Extension
ALABAMA A&M & AUBURN UNIVERSITIES

IPM-0223

Noncropland

Insect and Weed Control Recommendations for 2020

IPM

INSECT CONTROL

Table 1. Noncropland Insect Control

Insect	Insecticide and Formulation	Formulation per Acre	Lb. Active Ingredient per Acre	Comments
Grasshoppers				
General Comments: *Use the lower rates for young grasshoppers and the higher rates for adult grasshoppers.*				
acephate				For early- to mid-season application. Use higher volume for dense vegetation. **DO NOT** graze or harvest vegetation.
	ORTHENE 97	0.25 lb.	0.24	
	Other trade names include ACEPHATE 90 PRILL, ACEPHATE 90 WDG, ACEPHATE 90 WSP, ACEPHATE 97, ACEPHATE 97UP, BRACKET 90WDG, BRACKET 97, ORTHENE TURF, TREE, AND ORNAMENTAL SPRAY 97			
carbaryl				Use 0.5 to 0.75 quarts for nymphs on small vegetation. Use 1 to 1.5 quarts on mature insects or application to dense foliage.
	SEVIN XLR PLUS	0.5-1.5 qt.	0.5-1.5	
	Other trade names include CARBARYL 4L, SEVIN 4F, SEVIN SL			
diflubenzuron				Dimilin is a **RESTRICTED USE** pesticide. Apply to young instars when the majority are in the second through the fourth instar. Dimilin is an insect growth regulator that will not work on adult grasshoppers.
	DIMILIN 2L	2 fl.oz./A	0.032	
	Other trade names include DIMILIN 25W			
esfenvalerate				Spray noncropland adjacent to tilled areas to control migrating insects which are a threat to the crop. Do not apply Asana to public lands. **DO NOT** graze. Asana is a **RESTRICTED USE** pesticide.
	ASANA XL 0.66EC	2.9-5.8 fl.oz.	0.015-0.03	
	Other trade names include S-FENVALOSTAR, ZYRATE			

Table 1. Noncropland Insect Control (cont.)

Insect	Insecticide and Formulation	Formulation per Acre	Lb. Active Ingredient per Acre	Comments
gamma-cyhalothrin				For noncropland adjacent to cropped areas. Apply at rates appropriate to adjacent crop and the target pest. DECLARE is a **RESTRICTED USE** pesticide. Do not graze.
	DECLARE	—	—	
	Other trade names include PROAXIS			
Grasshoppers (cont.)				
lambda-cyhalothrin				For noncropland adjacent to cropped areas. Apply at rates appropriate to adjacent crop and the target pest. Warrior II and other lambda-cyhalothrin products are **RESTRICTED USE** pesticides. Do not graze.
	WARRIOR II with ZEON TECHNOLOGY		—	
	Other trade names include LAMBDA-CY, LAMBDA-CY 1EC, LAMBDA-CY AG, LAMBDASTAR, LAMBDASTAR 1CS, LAMBDASTAR PLUS, LAMBDA-T LAMCAP, LAMBDA-CYHALOTHRIN PARADIGM, PROVINCE, PROVINCE II, SILENCER, RAVAGE, KENDO, GRIZZLY TOO, SILENCER VXN,			
malathion				Check label. Most formulations of malathion are not labeled for noncropland.
	Malathion 57 EC	1.5-3 pt.	0.94-1.25	
Imported Fire Ants				
Contact Insecticides for Individual Mound Treatment				
For more information, see "How to Kill Fire Ants," www.extension.org/pages/30628.				
acephate				**DO NOT** treat mounds more than once per season. Mix 0.75 ounce in 5 gallons of water. Sprinkle 1 gallon of diluted solution over each mound and surrounding 4-foot-diameter circle (about 1.25 teaspoons per gallon.) Grass in treated areas may be injured. **DO NOT** treat more than once per season.
	ORTHENE TURF, TREE, & ORNAMENTAL 97 SPRAY		—	
	Other trade names include ACEPHATE 97 INSECTICIDE, ACEPHATE 90 PRILL, BRACKET 97 INSECTICIDE, ACEPHATE 97 UP, ORTHENE TURF, TREE, AND ORNAMENTAL WSP			

[1] Not all brands with this name are registered for this use. Check the label to make sure fire ant control in noncropland or waste areas is on the label.

