

LAWN AND TURF WEED MANAGEMENT

TABLE I. Turfgrass tolerance to selected herbicides*

	Bermudagrass	Centipedegrass	St. Augustinegrass	Zoysiagrass		Bermudagrass	Centipedegrass	St. Augustinegrass	Zoysiagrass
PREEMERGENCE HERBICIDES					POSTEMERGENCE HERBICIDES				
atrazine	D	T	T	T	2,4-D	T	I	I	T
benefin	T	T	T	T	2,4-D + mecoprop + dicamba	T	I	I	T
benefin + oryzalin	T	T	T	T	atrazine	D	T	T	T
bensulide	T	T	T	T	bentazon	T	T	T	T
bensulide + oxadiazon	T	NR	NR	T	carfentrazone	T	T	T	T
dithiopyr	T	T	T	T	chlorsulfuron	T	T-I	T-I	T
isoxaben	T	T	T	T	clopyralid	T	T	T	T
metolachlor	T	T	T	T	dicamba	T	I	I	T
oryzalin	T	T	T	T	diclofop	T	NR	NR	NR
oxadiazon	T	NR	T	T	fenoxaprop	NR	NR	NR	T
pendimethalin	T	T	T	T	fluazifop	NR	NR	NR	I
prodiamine	T	T	T	T	foramsulfuron	T	NR	NR	T
simazine	I	T	T	T	imazaquin	T	T	T	T
sulfentrazone + prodiamine	T	T	NR	T	iodosulfuron + thien carbazole + dicamba	T	T	T	T
					metribuzin	T-I	NR	NR	NR
					metsulfuron	T	T	T	T
					MSMA	T	NR	NR	T-I
					pronamide	T	NR	NR	NR
					rimsulfuron	T	T	NR	T
					sethoxydim	NR	T	NR	NR
					sulfentrazone	T	T	NR	T
					sulfosulfuron	T	T	T	T
					triclopyr + clopyralid	I	I	NR	I
					trifoxylfuron	T	NR	NR	T
					thien carbazole + foramsulfuron +	T	NR	NR	NR
					halosulfuron				

***Abbreviations:**

T= tolerant at labeled rates

I = Intermediate safety

NR = Not recommended/labeled – severe injury potential

D = Dormant

LAWN AND TURF WEED MANAGEMENT

GENERAL HOME LAWN WEED CONTROL

Home lawn broadleaf weed control can often be accomplished using selective post-emerge formulations that contain two or more herbicides. Formulations are available for most southern grasses. Examples are: Bayer Advanced Southern Weed Killer, GreenLight Wipe Out, Trimec Southern, Ferti-lome's Weed Free Zone, Ortho Weed-B-Gon, Atrazine. Most labels will stress their use on younger weeds growing in the cooler mid-spring to early summer period. A temporary discoloration of the lawn usually occurs. Repeat application in 3-4 weeks if needed on persistent weeds. **WARNING:** Some of these products contain phenoxy herbicides; avoid drift, keep away from gardens and clean sprayers thoroughly with ammonia. Atrazine-containing products enter through roots and leaves and work slower. **Note that MSMA is no longer available for home lawn use.**

Many manufacturers now offer herbicides impregnated on fertilizer for homeowner use. These products, however, have to be applied according to their intended use. Products containing a preemergence herbicide have to be applied before the weed emerges. For crabgrass, application is typically early March in northern areas of Louisiana, and mid-to late February in the southern portion of the state. A good rule of thumb is that *Forsythia plants begin to bloom just prior to crabgrass emergence*. If sufficient rainfall is not received, irrigation should be applied to activate the herbicide. Be sure to read and follow the manufacturer's label for maximum weed control and application instructions. Use a good quality spreader, and make every effort to apply the product uniformly to the lawn. A good practice to ensure uniform application is to apply one-half of the desired amount in one direction across the lawn, and the second half of the desired amount perpendicular to the first application.

The best defense against weeds in a home lawn is to have a dense, healthy turf canopy. Be certain to remove no more than one third of the height of the turf in a single mowing. Follow a recommended fertility regimen for your specific turf species and location.

