworm): Treat when more than 50% of the plants are infested with larvae. CHINCH BUG: Treat if bugs become numerous and wilting leaves are noticed.
	zeta-cypermethrin (Mustang Max)	2.24 to 4.0 ozs.	
Armyworm, Fall Armyworm, Cutworms, Yellowstriped armyworm	carbaryl (Sevin) 80S 50WP	1 1/4 to 1 7/8 lbs. 2 to 3 lbs.	EUROPEAN CORN BORER: If plants are heavily infested (central growing shoots dying or breaking over on a high percentage of the plants), salvage crop by grazing or cutting for fodder. FLEA BEETLES, GRASSHOPPERS: Treat if heavy populations are causing excessive foliage loss. GREEN JUNE BEETLE LARVAE: Treat when populations average 5 grubs per square yard.
	Karate	1.28 to 1.92 ozs.	
	Lorsban 4E	1 to 2 pts.	
	Tracer	1.5 to 3 ozs.	
	zeta-cypermethrin (Mustang Max)	4.0 ozs.	
Chinch bug	Baythroid XL	See label. Rates vary by forage species	PESTICIDE USE PRECAUTIONS Apply any of the materials listed in this table with aerial or ground equipment as label directs. Where a range of rates is given for a material, use the low rate on small plants or small larvae and the high rate on larger plants or larger larvae. carbaryl (Sevin): 14 day grazing and harvest interval. chlorpyrifos (Lorsban): Check label for grazing and crop restrictions. Cypermethrin (Mustang Max): 0 day PHI for sorghum, 45 day PHI for millets for forage. Karate: 0 day grazing interval, 7 day harvest interval. malathion: Apply as needed up to day of grazing or harvest for hay. methomyl: 3-day harvest interval. Do not apply more than twice per crop. Do not apply more than 0.9 lb/acre/crop. spinosad (Tracer): Not labeled on all millets. Do not apply within 7 days of grain harvest or 14 days of forage harvest.
	Lorsban 4E	1 to 2 pts.	
	zeta-cypermethrin (Mustang Max)	4.0 ozs.	
Corn earworm	Baythroid XL	See label. Rates vary by forage species	
	The materials listed for armyworm give control.		
Flea beetles	carbaryl (Sevin) as applied for armyworm may give helpful control.		
Grasshoppers	carbaryl (Sevin) 80S 50 WP	1 7/8 lbs. 3 lbs.	
	malathion 8EC	15 to 20 fl. ozs.	
	zeta-cypermethrin (Mustang Max)	2.24 to 4.0 ozs.	
	Baythroid XL	See label. Rates vary by forage species	
Green June beetle larvae	carbaryl (Sevin) 80S 50 WP	1 7/8 lbs. 3 lbs.	

CAUTION: Check labels carefully. Labeling varies, and not all formulations of these materials can be used on forage grasses.

¹ Abbreviations used are: EC = emulsifiable concentrate, SP = soluble powder, S = sprayable powder, WP = wettable powder

Numbers following liquid formulations indicate lbs. active ingredient per gallon; those following solids indicate percent active ingredient.

TEMPORARY SUMMER GRAZING WEED CONTROL

(Millets, sudan grass, sorghum-sudan hybrids)

Tim R. Murphy, Extension Agronomist-Weed Science

USE STAGE/ AND HERBICIDE	BROADCAST RATE/ACRE		REMARKS AND PRECAUTIONS
	AMOUNT OF FORMULATION	POUNDS ACTIVE INGREDIENT	
TEMPORARY SUMMER GRAZING CROPS - Millets, Sorghum, Sudan Hybrids, etc.			
2,4-D (various trade names) 4 lbs./gal.	1.0 pt.	0.5	Apply to emerged broadleaf weeds when crop is 8 to 12 inches tall. Do not graze lactating dairy animals for 14 days after treatment, or cut for hay for all types of livestock for 30 days after treatment. (Grazing and haying restrictions may vary - refer to product label). Refer to specific herbicide label for use restrictions. A 2,4-D formulation labeled on millet is Formula 40.
2,4-D + dicamba (Weedmaster) 2.9 lbs. + 1 lb./gal.	1.0 pt. to 2.0 pts.	0.36 + 0.125 to 0.72 + 0.25	Apply to emerged broadleaf weeds when crop is 8 to 12 inches tall. Do not graze lactating dairy animals within 7 days. There is no restriction between application and grazing for non-lactating animals. Do not cut for hay within 37 days after treatment. Do not graze meat animals in treated areas within 30 days of slaughter. Weedmaster and Outlaw will severely injure or kill clovers or alfalfa.
Outlaw 1.45 + 1.1 lbs./gal.	1.0 pt. to 2.0 pts.	0.18 + 0.14 to 0.36 + 0.27	
FORAGE SORGHUM			
metolachlor (Dual) 8E	1.5 - 2.0 pts.	1.5 - 2.0	Apply after planting seed treated with Concep or Screen seed protectant. Apply before crop and weeds emerge.
FORAGE SORGHUM AND SORGHUM-SUDAN			
atrazine 80W atrazine 4L atrazine 90DG (various trade names)	1.5 lbs. 1.2 qts. 1.3 lbs.	1.2 1.2 1.2	Apply with 1.0 gal./A of emulsifiable oil or 1.0 qt./A of crop oil concentrate after sorghum reaches the 3-leaf growth stage but before it exceeds 12 inches in height. Controls broad leaf weeds 2 to 3 inches tall and newly-emerged (1-leaf) annual grasses. DO NOT apply with fluid fertilizers or when sorghum is under stress from cold, wet weather, poor fertility or other factors, or when sorghum is wet and tender from a recent rainfall. DO NOT graze or feed treated forage for 21 days after application.