Table 1. Noncropland Insect Control (cont.)

Insect	Insecticide and Formulation	Formulation per Acre	Lb. Active Ingredient per Acre	Comments
carbaryl SEVIN XLR PLUS Other trade names include CARBARYL 4L [1], SEVIN 4F, SEVIN SL		—	—	Mix 0.75 fluid ounces of Sevin 4F per gallon of water. Apply a total of 2 gallons of the diluted solution over each mound or at least 1 quart per 6 inches of mound diameter, using a bucket or watering can. Thoroughly wet mound and surrounding area to an area 4 feet in diameter. Do not disturb the mound prior to treatment. Pour solution from a height of about 3 feet to give sufficient force to break the mound open and flow into tunnels. For best results apply when temperature is between 65 and 80°F. Repeat application after 30 days if mound activity resumes. Pressurized sprays may reduce the effectiveness of the treatment by disturbing the ants and causing migration.
Baits for Broadcast or Individual Mound Treatment				
hydramethylnon AMDRO FIRE ANT BAIT Other trade names include PROBAIT		1-1.5 lb.	0.0075-0.011	Apply as a broadcast treatment when ants are actively foraging. Noticeable results may take several weeks. Or, treat the mound by applying 2 to 5 level tablespoons per mound, disturbing material 3 to 4 feet around the mound.
hydramethylnon + s-methoprene EXTINGUISH PLUS		1.5 lb.	0.055 + 0.0037	Apply as a broadcast treatment when ants are actively foraging. Noticeable results may take several weeks. Or, treat the mound by applying 2 to 5 level tablespoons uniformly around each mound.
indoxacarb ADVION FIRE ANT BAIT		1.5 lb.	0.007	Retreat after 12 to 16 weeks if needed. Or treat the mound by applying 4 level tablespoons per mound, uniformly distributing the product 3 to 4 feet around the mound. Noticeable results will be seen within a few days.
metaflumizone SIESTA INSECTICIDE FIRE ANT BAIT		1-1.5 lb.	0.0006-0.000916	Broadcast uniformly. Repeat applications as necessary. Do not exceed 6 lb./A or make more than 4 applications in a 1-year period.
pyriproxifen DISTANCE FIRE ANT BAIT		1-1.5 lb.	0.005-0.007	Apply as a broadcast treatment when ants are actively foraging. Or, treat the mound by applying 1 to 4 level tablespoons per mound, distributing material 3 to 4 feet around the mound. Noticeable results may take 4 to 8 weeks.
s-methoprene EXTINGUISH PROFESSIONAL FIRE ANT BAIT		1-1.5 lb.	0.005-0.007	Apply as a broadcast treatment when ants are actively foraging. Or, apply as a mound treatment by sprinkling 3 to 5 tablespoons around each mound to a perimeter of 4 feet. Noticeable results may take several months.
hopper blend EXTINGUISH PROFESSIONAL FIRE ANT BAIT plus other bait		0.75 lb. + 0.75 lb. other bait	—	Mix Extinguish Professional fire ant bait in a 50:50 mix with another fire ant bait that is labeled for the site. Or treat the mound by applying 3 to 5 tablespoons per mound, disturbing material 4 feet around the mound.

NOTE: Read manufacturer's label carefully for specific information for all product use restrictions and safety.

Insect Control section prepared by Katelyn Kesheimer, Extension Specialist, Assistant Professor, Department of Entomology and Plant Pathology, Auburn University.