LAWN AND TURF WEED MANAGEMENT

LAWNS and OTHER TURF AREAS

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
PREEMERGENCE HERBICIDES:			
atrazine @ 1.0-2.0 lbs/A	Aatrex and Various other formulations (See labels) @ 1.0-2.0 qt/A or 0.75-1.5 fl oz/1000 sq. ft.	<i>Poa</i> , winter annuals such as henbit, chickweeds, and lawn burweed.	Restricted use. Use only 1 quart/acre per application. Safely applied to St. Augustine, centipede, zoysiagrass, and dormant bermudagrass late fall or early winter. Do not use in overseed areas. Do not apply near drip-line of trees and shrubs.
benefin @ 2.0 – 3.0 lb/A	Balan 2.5 G @ 120 lb/A or 2.75 lb/1000 sq. ft.	Crabgrass, goosegrass, <i>Poa annua</i> (annual bluegrass) and certain other annuals.	Apply in late February to early March in south La. & early to mid March in north LA for many summer annual grasses and broadleaf weeds. Retreat in mid-September in north LA & early to mid-October in south LA for winter annuals. Do not seed treated areas within 4 months of last application. Use on established turf only.
bensulide @ 7.5 - 12.5 lb/A	Bensumec 4 EC @ 1.9 – 3.1 gal/A or 5.6 oz to 11.2 oz/1000 sq. ft. Pre-San 7 G @ 107 – 180 lb/A or 2.46 lb to 4.1 lb/1000 sq. ft.	Crabgrass, goosegrass, <i>Poa annua</i> and small seeded broadleaves.	Apply in February - early March in south LA & early March in north LA. Apply in mid Sept. in north LA & early Oct. in south LA for <i>Poa</i> . Do not seed treated areas within 4 months of last application. Use on established turf only. Labeled for established bermudagrass greens.
dimethenamid @ 1.0 - 1.5 lb/A	Tower 6 EC @ 21 - 32 oz/A or 0.48 – 0.73 oz/1000 sq. ft.	Preemergence on most annual grasses, certain broadleaf weeds, doveweed + yellow nutsedge	Most established southern grasses grown in LA. Good preemergence control of yellow nutsedge. Apply in February - early March in south LA & early March in north LA. Apply in mid Sept. in north LA & early Oct. in south LA for <i>Poa</i> .
dimethenamid + pendimethalin @ 1.75 – 3.5 lbs./A	FreeHand @ 100 – 200 lbs./A or 2.3 lbs. – 4.6 lbs./ 1000 sq. ft	Preemergence on most annual grasses, certain broadleaf weeds, doveweed + yellow nutsedge	Most established southern grasses grown in LA. Good preemergence control of yellow nutsedge. Apply in February - early March in south LA & early March in north LA. Apply in mid Sept. in north LA & early Oct. in south LA for <i>Poa</i> .
dithiopyr @ 0.38 lbs/A	Dimension 1 EC @ 2 qt/A or 1.5 oz/1000 sq. ft. Dimension Ultra 40 WP @ 0.95 lb/A or 0.35 oz/1000 sq. ft.	Crabgrass, <i>Poa</i> , foxtail, crowfoot barnyardgrass, goosegrass and small seeded annual broadleaves.	May tank mix with compatibles. Delay overseeding or sprigging for 3 mos. after application. Provides PRE control of several annual grasses and limited POST control of crabgrass. Apply on established turf only. May be used on all southern turf species.
indaziflam 0.015 – 0.04 lbs./A	Specticle 20 WSP @ 1.2 – 3.5 oz/A or 0.028 – 0.080 oz/1000 sq. ft.	Crabgrass, <i>Poa</i> , foxtail, crowfoot barnyardgrass, goosegrass and several annual broadleaves.	Apply prior to weed emergence. Consider split applications approximately 90 days after the initial. Apply on established turf only. May be used on most southern turf species. Do not use on greens.
isoxaben @ 0.5-1.0 lbs./A	Gallery 75 DF @ 0.7 – 1.3 lbs/A or 0.25-0.5 oz/1000 sq. ft.	Many broadleaves. No grasses are controlled.	Do not apply through irrigation. Keep in agitation. Can tank mix with other products. All established turfgrasses are tolerant.

