Winter weed control

Weed control varies depending on whether winter turf is overseeded or non-overseeded. Use these guidelines.

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■ Weeds in winter are unsightly due to their green color and leaf textural differences compared to brown-colored dormant turf. In addition, weeds shade the dormant turf, and thus may delay spring green-up.

Weed identification is the first step toward understanding why weeds occur and how to control them.

Understanding the biology, growth and reproductive characteristics of a weed is the second-most important step in developing a weed control strategy. Turf weakened by improper cultural practices, pest invasion, or excessive traffic is much more likely to become weed-infested and will take longer to recover.

Post-emergence broadleaf weed control—Broadleaf weeds such as chickweed, henbit, clover and dandelion have traditionally been controlled with single or combination applications of 2,4-D, 2,4-DP, MCPP, MCPA or dicamba (Table 1).

Several considerations before using one or more of these materials:

● Most broadleaf weeds, especially perennials, generally need a two- or three-way herbicide combination for satisfactory control.

● Younger weeds are easiest and cheapest to control. Applications should ideally be made in December. Waiting until March or April requires sequential applications 10-14 days apart. This: increases labor and herbicide costs, increases equipment wear-and-tear; may delay green-up; and may require longer for herbicides to work.

● New chemistry such as triclopyr (Turflon) and metsulfuron (DMC Weed Control) can be alternatives to the traditional materials. However, economics and turf tolerance must still be considered before use.

Post-emergence grassy weed control—In winter, the predominant annual grass weeds are annual bluegrass and clumps of ryegrass that escape from the intended overseeding site.

Annual bluegrass can be effectively controlled with post-emergents, assuming the turf is not overseeded with ryegrass or other cool-season grasses. In non-overseeded turf, atrazine (AAtrex), simazine (Princep) or pronamide (Kerb) will provide excellent control of annual bluegrass and ryegrass.

The first applications should be applied in middle to late fall; a second application in late January or early February will control the second flush of germination that normally occurs at this time.

Atrazine and simazine have the added benefit of controlling many winter annual broadleaf weeds such as lawn burweed, chickweed and henbit (Table 2). However, if control is attempted later in March or April, herbicide effectiveness is reduced, the time needed for weed control is greater, spring green-up may be delayed, and turf may be injured.

Non-overseeded turf—Chemically controlling winter weeds in non-overseeded turf is generally much easier and effective than weed control in overseeded turf because of a wider range of available herbicides.

In bermudagrass, centipedegrass, St. Augustinegrass and zoysiagrass, atrazine and simazine provide the widest spectrum of weed control at the most effective cost. These materials have pre-emergence activity, and they are just as effective on newly-germinated weeds. Applications should be in mid-fall and repeated 6-8 weeks later.

Atrazine and simazine provide good to excellent control of annual bluegrass and most winter annual broadleaf weeds on dormant bermudagrass or zoysiagrass. These materials are not recommended for early spring use. If a hard-to-control weed persists, Prompt (a pre-packaged atrazine/bentazon combination) can be used. Repeat applications 4-6 weeks later are recommended.

Annual bluegrass in non-overseeded bermudagrass and zoysiagrass is generally controlled by most pre-emergents. Or, early post-emergence control of annual bluegrass should be made in mid-fall with Kerb, atrazine or simazine. Applications should be repeated in 60 days for season-long control.

Post-emergence broadleaf control should also begin in mid-fall when weeds are small and easiest to control, and when temperatures are still relatively warm. A combination of 2,4-D plus 2,4-DP, MCPP, MCPA or dicamba will provide a wider spectrum of control. Repeat applications 7-14 days apart will be necessary.

Overseeded turf—Weed control in overseeded turf is more difficult because the growth habit and herbicide susceptibility of the overseeded ryegrass and annual bluegrass are similar. Until it is fully established, ryegrass is somewhat sensitive to many post-emergents.

Pre-emergence herbicide control choices are limited; each herbicide has its strengths and weaknesses:

Kerb provides good to excellent pre-emergence annual bluegrass control, but must be used 60-90 days before overseeding—mid-summer in most areas. High rates (2.5 to 4 lbs./1000 sq.ft.) of charcoal are necessary. Disadvantages of using Kerb are the inability to re-establish the ryegrass when the charcoal treatment fails, and activated charcoal is messy to handle and apply.

Rubigan, a fungicide with selective herbicide activity, also is available for pre-emergence annual bluegrass control without adverse effects to overseeded ryegrasses or bermudagrass. Best bluegrass control results from a series of two or three applications. The last application

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should be two weeks prior to overseeding. Multiple applications provide the best control, but require appropriate timing, multiple passes and careful planning.

Post-emergence annual bluegrass control is limited in overseeded situations, since Prograss is the only available material. To prevent undesirable turfgrass injury, Prograss should be used 30-45 days after overseeding when the bermudagrass is completely dormant. A subsequent application may be made—but not after January, or green-up may be delayed. Prograss is not recommended in subtropical areas like Florida where bermuda does not normally go completely dormant.