WEED CONTROL

Table 2. Noncropland Weed Control

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
FALL : SEPTEMBER 15–OCTOBER 1							
CLEANTRAXX	penoxsulam + oxyfluorfen	24 hr	3–4.5 pt	1.5–2.26 lb.	2 + 14	Certain broadleaf and grass weeds	Apply from early fall to late winter or in early spring, prior to germination of targeted weeds. The best weed control is obtained by application to weeds either preemergence or early postemergence when weeds are small and actively growing. See label handling and mixing precautions. At least 0.5 inches of rainfall is required within 21 days after application to activate. For postemergence applications, use 1 quart per 100 gallons of a crop oil or methylated seed oil (MSO) or 0.25% v/v nonionic surfactant.
ENDURANCE	prodiamine	12 hr	1.0–2.3 lb.	0.65–1.5 lb.	3	Small-seeded broadleaves and grasses	Apply in a minimum of 20 gallons per acre. Rainfall (minimum of 0.5 inches) is required for activation of this herbicide. Applications should be made as late as possible during September before emergence.
ESPLANADE 200SC	indaziflam	12 hr	3.5 fl.oz.	0.05 lb.	29	Broadleaf weeds, certain sedges, and grasses	Esplanade does **NOT** control emerged vegetation. A postemergent herbicide may be mixed to control emerged weeds. A minimum of 0.25 inches of rainfall is required for herbicide activation. See label for tank-mix options. EsplAnade does NOT control tubers, rhizomes, and woody vegetation. Bahiagrass and bermudagrass are tolerant. Cool-season grasses such as tall fescue and ryegrass are not tolerant. Application can be repeated but **DO NOT** exceed 10 fl.oz. per year.
METHOD 240SL	amino-cyclopyrachlor	when dry	4–12 fl.oz.	0.06–0.28 lb. ae	4	Broadleaf weeds and brush	DO NOT apply during the first growing season. Applications before complete greenup may delay greenup. Addition of MSO may increase injury. DO NOT exceed 18 ounces of product per year.
*VARIOUS	pendimethalin	24 hr	64–128 fl.oz.	2–4 lb.	3	Small-seeded broadleaves and grasses including ALS-resistant Italian ryegrass	Applications should be made as late as possible during September before emergence. Adequate rainfall is required soon after application and before seed germination for best results.

Table 2. Noncropland Weed Control (cont.)

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
LATE FALL : OCTOBER to DECEMBER							
CLEANTRAXX	penoxsulam + oxyfluorfen	24 hr	3–4.5 pt.	1.5–2.26 lb	2 + 14	Certain broadleaf and grass weeds	A selective herbicide for preemergence and postemergence residual weed control of certain broadleaf and grass weeds in noncropland. Apply from early fall to late winter or in early spring, prior to germination of targeted weeds. The best weed control is obtained by application to weeds either preemergence or early postemergence when weeds are small and actively growing. See label handling and mixing precautions. For postemergence applications, use 1 quart per 100 gallons of a crop oil or methylated seed oil (MSO) or 0.25% v/v nonionic surfactant.
METHOD 240SL	amino-cyclopyrachlor	when dry	4–12 fl.oz.	0.06–0.28 lb. ae	4	Broadleaf weeds and brush	For weed and brush control on private, public, and military lands as follows: noncrop areas such as airports, highways/ roadsides; railroad, pipeline and utility rights-of-way; sewage disposal areas; industrial areas, such as electrical substations, rail yards, or other industrial rock areas; farmyards; fuel storage areas; fence rows; nonirrigation ditch banks; barrier strips; lumberyards; pumping stations and tank farms; restoration areas; natural areas; wildlife management areas; wildlife openings; and wildlife habitats. METHOD 240SL HERBICIDE may be used for the release or restoration of native perennial grasses and in established industrial turf grasses. **DO NOT** apply during the first growing season. Applications before complete greenup may delay greenup. Addition of MSO may increase injury. **DO NOT** exceed 18 ounces of product per year.
MILESTONE	aminopyralid	48 hr	7 fl.oz.	0.1 lb.	4	Winter broadleaf weeds	Add 1 quart of surfactant per 100 gallons of spray solution.
OUST XP	sulfometuron	4 hr	2–6 oz.	0.12–0.28 lb.	2	Controls winter annuals and fescue and suppresses early summer annuals	**DO NOT** spray areas that will be planted to crops. Be aware that excessive injury will occur to desirable vegetation if surfactant is added. To improve weed control, add surfactant at 0.25% by volume.