LAWN AND TURF WEED MANAGEMENT

LAWNS and OTHER TURF AREAS

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
oxadiazon + bensulide @ 6 + 1.5 lb/A	Goosegrass/ Crabgrass Control @ 6.56 G @ 116 lb/A or 2.6 lb/1000 sq. ft.	Crabgrass, goosegrass, <i>Poa annua</i>	Apply on established zoysiagrass, perennial ryegrass, and bermudagrass. May be applied to established greens and tee boxes.
prodiamine @ 0.75 - 1 lb/A	Barricade 65 WG @ 0.75 – 1.5 lbs/A or 0.28 - 0.4 oz/ 1000 sq. ft. Barricade 4L @ 0.625 – 3 pt/A or 0.23 – 1.1 oz/1000 sq. ft.	Crabgrass, <i>Poa annua</i> , foxtail, crowfootgrass, barnyardgrass, goosegrass, and small seeded annual broadleaves.	On established turf, including ryegrass. Long residual. Use caution if winter kill of existing turf is suspected. All southern grasses are tolerant.
pronamide @ 0.5 lb/A	Kerb 50W @ 1 lb/A or 0.37 oz/1000 sq. ft.	Pre or early post in fall or winter for control of <i>Poa annua</i> .	May be applied to established greens and tee boxes. Use on dormant or active bermudagrass for <i>Poa</i> . Ryegrass overseed, fescues and bentgrass will be injured. Acts mainly through root absorption. Beware of runoff onto sensitive grasses. Do not use within 70 days prior to overseeding. Postemergence activity is slow (1 to 2 months). Restricted use.
pendimethalin @ 1.7 – 3.0 lb/A	Pendulum 3.3 EC @ 3.6–4.8 pt/A or 1.3–1.8 oz/ 1000 sq. ft. Pendulum AquaCap 3.8 @ 3.1 – 6.2 pt/A or 1.15 oz – 2.3 oz/1000 sq. ft. Pendulum 2G @ 75–150 lb/A or 1.7 – 3.4 lb/1000 sq. ft.	Goosegrass, crabgrass, and small seeded broadleaves.	For established warm season grasses. Not for spring use when turf suffers from severe winter kills. Irrigate after application. All southern grasses are tolerant.
metolachlor @ 1.2 – 2.6 lbs/A	Pennant Magnum 7.62 EC @1.3 - 2.6 pt/A or 0.48-0.96 oz/1000 sq. ft	<i>Poa</i> , goosegrass ,crabgrass plus yellow nutsedge, some annual sedges, and small seeded broadleaves.	For warm season turfs. Not for tees or greens. Do not overseed 4 months prior or 6 months after. Also for ornamentals.
sulfentrazone + prodiamine	Echelon 4 SC @ 0.5 – 2.25 pt/A or 0.184 – 0.826 oz/1000 sq. ft.	Annual grasses, annual sedges, yellow nutsedge, certain broadleaf weeds.	Apply safely to bermudagrass, centipedegrass, zoysiagrass, and seashore paspalum after the second mowing. Do not apply on St. Augustinegrass.
oxadiazon @ 2.0-4.0 lb/A	Ronstar 2 G @ 100 – 200 lb/A or 2.3 – 4.6 lb/1000 sq. ft. Regal Ronstar 2 G @ 100 – 200 lb/A or 2.3 – 4.6 lb/1000 sq. ft. Ronstar 50 WP@ 4 – 6 lb/A or 1.5 – 2.2 oz/1000 sq. ft.	<i>Poa annua</i> , crabgrass, goosegrass, oxalis, many other annual grasses and broadleaf weeds.	For use on established St. Augustine, Zoysia, and bermudagrass only. Do not exceed 150 lb/acre (3 lb active) on St. Augustine turf. May cause temporary discoloration. Do not apply to centipedegrass or bermudagrass golf greens. Can split applications 30 days apart. 50WP for dormant turf. Apply 50 WP several weeks prior to greenup.