TEMPORARY WINTER GRAZING INSECT CONTROL

(Rye, oats, wheat and ryegrass)

David Buntin, Research/Extension Entomologist

PEST	MATERIAL AND FORMULATION ¹	AMOUNT OF FORMULATION PER ACRE	LB. ACTIVE INGREDIENT PER ACRE	REMARKS AND PRECAUTIONS
Aphids	Seed Treatments Gaucho XT Gaucho 600, Attendant 600, Axxess	3.4 fl. oz./100 lb. seed 0.8 - 2.4 oz./100 lb. seed	0.03 lb / 100 lb seed 0.03 - 0.09 lb. / 100 lb seed	Treat for aphids if large numbers occur and cause leaves to dry and die over large areas. Bird cherry oat aphids also can infect wheat and oats with barley yellow dwarf disease which may reduce later forage growth. NOTE: Gaucho and Attendant are not labeled for use on ryegrass. Gaucho XT also contains Raxil and Apron fungicides.
	Post Emergence Karate Zeon (2.08)	1.28 - 1.92 fl. oz.	0.02 - 0.03	
	Malathion 57EC / 5EC Malathion 8EC	1.5 pt. 1.0 - 1.25 pt.	0.94 1.0 - 1.25	
	Methyl 4EC	1.0 - 1.5 pt.	0.5 - 0.75	
	Mustang MAX	3.2 - 4.0 fl. oz.	0.02 - 0.025	
	Fall armyworm, True armyworm	Karate Zeon (2.08)	1.28 - 1.92 fl. oz.	
Lannate 2.4 LV Lannate 90SP		0.75 - 1.5 pt. 0.25 - 0.5 pt.	0.225 - 0.45 0.225 - 0.45	
Methyl 4EC		1.0 - 1.5 pt.	0.5 - 0.75	
Mustang MAX		2.8 - 4.0 fl. oz.	0.0175 - 0.025	
Prevathon (0.43) for armyworms only		14 - 20 fl. oz.	0.047 - 0.067	
Radiant 1 SC		3.0 - 6.0 fl. oz.	0.0234 - 0.0469	
Tracer 4SC		1.5 - 2.0 fl. oz.	0.0465 - 0.063	
Grasshoppers	Karate Zeon (2.08)	1.28 - 1.92 fl. oz.	0.02 - 0.03	Generally early fall before freeze and along field edge. Treat if large numbers are causing excessive foliage loss.
	Malathion 57EC, 5EC Malathion 8EC	1.5 pt. 1.0 - 1.25 pt.	0.94 1.0 - 1.25	
	Mustang MAX	3.2 - 4.0 fl. oz.	0.02 - 0.025	
Lesser cornstalk borer				No feasible chemical control available. Gaucho XT or 600 as applied for aphid control may provide useful suppression.
Winter grain mite	Karate Zeon (2.08)	1.92 fl. oz.	0.03	Treat when mites are present and plants are stunted and discolored.
	Mustang MAX	4.0 fl. oz.	0.025	

TEMPORARY WINTER GRAZING INSECT CONTROL (continued)