Table 2. Noncropland Weed Control (cont.)

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
LATE FALL : OCTOBER to DECEMBER (cont.)							
PERSPECTIVE	Amino-cyclopyrachlor + chlorsulfuron	when dry	1.75–11 oz.	0.06–0.38 lb.	4 + 2	Winter annual and perennial broadleaf weeds	For PRE and POST emergence weed control. A methylated seed oil (MSO) at 0.5-1.0% v/v, a nonionic surfactant at 0.25-0.5 % v/v, or a crop oil (COC) at 1% v/v should be used for postemergence applications. See label for tank-mix options. Do not exceed 11 ounces per acre in a 365-day period. Can be used on bermudagrass and bahaigrass roadsides.
PIPER	flumioxazin + pyroxasulfone	when dry	10 oz.	0.475 lb.	14 + 15	Broadleaf weeds and grasses	Apply only to dormant bahaigrass or bermudagrass. This treatment controls emerged weeds less than 2 inches tall. Add nonionic surfactant if weeds have emerged in application site.
TRANSLINE	clopyralid	12 hr	0.25–1.33 pt.	0.1–0.5 lb.	4	Annual and perennial broadleaf weeds	Apply with addition of 0.25-0.5 % v/v nonionic surfactant.
*VARIOUS	2,4-D	48 hr	2–4 pt.	1–2 lb	4	Annual broadleaf weeds	Apply with addition of 0.25-0.5 % v/v nonionic surfactant.
*VARIOUS	dicamba	24 hr	10 - 14 fl oz	0.5 - 1 lb	4	Annual and biennial broadleaf weeds	Apply with addition of 0.25 - 0.5 % v/v nonionic surfactant.
*VARIOUS	diuron	when dry	4–12 qt	4–12 lb.	7	Annual broadleaf weeds and some grasses	For general weed control in uncultivated noncropland such as airports; utility rights-of-way; fence rows; barrier strips; highway, pipeline, and railroad right-of-ways; sewage disposal areas; petroleum tank farms; lumberyards; farm yards; fuel storage areas; industrial plant sites; around farm buildings, farm yards, and uncultivated agricultural areas. Maximum use is 12 lb. ai (12 qt. per acre) per year. Minimum retreatment interval is 90 days. See label for additional instructions.
*VARIOUS	glyphosate (4 lb/gal)	4 hr	16–32 fl.oz.	0.375–0.75 lb	9	Annual and perennial weeds	For annual and perennial weeds and woody brush and trees listed on label in noncrop areas such as railroad, pipeline, highway, power, and telephone rights-of-way; petroleum tank farms and pumping installations; roadsides; storage areas; lumberyards; fence rows; industrial plant sites; parking areas; school yards; parks, golf courses, other public areas; airports and similar industrial or noncrop areas. See label to determine if surfactant is needed. No residual control. See label for additional instructions and restrictions.