LAWN AND TURF WEED MANAGEMENT

LAWNS and OTHER TURF AREAS

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
fenarimol @ 1.4 - 2.0 lb/A	Rubigan 50WSP @ 44 – 65 oz/A or 1 – 1.5 oz/1000 sq. ft. repeat in 10-14 days	<i>Poa annua</i>	Apply to greens and tees prior to overseeding in 2 to 3 applications. The final application should be made 2 weeks prior to overseed. Acts by reducing <i>Poa annua</i> growth to allow overseed to dominate on bermuda greens. Rubigan is an effective, locally systemic, broad spectrum fungicide for dollarspot and brown patch. Single, double or triple split application. Single applications provide poor <i>Poa annua</i> control.
oryzalin @ 3.0 lb/A	Surflan 4 AS @ 3 qt/A or 2.2 oz/1000 sq. ft.	Crabgrass, rye, goosegrass and barnyard grasses, foxtails and <i>Poa annua</i> as well as many broadleaves.	Not for greens or tees. Delay reseeding 3-4 months. Safe for all established warm season grasses.
simazine @ 1 – 2 lb/A	Simazine 4 L @ 1 – 2 qt/A or 0.75 – 1.5 oz/1000 sq. ft.	Provides excellent control of <i>Poa annua</i> as well as many winter broadleaves.	Safely applied to St. Augustine, centipede, zoysiagrass, and bermudagrass late fall or early winter. Do not use in overseeded areas.
SELECTIVE POSTEMERGENCE HERBICIDES:			
atrazine @ 1.0-2.0 lbs/A	Aatrex and Various other formulations (See labels) @ 1.0 – 2.0 qt/A or 0.75 – 1.5 fl oz/1000 sq. ft.	Florida betony, <i>Poa</i> , dollarweed, lespedeza, henbit, lawn burweed.	Restricted use. Do not apply more than 1 qt/A per application. Safely applied to St. Augustine, centipede, zoysiagrass, and dormant bermudagrass in early winter for several winter weeds. Do not use in overseed areas. Do not apply near drip-line of trees and shrubs.
simazine @ 1 – 2 lb/A	Simazine 4 L @ 1 – 2 qt/A or 0.75 – 1.5 oz/1000 sq. ft.	Good post control of <i>Poa annua</i> as well as many winter broadleaves.	Safely applied to St. Augustine, centipede, zoysiagrass, and bermudagrass late fall or early winter. Do not use in overseed areas. Apply after last home game on non-over-seeded football fields.
fenoxaprop @ 0.57 – 0.174 lb/A	Acclaim 0.57 EC @ 13 – 39 fl oz/A or 0.75 – 1 fl oz/1000 sq. ft.	Early postemergence - several annual grasses and bermudagrass suppression.	Can be safely applied to zoysiagrass. Suppresses of bermudagrass infesting zoysiagrass.
asulam @ 1.7-2.1 lb/A	Asulox 3.3 EC @ 4-5 pts/A or 1.5 - 1.8 oz/1000 sq. ft.	Crabgrass, goosegrass, and sandbur.	Postemergence use in Tifway 419 bermuda and St. Augustinegrass sod. Do not apply to residential turf. Do not apply to freshly mowed or stressed turf. Do not use surfactant. One application per season. Some discoloration may occur, especially in hot weather.

