

Turfgrass Tolerance of Postemergence Herbicides

Herbicide	Bermudagrass	Centipedegrass	St. Augustinegrass	Tall Fescue	Zoysiagrass
2,4-D	S	I	I	S	S
2,4-D + dicamba	S	I	I	S	S
2,4-D + dichlorprop (2,4-DP)	S	I	I	S	S
2,4-D + mecoprop	S	I	I	S	S
2,4-D + mecoprop + dicamba	S	I	I	S	S
2,4-D + mecoprop + dichlorprop	S	I	I	S	S
atrazine (AAtrex)	S-I	S-I	S-I	NR	S-I
bentazon (Basagran)	S	S	S	S	S
bromoxynil (Buctril)	S	S	S	S	S
carfentrazone (Quicksilver)	S	S	S	S	S
chlorsulfuron (Corsair)	S	NR	NR	NR	NR
clopyralid (Lontrel)	S	S	S	S	S
dicamba (Banvel)	S	I	I	S	S
diclofop (Illoxan)	S	NR	NR	NR	NR
fenoxaprop (Acclaim)	NR	NR	NR	S	S
fluzifop-p (Fusilade II)	NR	NR	NR	S-I	S-I
foramsulfuron (Revolver)	S	NR	NR	NR	S
halosulfuron (Sedge Hammer)	S	S	S	S	S
imazaquin (Image)	I	NR	S	NR	S
MCPA + MCPP + dichlorprop	S	I	I	S	S
mecoprop (MCP)	S	I	I	S	S
metribuzin (Sencor)	S-I	NR	NR	NR	NR
metsulfuron (Manor)	S	S	S	NR	S
MSMA, DSMA	S	NR	NR	I	I
pronamide (Kerb)	S	NR	NR	NR	NR
sethoxydim (Segment)	NR	S	NR	NR	NR
sulfentrazone (Dismiss)	S	S	NR	S	S
sulfosulfuron (Certainty)	S	S	S	NR	S
triclopyr + clopyralid (Confront)	I	NR	NR	S	I
trifloxysulfuron (Monument)	S	NR	NR	NR	S

S = safe at labeled rates, I = Intermediate safety, use at reduced rates, NR = Not registered for use on this turfgrass, do not use.

Turfgrass Tolerance of Preemergence Herbicides

Herbicide	Bermudagrass	Centipedegrass	St. Augustinegrass	Tall Fescue	Zoysiagrass
atrazine (AAtrex)	S	S	S	NR	I-S
benefin (Balan)	S	S	S	S	S
benefin + oryzalin (XL)	S	S	S	S	S
benefin + trifluralin (Team)	S	S	S	S	S
bensulide (PreSan)	S	S	S	S	S
bensulide + oxadiazon (Goosegrass/Crabgrass)	S	NR	NR	NR	S
dithiopyr (Dimension)	S	S	S	S	S
fenarimol (Rubigan)	S	NR	NR	NR	NR
isoxaben (Gallery)	S	S	S	S	S
metolachlor (Pennant)	S	S	S	S	S
napropamide (Devrinol)	S	S	S	S	NR
oryzalin (Surflan)	S	S	S	S	S
oxadiazon (Ronstar)	S	NR	S	S	S
pendimethalin (Pre-M)	S	S	S	S	S
prodiamine (Barricade)	S	S	S	S	S
pronamide (Kerb)	S	R	R	NR	R
simazine (Princep)	I	S	S	NR	S

S = safe at labeled rates on healthy mature turf. I = Intermediate safety, may cause minor damage to mature, healthy turf. Consider using the lower end of the rate range. Do not apply to turf under stress. NR = Not registered for use on this species.

Preplant Nonselective Weed Control

Common Name	Trade Name	Weeds Controlled	Comments
dazomet	Basamid Granular		Basamid has recently been introduced as a soil fumigant. Basamid is a granular formulation and is not a restricted use pesticide. Dazomet must be applied accurately and uniformly and then incorporated into the soil. Its use and effectiveness are very similar to metham.
diquat	Reward (2 lb/gal)	nonselective	Reward is an aquatic and noncrop herbicide. It has no soil residual activity. Do not allow the spray droplets to contact desirable plants. Diquat is a contact herbicide. It is most effective on annual vegetation. Do not use on lawns. For spot spray add 4 teaspoonsful of Reward plus one teaspoonful of nonionic surfactant to one gallon of water. Use two qt/ac for broadcast applications. Reward is a restricted use herbicide.
glyphosate	Glyphosate (4 lb/gal formulations) See table on page 23 for specific conversions and surfactants.	nonselective	Apply to areas that are to be renovated to kill existing vegetation. Glyphosate does not have any soil activity. Add 2 to 3 oz per gallon of 3 lb ae/gal glyphosate. Do not apply to weeds under stress. It is nearly impossible to eradicate bermudagrass with glyphosate. Three applications are needed to get greater than 90% control. Reapply when regrowth is obvious. Glyphosate will not eradicate nutsedge or control tubers. When attempting to control stubborn perennial weeds, repeat applications at lower rates are more effective than a single treatment at high rates. That is, 2 qt/ac applied twice is better than 4 qt/ac applied once.
glufosinate	Finale (1 lb/gal)	nonselective	May be used for trimming and edging around landscape areas, sand traps, cart paths, beds, walks, driveways, etc. Broadcast rates are from 3 to 6 qt/ac. Use 1.5 to 4.0 oz per gallon of water for spot treatment. Do not allow the spray droplets to contact desirable plants. Minimal translocation occurs so that Finale may be used to edge a straight line in stoloniferous grasses such as bermuda. No soil residual activity.
metham-sodium (metham)	Vapam	nonselective	Metham should be applied to moist soil with a temperature of at least 60°F. It is most effective when used with a cover, but it may be used with a water and soil-seal method. With the water soil-seal method, the soil is cultivated and kept moist for a week before treatment. The material is applied, roto-tilled, and watered in to the desired depth of control (usually 4 to 6 inches). Approximately seven days after treatment, the area should be cultivated to help release any residual gas. One to two weeks later (two to three weeks after initial application), the treated area may be planted. Disadvantages of metham use include the lowered effectiveness when used without a cover and the longer waiting period before planting.
methyl bromide	Brom-O-Gas, others	nonselective	Methyl bromide is extremely toxic (acute vapor toxicity is 200 ppm) due to inhalation hazard, and it is commonly combined with a warning agent such as chloropicrin (teargas) to warn the user of escaping gas. Before using methyl bromide, the soil should be in a condition suitable for planting including seedbed preparation by tilling. Control will be only as deep as the soil is adequately tilled. Soil should be moist for adequate soil penetration and dispersion. Saturated soils or extremely dry soil Moisture saturated or extremely dry soils will limit fumigant movement through the soil, thus reducing the level of weed control. Soil temperature at 4 inches should be a minimum of 66°F. Fumigation will not be effective if soil temperature is below 50°F. Before or during application, the site should be covered with plastic film with the edges properly sealed to prevent gas leakage. The treated area should be covered for 24 to 48 hours. The cover should then be removed and the soil aerated for 24 to 72 hours before planting. Use 1.0 to 1.5 lb per 100 sq ft. Methyl bromide is a toxic material for use by professional applicators only. There are a few traveling applicators who specialize in golf course fumigation work.