Table 2. Noncropland Weed Control

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
LATE FALL : OCTOBER to DECEMBER (cont.)							
*VARIOUS	glyphosate + 2,4-D	48 hr	48–64 fl.oz.	0.45–0.6 lb + 0.71–0.95 lb	9 + 4	Broadleaf weeds, grasses, and brush	The low rate should be used until bermudagrass is dormant.
VASTLAN	triclopyr chlorine	24 hr	0.5–9 qt.	0.5–9 lb. ae	4	Broadleaf weeds and brush	For the control of woody plants and broadleaf weeds in range and pasture, grasses grown for hay, Conservation Reserve Program (CRP) sites; forest sites, conifer and tree plantations, and Christmas tree plantations; noncrop areas; natural areas (open space),wildlife openings and wildlife habitat and management areas and aquatic sites. See label for tank mix partners. Apply with addition of 0.25-0.5 % v/v nonionic surfactant.
WINTER : JANUARY to MARCH							
CLEANTRAXX	penoxsulam + oxyfluorfen	24 hr	3–4.5 pt.	1.5–2.26 lb.	2 + 14	Certain broadleaf and grass weeds	A selective herbicide for preemergence and postemergence residual weed control of certain broadleaf and grass weeds in noncropland. Apply from early fall to late winter or in early spring, prior to germination of targeted weeds. The best weed control is obtained by application to weeds either preemergence or early postemergence when weeds are small and actively growing. See label handling and mixing precautions. For postemergence applications, use 1 quart per 100 gallons of a crop oil or methylated seed oil (MSO) or 0.25% v/v nonionic surfactant.
MILESTONE	aminopyralid	48 hr	7 fl.oz.	0.1 lb.	4	Winter broadleaf weeds	Add 1 quart of surfactant per 100 gallons of spray solution.
CLEANTRAXX	penoxsulam + oxyfluorfen	24 hr	3–4.5 pt.	1.5–2.26 lb.	2 + 14	Certain broadleaf and grass weeds	A selective herbicide for preemergence and postemergence residual weed control of certain broadleaf and grass weeds in noncropland. Apply from early fall to late winter or in early spring, prior to germination of targeted weeds. The best weed control is obtained by application to weeds either preemergence or early postemergence when weeds are small and actively growing. See label handling and mixing precautions. For postemergence applications, use 1 quart per 100 gallons of a crop oil or methylated seed oil (MSO) or 0.25% v/v nonionic surfactant.

Table 2. Noncropland Weed Control

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
WINTER : JANUARY to MARCH (cont.)							
OUST XP	sulfometuron	4 hr	0.5 oz.	0.03 lb.	2	Controls winter annuals and suppresses tall fescue	Less likely to cause a delay in bermudagrass greenup as compared to the March-April treatment.
PERSPECTIVE	amino-cyclopyrachlor + chlorsulfuron	when dry	4.75 oz.	0.016 lb.	4 + 2	Winter annual and perennial broadleaf weeds	Use 0.25-0.5 % v/v nonionic surfactant for postemergence applications. Do not exceed 11 ounces per acre in a 365-day period. Can be used on bermudagrass and bahaigrass roadsides.
PIPER	flumioxazin + pyroxasulfone	until dry	10 oz.	0.475 lb.	14 + 15	Broadleaf weeds and grasses	Apply only to dormant bahiagrass or bermudagrass. This treatment controls emerged weeds less than 2 inches tall. Add nonionic surfactant if weeds have emerged in application site.
TELAR XP	chlorsulfuron	4 hr	0.5–1 oz	0.023–0.046	2	Broadleaf weeds	Add 1 quart surfactant per 100 gallons of spray. Can be used in bermudagrass and bahiagrass
*VARIOUS	glyphosate	4 hr	24–32 fl.oz.	0.56–0.75 lb.	9	Winter annuals, tall fescue, and some weeds that may be resistant to Oust (annual ryegrass).	Apply glyphosate before bermudagrass greenup initiates in the spring or injury may result. Consult the label to determine if a surfactant is needed.
*VARIOUS	glyphosate + 2,4-D	48 hr	48–64 fl.oz.	0.45–0.6 lb. + 0.71–0.95 lb	9 + 4	Winter annuals, tall fescue, and some weeds that may be resistant to Oust.	Apply before bermudagrass greenup initiates in the spring or injury may result.
*VARIOUS	imazapic	12 hr	8–12 fl.oz.	0.125–0.1875 lb.	2	Italian ryegrass, tall fescue, and winter annual broadleaf weeds	Avoid applying imazapic after bermudagrass initiates greenup. Bahiagrass should be completely dormant or injury will occur. **DO NOT** exceed 12 ounces per year. See label for recommended additive.
SPRING : MARCH to APRIL							
CLEANTRAXX	penoxsulam + oxyfluorfen	24 hr	3–4.5 pt.	1.5–2.26 lb	2 + 14	Certain broadleaf and grass weeds	A selective herbicide for preemergence and postemergence residual weed control of certain broadleaf and grass weeds in noncropland. Apply from early fall to late winter or in early spring, prior to germination of targeted weeds. The best weed control is obtained by application to weeds either preemergence or early postemergence when weeds are small and actively growing. See label handling and mixing precautions. For postemergence applications, use 1 quart per 100 gallons of a crop oil or methylated seed oil (MSO) or 0.25% v/v nonionic surfactant.