LAWN AND TURF WEED MANAGEMENT

LAWNS and OTHER TURF AREAS

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
dicamba @ 0.25 – 0.5 lb/A	Banvel 4S @ 0.5-1 pt/A or 1-2 teaspoons/1000 sq. ft.	Annual and biennial broadleaves, woody brush and vines. Chickweed, white clover, henbit, burweed, wild strawberry, curly dock, spotted spurge.	Use on deep-rooted, stubborn broadleaves. Apply sufficient gallons to coat foliage down to base of plant. Repeat application may be needed. Do not exceed 0.5 lb per acre per year. Applications over 0.25 lb./A may temporarily stunt and discolor some grasses. Apply no more than 0.5 pt/A to St. Augustinegrass. May be tank mixed with 2,4-D, MCP, MCPA (consult label).
bentazon @ 1.0 – 2.0 lb/A	Basagran T/O or Lescogran 4 SL 1 - 2 qt/A or 0.75-1.5 oz/1000 sq. ft.	Yellow nutsedge and annual sedges, and green kyllinga with repeat applications.	Use on established warm season grasses turf. Can repeat at 10 to 14 days. Do not apply more than 3 qt/A/season. Do not mow 3-5 days before or after application. May add crop oil concentrate.
sulfosulfuron @ 0.05 - .09 lb/A	Certainty 75 WG @ 1.25 – 2.0 oz/A or 0.03 – 0.04 oz/1000 sq. ft.	Yellow and purple nutsedge and green kyllinga plus johnsongrass	Safe on all warm season turfgrasses and very effective on most sedges including green kyllinga. Additionally, herbicide controls johnsongrass.
ethofumesate @ 1.0-2.0 lbs/A	Prograss 1.5 F @1.0 – 2.0 gallons/A or 3 - 6 oz/1000 sq. ft. lt soil 3.5-4 oz/1000 sq. ft. med-hvy soil	Annual grasses (<i>Poa annua</i>), pigweed, chickweed, purslane, barnyardgrass, crabgrass and foxtail. Suppresses nutsedge.	Apply pre or early postemergence. Hastens or extends dormancy in bermudagrass. Therefore, apply 3-4 wks after overseeding. Do not overlap. Repeat once for extended control. Overseed only with perennial ryegrass. Maximum 8 pt/A/season. Seasonal influences on bermudagrass recovery can be significant for Baton Rouge and southward.
dicamba diglycolamine @ 0.09-1lb/A	Clarity @ 3-32 oz/A or 0.07-0.74 oz/1000 sq. ft.	Same weeds controlled with Banvel	After green-up. To avoid injury to newly emerged grasses, wait until after the second mowing to apply. Applications of more than 16 oz/A may discolor susceptible grasses. Consult label. Do not exceed 32 oz/A/yr. See recommendations for sensitive grasses.
triclopyr plus clopyralid @ 0.09 – 0.19 lb/A.	Confront 3 SL @ 1.5-2.0 pt/A or 0.5-0.75 oz/1000 sq. ft or Pump-up sprayer @ 1 tablespoon / gal for spot treatments	Many annual and perennial broadleaves. Black medic, white clover, chickweed, burweed, lespedeza, wild violet, Virginia buttonweed	Postemergence on active weeds. Repeat if necessary. May be used on bermudagrass, centipedegrass, and zoysiagrass. Do not apply on St. Augustinegrass. Avoid drift and contact of shrubs. Not for golf greens or tees. A maximum 2 qts/A/yr. Do not apply to residential turf.
quinclorac @ 0.75/A	Drive 75 DF 1 lb/A or 0.367 oz//1000 sq. ft. Drive XLR 8 @ 64 oz/A or 1.45 oz/1000 ft ²	Crabgrass, barnyardgrass, lespedeza, clover, and suppression of torpedograss	For bermudagrass and zoysiagrass. Do not apply to centipede, St. Aug., or bahiagrass. Three applications needed for torpedograss management.