Post-emergence broadleaf weed control is also available with 2,4-D alone or combined with 2,4-DP, MCPP or dicamba. These should not be applied until the ryegrass has become fully established—generally, not until it has been mowed at least three times. Only the lowest recommended rate should be used on overseeded rye, and usually must be repeated in 10-14 days. Use these controls when temperatures are more than 40° F.

Basagran T/O can also be used to control selective annual winter broadleaf weeds, but generally is less effective on biennial or perennial weeds. Repeat applications may be required three weeks apart for complete control. Basagran T/O is not available for golf greens or collars.

A serious weed adjacent to many overseeded areas is the off-site movement of overseeded ryegrass seeds. If a pre-emergent is not used, either Kerb or DMC Weed Control may be used post-emergence. These must be applied early (December), or control efficacy is reduced and time required for control significantly increases.

Do not use Kerb, simazine, atrazine or DMC Weed Control on or up-slope of desirable overseeded ryegrass.

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Table 1 Southern turfgrass tolerance to post-emergence herbicides

Herbicide	Bahiagrass	Bermudagrass	Carpetgrass	Centipedegrass	St. Augustine	Zoysiagrass	Overseeded rye
atrazine (Aatrex +others)	NR	I[2]	I	S-I	S-I	I	D
Basagran T/O	S	S	S	S	S	S	S-I
2,4-D	S	S	I	S-I	S	S	S-I
2,4-D+dicamba	S	S	I	S-I	I	S	S-I
2,4-D +dichlorprop(2,4-DP)	S	S	I	S-I	I	S	I-D
2,4-D +MCPP	S	S	I	S-I	I	S	I-D
2,4-D + MCPP+ dicamba	S	S	I	S-I	I	S	I-D
2,4-D+MCPP+ 2,4-DP	S	S	I	S-I	I	S	I-D
dicamba (Banvel + others)	S	S	I	S-I	I	S	I
MCPA+MCPP+ 2,4-DP	S	S	I	S-I	I	I	I-D
MCPP	S	S	I	S-I	I	S	I
DMC weed control	D	S	NR	S-I	S-I	S	D
Kerb	NR	S	NR	NR	NR	NR	D
simazine (Princep+others)	NR	I[2]	I	S-I	S-I	I	D

S=safe at labeled rates; I=intermediate safety, use at reduced rates; D=damaging, do not use; NR=not registered for use on this turfgrass.

[1]Atrazine and simazine should be used on bermudagrass only during fall and early winter. Do not use during spring green-up.

Table 2 Susceptibility of broadleaf weeds to turf herbicides

Weed	Atrazine/ Simazine	2,4-D	Mecoprop (or MCPP)	Dicamba	2,4-D+ MCPP	2,4-D+ 2,4-DP	2,4-D+MCPP +dicamba	2,4-D+ triclopyr	DMC Weed Control
Florida betony	S-I	I	I	I-S	I	I	I-S	—	—
Hairy bittercress	—	S	I	S	S	S	S	—	—
Black medic	—	R	I	S	I	S	S	—	—
Burclover	—	I-R	S	S	S-I	S	S	—	—
Buttercups	I	S-I	I	I-R	S	S	S	—	—
Wild carrot	—	I	I	S	I	S-I	S	—	S
Common chickweed	S	R	S-I	S	S	S	S	S	S
Chicory	—	S	S	S	S	S	S	—	—
Cinquefoil	—	S-I	S-I	S-I	S-I	S-I	S-I	—	—
Hop clover	S	I	S	S	S	S	S	S	—
White clover	S	I	S	S	S	S	S	S-I	S
Dandelion	I-R	S	S	S	S	S	S	I-S	S
Wild garlic	—	S-I	R	S-I	S-I	S-I	S-I	—	S-I
Carolina geranium	—	S	S-I	S	S	S	S	—	S-I
Healall	—	S	R	S-I	S	S	S	—	—
Henbit	S	I-R	I	S	I	S-I	S	S	S-I
Ground ivy	—	I-R	I	S-I	I	I-S	S-I	—	—
Knawel	—	R	I	S	S-I	S-I	S	—	—
Wild mustard	S	S	I	S	S	S-I	S	—	I
Wild onion	—	I	R	S-I	I	I	S	—	S-I
Parsley-piert	S	R	S-I	S-I	S_I	R	S-I	S	—
Lawn pennywort	S	S-I	S-I	S-I	S-I	S-I	S-I	—	—
Pepperweed	—	S	S-I	S	S-I	S	S	—	—
Shepherd's-purse	—	S	S-I	S	S-I	S	S	—	—
Corn speedwell	S	I-R	I-R	I-R	I-R	I-R	I-R	—	—
Spurweed	S-I	I	S-I	S	S-I	I	S	S	—
India mock strawberry	—	R	S-I	I	R	S-I	—		
Thistles	—	S-I	I	S	S-I	S-I	S	—	I
Violet, johnny jumpup	—	I-R	I-R	S-I	I-R	I	I-R	—	—
Yellow rocket	—	S-I	I	S-I	S-I	S-I	S	—	—

S=Susceptible; I=intermediately susceptible, good control sometimes with high rates; however a repeat treatment three to four weeks later each at the standard or reduced rate is usually more effective; R=resistant in most cases. Not all weeds have been tested for susceptibility to each herbicide listed.