Table 2. Noncropland Weed Control

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
SPRING : MARCH to APRIL (cont.)							
ESPLANADE 200SC	indaziflam	12 hr	3.5–5 fl.oz.	0.05–0.07 lb.	29	Annual grasses, certain broadleaves, and sedges	EsplAnade does **NOT** control emerged vegetation. A postemergent herbicide may be mixed to control emerged weeds. A minimum of 0.25 inches of rainfall is required for herbicide activation. See label for tank mix options. EsplAnade does **NOT** control tubers, rhizomes, and woody vegetation. Bahiagrass and bermudagrass are tolerant. Cool-season grasses such as tall fescue and ryegrass are not tolerant. Application can be repeated but **DO NOT** exceed 10 fl.oz. per year.
METHOD 240SL	Amino-cyclopyrachlor	when dry	4–12 fl.oz.	0.06–0.28 lb.	4	Broadleaf weeds and brush	For weed and brush control on private, public, and military lands as follows: non-crop areas such as airports, highways/roadsides, railroad, pipeline and utility rights-of-way, sewage disposal areas, industrial areas, such as electrical substations, rail yards or other industrial rock areas, farmyards, fuel storage areas, fence rows, non-irrigation ditch banks, barrier strips, lumberyards, pumping stations and tank farms, restoration areas, natural areas, wildlife management areas, wildlife openings, and wildlife habitats. METHOD 240SL HERBICIDE may be used for the release or restoration of native perennial grasses and in established industrial turf grasses.**DO NOT** apply during the first growing season. Applications before complete greenup may delay greenup. Addition of MSO may increase injury. **DO NOT** exceed 18 ounces of product per year.
MILESTONE	aminopyralid	48 hr	7 fl.oz.	0.1 lb.	4	Winter broadleaf weeds	Add 1 quart of surfactant per 100 gallons of spray solution.
OUST XP	sulfometuron	4 hr	2–6 oz.	0.12–0.28 lb.	2	Controls a wide variety of winter annuals and spring annuals and also suppresses tall fescue	Add 0.5 % v/v surfactant. Begin application to actively growing weeds in late winter to early spring. When 0.5 oz of Oust is used, less delay in bermudagrass greenup will likely be observed. If brownout or delay in bermudagrass greenup is not acceptable refer to the fall Oust application.
PIPER	flumioxazin + pyroxasulfone	until dry	10 oz.	0.475 lb.	14 + 15	Broadleaf weeds and grasses	Apply only to dormant bahiagrass or bermudagrass. This treatment controls emerged weeds less than 2 inches tall. Add nonionic surfactant if weeds have emerged in application site.