LAWN AND TURF WEED MANAGEMENT

LAWNS and OTHER TURF AREAS

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
Quinclorac, sulfentrazone, dicamba,2,4-D @ 1.1 to 1.6 lb/A	Q4 Plus @ 5 to 7 pt/A or 1.8 to 2.6 oz/1000 ft ²	Crabgrass, barnyardgrass, broadleaf signalgrass, foxtail, lespedeza, clover, Florida betony, yellow nutsedge	Warm season application is limited to bermudagrass. Reduced crabgrass control at 3 to 4 tillers. Apply at least 2 days before mowing or 2 days after. Do not apply to centipedegrass or St. Augustinegrass.
diclofop @ 0.75-1.5 lb/A	Illoxan 3EC @ 32 - 44 oz/A 0.75 - 1.0 oz/1000 sq. ft.	Goosegrass infesting bermudagrass on golf courses including greens	Postemergence control of goosegrass up to 1 tiller. Apply on established bermudagrass. Do not tank-mix with fertilizers or other pesticides. Do not overseed treated area for at least 2 months following application. Avoid mowing treated areas for 36 hours. Restricted use.
imazaquin @ 0.38 - 0.5 lb/A	Image 70 DG @ 8.6 – 11.4 oz or 0.2 – 0.26 oz/1000 sq. ft.	Chickweed, henbit, clover, geranium, pigweed, onions, purple nutsedge, burweed, sandbur; kyllinga and dollarweed suppression.	Can be used on all warm season grasses. However, do not apply to dormant or transitional St. Augustinegrass. Do not tank mix with other postemergence herbicides. Not for cool season grasses or golf greens. Some yellowing may occur especially in tire tracks or low areas. Repeat for improved control.
clopyralid @ 0.09 -0.5 lb/A	Lontrel 3 EC @ 0.25-1.33 pt/A 0.1 – 0.5 oz/1000 sq. ft.	Broadleaf weeds including legumes and buttonweed	Safely applied to all warm season grasses. Do not use on putting greens or tees. No surfactant is needed. Can provide effective control of Virginia buttonweed but repeated applications may be necessary. Avoid drift to susceptible ornamental plants. Do not apply to residential turf.
metsulfuron @ 0.01 – 0.038 lb/A	Various trade names including: Blade, Manor, Mansion, MSM etc. 60 WDG @ 0.33 – 1 oz/A or 0.007 – 0.023 oz/1000 sq. ft.	Pensacola bahiagrass, clovers, rose (pink) woodsorrel, many winter broadleaves, suppresses buttonweed with 2 applications sprayed 6 weeks apart.	Controls a wide range of broadleaf weeds. Labeled for St. Aug., bermudagrass, zoysiagrass, centipedegrass. Do not exceed 0.5 oz/A on centipedegrass. Do not overseed for 8 weeks after application.
MSMA @ 2.0–3.0 lb/A	MSMA 6 SL @ 1.3 - 2 qt/A or 1.0 - 1.5 oz/1000 sq. ft. MSMA 6.6 SL @ 1.2 – 1.8 qt/A or 1.0 - 1.3 oz/1000 sq. ft	Bahiagrass, crabgrass, dallisgrass, nutsedges	Bermudagrass and zoysiagrass are tolerant. 6 lb/gallon formulation has surfactant but 6.6 lb/gallon formulation does not. Best performance can be expected when air temperatures are at least 80 degrees. Repeat applications are required 7-10 days apart. Dallisgrass control requires multiple applications. Emerald zoysiagrass is susceptible to MSMA. See new application restrictions on label.