PESTICIDE USE PRECAUTIONS
CAUTION: Labeling of malathion and methyl parathion products varies and not all formulations are labeled for use on forage grasses.
Gaicho XT, 600, Attendant 600 (imidacloprid): Do not graze or feed livestock on treated areas for 45 days after planting. Imidacloprid is not labeled for use on ryegrass. REI = 12 hours.
Karate Zeon (lambda cyhaltrin): Apply up to 0 days for grazing; Do not harvest for hay until 7 days after last application. Do not apply more than 5.76 fl. oz. per season. REI = 24 hours.
Lannate (methomyl): Do not make more than 4 applications per crop. Do not apply more than 1.8 lbs. AI per acre per crop. Do not graze or harvest forage within 10 days of last application. REI = 48 hours.
Malathion, others (malathion): Do not apply within 7 days of grazing or forage harvest. REI = 12 hours.
Methyl 4EC (methyl parathion): Do not graze with 15 days of last application. REI = 96 hours (4 days).
Mustang MAX (zeta cypermethrin): Apply up to 0 days for forage and hay; and 7 days for straw. Do not apply directly to livestock. Do not make applications less than 7 days apart for forage or hay. Do not apply more than 0.025 lbs. (AI) per acre per cutting. REI = 12 hours.
Prevathon (0.43): Days to harvest or grazing is 0 days. REI = 4 hours.
Radiant (spinetoram): Do not apply within 3 days of grazing or forage harvest. Most effective against small caterpillars. REI = 4 hours.
Tracer (spinosad): Do not apply within 3 days of harvest for hay or fodder. No grazing interval, but do not allow cattle to graze treated area until spray has dried. Most effective against small caterpillars. REI = 4 hours.

TEMPORARY WINTER GRAZING WEED CONTROL

Tim R. Murphy, Extension Agronomist-Weed Science

USE STAGE/ AND HERBICIDE	BROADCAST RATE/ACRE		REMARKS AND PRECAUTIONS
	AMOUNT OF FORMULATION	POUNDS ACTIVE INGREDIENT	
TEMPORARY WINTER GRAZING CROPS - Small Grains, Ryegrass			
2,4-D (various trade names) 4 lbs./gal.	1 pt. - 1 qt.	0.5 - 1.0	Apply in December, January or February to control swinecress, blessed thistle, wild garlic, curly dock and similar winter weeds after small grain tillering but before jointing. Grazing restrictions may vary among the different 2,4-D products. Several 2,4-D labels restrict grazing for dairy animals or meat animals being finished for slaughter for 14 days after treatment . For Banvel, restrict grazing for lactating dairy animals for 7 days after treatment and remove meat animals from treated areas 30 days prior to slaughter. For Banvel, there is no waiting period between treatment and grazing for non-lactating animals. Refer to specific herbicide label for additional use information.
dicamba (Banvel) 4.0 lbs./gal.	0.5 pt.	0.25	
2,4-D + dicamba (Weedmaster) 2.9 lbs. + 1 lb./gal.	1.0 pt. to 2.0 pts.	0.36 + 0.125 to 0.72 + 0.25	Apply to emerged broadleaf weeds when crop has 2 to 4 tillers. Do not graze lactating dairy animals within 7 days. There is no restriction between application and grazing for non-lactating animals. Do not cut for hay within 37 days after treatment. Do not graze meat animals in treated areas within 30 days of slaughter. Weedmaster and Outlaw will severely injure or kill clovers or alfalfa.
Outlaw 1.45 + 1.1 lbs./gal.	1.0 pt. to 2.0 pts.	0.18 + 0.14 to 0.36 + 0.27	
thifensulfuron- methyl + tribenuron-methyl (Harmony Extra SG with TotalSol) 50 SG	0.45 to 0.9 oz	0.0094 to 0.0188 + 0.0047 to 0.0094	<p>Apply after two-leaf stage of wheat, barley, triticale and oats but prior to flag leaf being visible. Harmony Extra SG is not recommended for use on ryegrass or rye. Most winter annuals can be controlled with 0.45 to 0.6 oz/A; however, 0.75 to 0.9 oz/A is recommended for controlling wild garlic or small wild radish. Add 1 qt of nonionic surfactant per 100 gal of spray solution. For best results, apply when weeds are in the two- to four-leaf stage, temperatures are above 50° F, and not drought stressed. Wild garlic should be less than 12 in. tall and should have 2 to 4 in. of new growth.</p> <p>Liquid nitrogen may be used as the carrier. When using nitrogen as the carrier, reduce surfactant rate to 0.5 to 1.0 pint per 100 gal of solution (wheat burn may still be noted). May also tank mix Harmony Extra SG with 0.25 to 0.375 lb. ai/acre of 2,4-D or MCPA for improved control of wild radish. Do not use surfactant if Harmony Extra SG and 2,4-D or MCPA are applied in nitrogen.</p> <p>Do not graze within 7 days of application. This grazing restriction applies to all types of livestock. Allow at least 30 days between application and feeding of hay from treated areas to livestock.</p>
SUPPRESSION OF BERMUDAGRASS OR BAHIAGRASS SODS			
paraquat (Gramoxone Inteon) 3.0 lbs./gal.	1.0 - 2.0 pts.	0.25 - 0.5	Apply in early fall to sod not more than 3 inches tall, just prior to or at the time of seeding clovers or winter grasses. Add surfactant according to label directions.