Table 2. Noncropland Weed Control

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
SPRING : MARCH to APRIL (cont.)							
TRANSLINE	clopyralid	12 hr	0.25–1.33 pt.	0.1–0.5 lb.	4	Broadleaf weeds	Apply to cover weeds using 30 to 50 gallons of spray per acre. Add 2 quarts of surfactant per 100 gallons. Apply in early spring prior to emergence of susceptible crops.
FREELEXX	2,4-D chlorine salt (3.8 lb.)	48 hr	2–8 pt.	0.95–3.8 lb.	4	Annual broadleaf weeds	For selective control of many broadleaf weeds in forests, grass pastures, rangeland, Conservation Reserve Program acres, ornamental turfgrass (including turfgrass grown for sod or seed), noncropland and aquatic areas.Apply to cover weeds using at least 10 gallons of spray per acre. Apply in early spring prior to emergence of susceptible crops. See label for restrictions, tank mixtures, additional information.
*VARIOUS	dicamba	12 hr	10–14 fl.oz.	0.5–1 lb.	4	Annual and biennial broadleaf weeds	Apply to cover weeds using 30 to 50 gallons of spray per acre. Add 2 quarts of surfactant per 100 gallons. Apply in early spring prior to emergence of susceptible crops.
VASTLAN	triclopyr chlorine	24 hr	0.5–9 qt.	0.5–9 lb. ae	4	Broadleaf weeds and brush	For the control of woody plants and broadleaf weeds in range and pasture, grasses grown for hay, Conservation Reserve Program (CRP) sites; forest sites, conifer and tree plantations, and Christmas tree plantations; noncrop areas; natural areas (open space), wildlife openings and wildlife habitat and management areas and aquatic sites. Apply to cover weeds using 30 to 50 gallons of spray per acre. Add 2 quarts of surfactant per 100 gallons. Apply in early spring prior to emergence of susceptible crops.
SPRING : TALL FESCUE SEEDHEAD SUPRESSION							
OUST XP	sulfometuron	4 hr	0.25 oz.	0.01 lb.	2	Tall fescue seedhead suppression	Apply before seedheads emerge in spring. See label for tank mix partners. Add 2,4-D and/ or dicamba (Banvel 720) plus 1 quart per acre surfactant to improve broadleaf weed control. **DO NOT** add surfactant with Oust alone. Does not control tall fescue.

Table 2. Noncropland Weed Control (cont.)

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
SUMMER - BERMUDAGRASS RELEASE							
METHOD 240SL	amino-cayclopyrachlor	when dry	4 fl.oz.	0.06 lb.	4	Broadleaf weeds and brush	For weed and brush control on private, public, and military lands as follows: noncrop areas such as airports; highways/ roadsides; railroad, pipeline, and utility rights-of-way; sewage disposal areas; industrial areas, such as electrical substations, rail yards, or other industrial rock areas; farmyards; fuel storage areas; fence rows; nonirrigation ditch banks; barrier strips; lumberyards, pumping stations, and tank farms; restoration areas; natural areas; wildlife management areas; wildlife openings; and wildlife habitats. METHOD 240SL HERBICIDE may be used for the release or restoration of native perennial grasses and in established industrial turf grasses. Applications before full greenup may delay greenup. **DO NOT** apply during first growing season. Certain trees and crops are highly sensitive. Avoid applications that could result in damage to desirable woody vegetation or crops.
SUMMER - ANNUAL WEEDS & JOHNSONGRASS							
PASTORA	nicosulfuron + metsulfuron	4 hr	1.25–1.5 oz.	0.05–0.06 lb.	2 + 2	Controls annual and perennial grasses including rhizome johnsongrass, itchgrass, and bahiagrass. Also suppresses vaseygrass and foxtails.	Use 0.25% v/v nonionic surfactant or 1 % v/v crop oil concentrate (COC). Use of COC may increase chance of bermudagrass injury. This treatment will control many broadleaf weeds as well such as pigweeds and wooly croton. **DO NOT** use on bahiagrass or tall fescue fields.
OUST XP	sulfometuron	4 hr	0.5–1 oz.	0.02–0.04 lb.	2	Controls most annuals, as well as Johnsongrass	Use low rate to control most annuals and high rate where johnsongrass is a problem. Poor control of vaseygrass, broomsedge, and dallisgrass.
*VARIOUS	imazapic	12 hr	8–12 fl.oz.	0.125–0.1875 lb.	2	Controls johnsongrass, crabgrass, common ragweed, and suppresses bahiagrass and other weeds	**DO NOT** exceed 12 ounces per acre in one year. See label for recommended additive.

Table 2. Noncropland Weed Control (cont.)