LAWN AND TURF WEED MANAGEMENT

LAWNS and OTHER TURF AREAS

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
halosulfuron @ 0.03-0.06 lb/A	Sedgehammer 75 WDG @ 0.6 - 1.33 oz/A or 0.138 – 0.03 oz/1000 sq. ft. or 0.25 teaspoon/gal spot	Nutsedges (purple & yellow) Suppression of kyllinga species.	Postemergence with repeat application necessary within 6 weeks with heavy infestations. Use non-ionic surfactant. Can be used on all warm season grasses.
chlorosulfuron @ 0.05 – 0.25 lb/A	Corsair 75 WDG @ 1 – 5.33 oz/A or 0.02 – 0.122 oz/1000 sq. ft.	VA buttonweed suppression with 2 applications spaced 6 weeks apart. white clover, wild garlic	Some discoloration and delayed greenup in St. Augustinegrass. Good activity on most broadleaf weeds.
trifloxysulfuron @ 0.015 - 0.02 lb/A	Monument 75 WG @ 0.33- 0.56 oz/A or 0.007- 0.011 oz/1000 sq. ft. Spot treatment @ 0.0176 oz/gallon + 2 teaspoons of non-ionic surfactant.	Purple, yellow and annual sedges plus green kyllinga, oxalis, white clover, spotted spurge, <i>Poa</i> , ryegrass overseed, Virginia buttonweed	Bermudagrass and zoysiagrass only. Excellent sedge and green kyllinga control. Suppresses Virginia buttonweed. Repeat applications may be needed 4 wks after initial application for buttonweed. Use rates 0.1 to 0.3 oz/A for overseed removal. Allow 6 wks between last application and overseeding with ryegrasses. May be applied on bermudagrass golf greens.
rimsulfuron @ 0.031- 0.062 lb/A	TranXit GTA and generics 25 DF @ 1 – 2 oz/A or 0.046 – 0.09 oz/1000 sq. ft.	<i>Poa annua</i> , perennial ryegrass overseed	<i>Poa annua</i> control in non-overseeded bermudagrass. Transitional aid for the removal of ryegrass overseed. May be used on established bermudagrass golf greens and tees.
iodosulfuron + thien carbazole + dicamba @ 0.10 to 0.21 lb/A	Celsius 68 WG @ 2.5 - 4.9 oz/A or 0.057 - 0.113 oz/1000 sq. ft.	Broadleaf weeds such as white clover, chickweed, buttonweed and suppression of dallisgrass with sequential applications or applied as spot.	Excellent safety on most lawn grasses grown in LA except carpetgrass. Good safety on St. Augustinegrass in hot weather. Do not apply to a turf overseeded with cool season grasses such as perennial ryegrass. Do not apply to carpetgrass.
thien carbazole + foramsulfuron+halosulfuron @ 0.037 to 0.121 lb/A	Tribute Total 60.5 WDG @ 1.0 – 3.2 oz/A or 0.02 – 0.07 oz/1000 sq. ft.	Several grassy and broadleaf weeds including ryegrass, <i>Poa</i> , clovers buttonweed. Provides suppression of dallisgrass.	Bermudagrass only. Use a non-ionic surfactant. Provides good suppression of dallisgrass when applied in 2 applications in late summer to early fall @ 3.2 oz/A per application. Can be helpful in the management of buttonweed.
flazasulfuron @ 0.012 to 0.047 lb/A	Katana 25 DF @ 0.75 to 3.0 oz/A or 0.0172 to 0.068 oz/1000 ft ²	Effective removal of perennial ryegrass and <i>Poa trivialis</i> overseed. Also controls annual bluegrass, blue-eyed grass, and newly emerged crabgrass.	Bermudagrass or zoysiagrass with some limited low rate use in centipedegrass. Do not apply on golf greens.
metribuzin @ 0.2-0.5 lb/A	Sencor 75 DF @ 5.3-10.5 oz/A or 0.12-0.24 oz/1000 sq. ft.	Chickweed, henbit, burweed, Speedwell, goosegrass when tankmixed with MSMA.	Postemergence on dormant bermudagrass turf (use higher rates). Actively growing turf (mid spring) bermudagrass only. Do not apply on golf greens, tees or aprons. Delay mowing for at least 3 days before spray. Do not exceed 1.5 lb/A/season or more than 1 application on dormant or 2 applications on active turf. Mix with MSMA at 0.1-0.2 lb/A for goosegrass control.

