PREEMERGENCE HERBICIDES¹ (Refer to Herbicide Label for Specific Species and Use Listing)

Comments. Preemergence herbicides work for 60 to 75 days and require repeat applications for season-long control. Approximate timing for preemergence crabgrass control are: March 1 in coastal and central areas and March 15-30 in Piedmont/Mountain areas. Goosegrass germinates approximately 3 to 4 weeks later than crabgrass. Annual bluegrass (annual biotypes) germinates in late summer into early fall when air temperatures drop consistently into the mid-70sF. This usually corresponds with September 15 to October 1 in coastal and central areas and September 1 to 15 in Piedmont/mountain areas. Germination is earliest in weak turf areas such as shade or wet conditions. Additional annual bluegrass germination also occurs in early winter with warm days and cold nights.

Adequate irrigation (0.25 in.) following herbicide application is necessary to ensure success. Benefin, oryzalin, pendimethalin, indaziflam, and prodiamine are not recommended on high traffic areas such as athletic fields, cart paths, par-three tees, and areas not well established. For these high traffic areas with goosegrass, use a product containing oxadiazon for annual grass control and simazine for broadleaf weed control. Many herbicides are formulated as "stand alone" products as well as on granules in combination with a dry fertilizer as "weed-and-feed" products. Fall seeded turfgrasses should not be treated with a preemergence herbicide until the following spring.

Preemergence Herbicide Efficacy Ratings (Refer to Herbicide Label for Specific Species and Use Listing)

Herbicide (trade name)	Crabgrass	Goosegrass	Annual bluegrass	Bittercress	Common Chickweed	FL Pusley	Foxtail, Yellow	Henbit	Lawn Burweed	Purslane	Phyllanthus sp.	Speedwell spp.	Spurges	Woodsorrel (Oxalis)
atrazine (Aatrex)	F^1	P	Е	Е	Е	G	P	Е	G	G	-	Е	G	F
benefin (Balan)	G-E	F	G-E	P	G	-	G	G	P	_	-	P	P	_
benefin+oryzalin (XL)	Е	F-G	G	P	G	G	G	G	_	G	-	_	F	F-G
benefin+trifluralin (Team)	F-G	F	G	_	G	-	G	G	-	-	-	-	F	F
bensulide (Betasan, PreSan)	G-E	P-F	F	P	P	-	G	P	P	F	-	P	-	_
bensulide + oxadiazon (Goose/Crab)	Е	G-E	G-E	_	G	-	G	_	_	_	-	_	G	_
dimethenamid (Tower)	G	F-G	-	G	G	G	-	G	-	G	-	-	G	G
dithiopyr (Dimension)	Е	G	G-E	G	G	_	G	G	F	F	_	G	G	G
fenarimol (Rubigan)	P	P	G-E	_	P	P	_	P	P	_	-	P	P	P
indaziflam (Specticle)	Е	Е	Е	G	_	-	G	-	-	-	-	-	-	
isoxaben (Gallery)	P-F	P	P-F	E	Е	F-G	P	G	E	G	-	G-E	G	G
mesotrione (Tenacity)	G	F-G	F	_	G	G	_	G	G	F	-	G	-	G
metolachlor (Pennant)	F-G	P-F	G	_	F	G	G	_	_	F	P	_	F	P
napropamide (Devrinol)	G-E	F	G	_	Е	P	-	P	Е	G	-	Е	P	G
oryzalin (Surflan)	E	F-G	G-E	P	G	G	G	G	F	G	-	P	F-G	G
oxadiazon + prodiamine	Е	G-E	G-E	G	G	G	G	G	F	G	F-G	G	G	G
oxadiazon (Ronstar)	G-E	Е	G-E	P	P	G	G	P	P	G	F-G	G	G	G
pendimethalin (Pendulum)	Е	F-G	G-E	G	Е	G	G	G	G	G	F-G	G-E	G	G
prodiamine (Barricade)	Е	F-G	G-E	G	G	G	G	G	F-G	G	F-G	F-G	G	G
pronamide (Kerb)	P-F	P	G-E	_	Е	-	G	F-G	P	G	-	Е	P	P
simazine (Princep T&O)	P-F	P	E	E	Е	G	G	E	G-E	G	-	Е	F-G	F

E=Excellent, >89% control; G=Good, 80 to 89% control; F=Fair, 70 to 79% control; P=Poor, <70% control; - = Data not available.

These are relative ratings and depend on many factors such as environmental conditions, turfgrass vigor or health, application timing, etc., and are intended only as a guide.