Herbicide (trade name)	Herbicide (common name)	Rentry Interval	Rate/Acre Broadcast		Herbicide Group	Weeds Controlled	Comments
			Formulation	Active Ingredient (lb./gal.)			
SUMMER - LATE SPRING TO SUMMER							
*VARIOUS	glyphosate	4 hr	16–24 fl.oz.	0.28–0.375 lb.	9	Johnsongrass, and most annual and perennial grasses.	Use on well-established bermudagrass to suppress johnsongrass. Some discoloration of bermudagrass may occur. Consult the label to determine if surfactant is needed.
SUMMER - JOHNSONGRASS CONTROL							
OUTRIDER	sulfosulfuron	12 hr	1.33 oz.	0.06 lb.	2	Johnsongrass	For johnsongrass control in bermudagrass and bahaigrass highway right-of-way and similar areas. Apply when johnsongrass is 18–24 inches tall and actively growing. Consult label for other weeds controlled.
SUMMER - BAHAIGRASS SEEDHEAD SUPRESSION							
OUST XP	sulfometuron	4 hr	0.5 oz	0.03 lb	2	Bahaigrass seed suppression	Apply before seedheads emerge in spring or soon after mowing in summer. Add 2,4-D and/or dicamba plus 1 quart per acre of surfactant to improve broadleaf control. **DO NOT** add surfactant with Oust alone. Does not control bahiagrass.
*VARIOUS	glyphosate	4 hr	8–10 fl.oz.	0.14–0.18 lb.	9	Surpresses johnsongrass and controls annual and perennial grasses.	Apply before seedheads emerge in spring or soon after mowing in summer. Will provide approximately 45 days of vegetative growth and seedhead suppression. Consult the label to determine if surfactant is needed.
*VARIOUS	imazapic	12 hr	2–3 fl.oz.	0.031–0.047 lb	2	Bahaigrass seed suppression	Provides only seedhead suppression of bahiagrass. **DO NOT** expect weed control. Raise mowing height to leave adequate existing foliage since new growth will be suppressed
SUMMER - HEMP SESBANIA CONTROL							
ESCORT XP, PATRIOT	metsulfuron	4 hr	0.5–1 oz.	0.02–0.04 lb.	2	Hemp sesbania control in noncrop areas	Add 1 quart of surfactant per 100 gallons of spray. **DO NOT** use in bahiagrass
*VARIOUS	linuron	24 hr	16 fl.oz.	0.5 lb.	7	Hemp sesbania control in noncrop areas	Add 2 quarts of surfactant per 100 gallons of spray. Apply at 40-50 gallons of spray per acre to ensure good coverage of emerged hemp sesbania.

Weed Control section prepared by David Russell, *Extension Specialist,* Assistant Research Professor, Department of Crop, Soil, and Environmental Sciences, Auburn University

FOR MORE INFORMATION on pesticides, pesticide safety, or submitting samples for analysis, see the following publications in the IPM series:
IPM 1293, "Safety." Safety contact information; worker protection standards; the safe use, handling, and storage of pesticides
IPM 1294, "Submitting Samples." Procedures for submitting samples for diagnosis, analysis, and identification
IPM 1295, "General Pesticide Information." Federal and state restricted use pesticide lists; pesticides and water quality
IPM 1317, "Appendix." Pesticide guidelines for agronomic crops, including preharvest intervals; rain-free requirements; grazing restrictions; crop rotation guidelines; and the names, classifications, and toxicities of pesticides.

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For more information, contact your county Extension office. Visit www.aces.edu/directory.

Use pesticides **only** according to the directions on the label. Follow all directions, precautions, and restrictions that are listed. Do not use pesticides on plants that are not listed on the label

The pesticide rates in this publication are recommended **only** if they are registered with the Environmental Protection Agency or the Alabama Department of Agriculture and Industries. If a registration is changed or canceled, the rate listed here is no longer recommended. Before you apply **any** pesticide, check with your county Extension agent for the latest information.

Trade names are used **only** to give specific information. The Alabama Cooperative Extension System does not endorse or guarantee any product and does not recommend one product instead of another that might be similar.

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