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2,4-D + MCPP + dicamba @ 0.68 – 1.35 lb/A	Trimec Classic 2.7 EC @ 2 – 4 pt/A (consult label for other turf) or 0.75 – 1.5 oz/1000 sq. ft. for hybrid Bermuda and 1 oz/1000 sq. ft. for St. Augustinegrass or centipede grass	Virginia buttonweed, Henbit, lespechea, clovers, dandelion, dock, burweed, bull thistle, wild strawberry and many other broadleaves	Consult label for specific turf rates. Provides good control of many broadleaf weeds. Avoid non-target drift. For clover, 4 pints/A is recommended. Maximum of 2 applications per year. Do not apply when temperatures exceed 85 F.
2,4-D + MCPP + dicamba @ 0.375 - 0.75 lb/A	Trimec Southern 3 EC @ 1 – 2 pt/A or 0.37 – 1 oz/1000 sq. ft. (consult label for specific turf)	Henbit, lespechea, clovers, dandelion, dock, lawn burweed, bull thistle, wild strawberry and many other broadleaves.	May be applied to most southern turf. However, use rates vary for particular grass species. Use 1.5 pt/A in St. Augustinegrass. Contains less 2,4-D than Trimec Classic. Do not apply when temperatures exceed 90 F.
2,4-D + MCPP + dicamba + carfentrazone @ 0.1519 – 0.6075 lb/A	Speed Zone South 2.2 EC @ 1.5 – 6 pt/A or 0.55 – 2.2 oz/1000 sq. ft. for hybrid Bermuda 1 oz/1000 sq. ft. for St. Augustinegrass or centipede grass	Virginia buttonweed, Henbit, lespechea, clovers, dandelion, dock, lawn burweed, bull thistle, wild strawberry and many other broadleaves	May be used in most warm season turfgrass. Consult label for specific turf rates. Provides good control of many broadleaf weeds. Avoid non-target drift. Do not apply when temperatures exceed 85 F.
2,4-D amine @ 0.75 - 1 lb/A	2,4-D amine 3.84 EC @ 1.5 – 2.0 pt/A or 1.0 oz or 2 tablespoons/ 2 gals water/1000 sq. ft.	Many annual, biennial and perennial broadleaf weeds.	St. Augustinegrass is the most sensitive warm season turf. Use spot treatments instead of broadcast. Apply on sunny days when the temperature is well above 60F and there is little wind presence. Observe regional rules concerning 2,4-D use in cotton producing areas of the state.
sethoxydim @ 0.28/A	Spot treatments @ 0.5 oz/gallon/1000 sq. ft in St. Segment 1 EC @ 2.25 pt/A or 0.83 fl oz/1000 sq. ft.	Crabgrass, goosegrass, and other annual grasses. Temporary torpedogras suppression. Poor control of carpetgrass.	Postemergence on grassy weeds in centipede. May be used on seedling centipede grass (delay application until 3 in. of new stolon growth) and established centipede grass. Apply at 1.5 pt/A rate for seedling centipede grass. Ensure good coverage of target foliage. Use during good growing conditions. If centipede is cold stressed, delay application until 3 weeks after green up. A maximum two applications/year on established centipede. Only suppresses torpedogras. For bahiagrass suppression, reapply 10 to 14 days after first application. Some limited torpedogras suppression with 2 applications spaced 3 weeks apart.

NON-SELECTIVE POSTEMERGENCE HERBICIDES:

cacodylic acid @ 8 lb/A	Phytar 560 2.48 EC @ 12 TBL in 3 gal water for 816 sq. ft.	Most annual vegetation contacted
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REFER TO LABEL FOR COMPLETE

INSTRUCTIONS. A non-selective contact herbicide to control top growth of weeds. Similar to paraquat in activity. One tablespoon of surfactant/3 gal water is usually beneficial for spot treatments.

LAWN AND TURF WEED MANAGEMENT**LAWNS and OTHER TURF AREAS**

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
dazomet @346.5 lb/A	Basamid 99 G @ 350 lb/A or 8 lb/1000 sq. ft.	Soil treatment that kills most weeds prior to planting.	Follow label carefully. Apply prior to planting. Fall for early spring planting. Soil fumigant used 2-4 weeks ahead of planting depending on soil temperature. Toxic to fish.
diquat 0.25 - 0.5 lb/A	Reward 2 SL @ 1 - 2 pt/A 0.4 – 4.4 fl oz/1000 sq. ft.	Most annual weeds	Use on dormant bermudagrass and for edging. Top burn kill; same as paraquat. Presently a 24C label. Add a nonionic surfactant, if advised. Not effective on perennial weeds.
glufosinate – ammonium @ 0.75 – 1.5 lb/A	Various other formulations Finale I SL @ 3-6 qt/A or spot treatment 1.5-4.0 oz/gal	Most weeds including Asian jasmine	Nonselective burndown like paraquat. Locally systemic. Many tankmix combinations. Use 20-40 g/A for sufficient coverage.
glyphosate @ 1.0-5.0 lbs.	Roundup Pro 4 SL and others @ 1-- 1.5 qt/A for annuals or 2.5-5 qt/A for perennials & turf renovation 0.75–3 oz/1000 sq. ft. or Spot treatments @ 1-2% solution	Most grasses and herbaceous broadleaves	This nonselective herbicide is systemic. Spray foliage only to wet. Leaves should have no heavy dust cover. Use when no rain expected for at least 6 hours. Plants should not be stressed. Use when target vegetation is actively growing. For turf renovation, wait 7-10 days before cultivating. Not for use on dormant St. Augustine, Centipede or Carpetgrass.