



## Weed Control Guide for Florida Lawns<sup>1</sup>

L. B. McCarty<sup>2</sup>

Weeds can simply be defined as unwanted plants or plants growing out-of-place. The proper identification and an understanding of growth habits of weeds are important in understanding the biology and best control strategy. Knowledge of whether or not weeds were previously present in a particular area will also help the homeowner prepare for control procedures in the future.

### PROPER MANAGEMENT FIRST

The first and best method of weed control begins with proper management practices which encourage a dense, thriving turf. Healthy turf shades the soil so sunlight can't reach weed seeds ready to germinate. A thick turf also minimizes the physical space available for weeds to become established. There are several management tools to consider when attempting to grow healthy grass.

#### Proper Cultivar Selection

The first management decision is whether the best turf species or variety is being grown for a particular area. For example, areas heavily shaded will support only a



areas heavily shaded.

few turfgrass species. Growing bermudagrass or bahiagrass under any shade will result in thin, weak turf which is very susceptible to weed invasion. Alternate grass choices for shady conditions would be specific cultivars of zoysiagrass, St. Augustinegrass, or centipede grass .

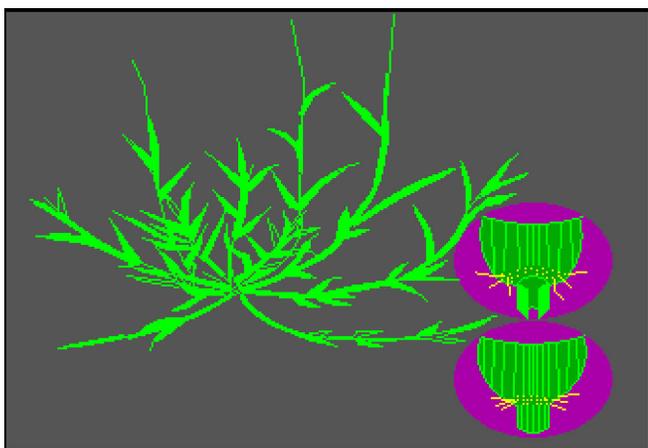
1. This document is Fact Sheet ENH-84, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. This information is included in the Florida Lawn Handbook, SP-45. For a copy of this handbook, request information on its purchase at your county extension office. First published: May 1991. Revised: January 1995.

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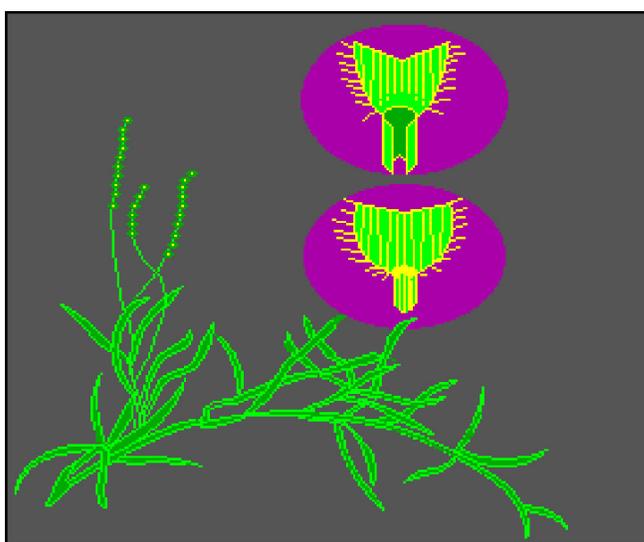
The use of trade names in this publication is solely for the purpose of providing specific information. It is not a guarantee or warranty of the products named, and does not signify that they are approved to the exclusion of others of suitable composition.

The term "plates," where used in this document, refers to color photographs that can be displayed on screen from CD-ROM. These photographs are not included in the printed document.

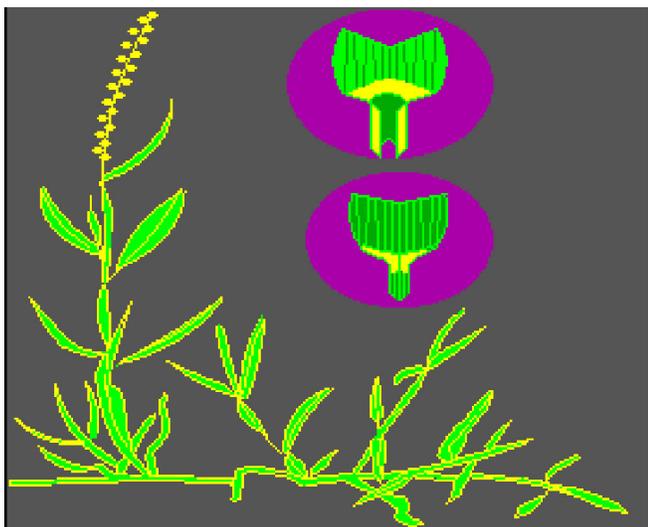
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zoysiagrass.



centipedegrass.



St. Augustinegrass.

### Proper Cultural Practices

Proper fertilizing, watering, mowing, and other pest control measures are required to produce the desirable turf stand. If a turf is overwatered and fertilized or mowed too low or too infrequently, the turf is weakened and cannot outcompete weeds. Damaged areas resulting from using unsharpened mowers increase the time needed for turf recovery.

### Traffic Control

Turf damaged by foot or vehicle traffic invites weeds. Turf compacted by excess traffic, especially when the soil is water saturated, cannot extract oxygen as well as under better growing conditions. Goosegrass, annual bluegrass, and certain sedges are weeds which grow well in compacted and/or continuously wet soil.

### Other Pest Control

Turf damaged by pests such as insects does not always recuperate quickly enough to outcompete germinating weeds. Specifically, tunneling from mole crickets disrupts the soil surface, enabling weed seeds to readily germinate and become established. Other insects and diseases can cause large patches of bare turf. These open areas are usually slow to recover, thus enabling weeds to become established. High nematode populations also thin the turf and make it less able to recuperate from environmental stresses. Weeds that often become established in nematode infested soil include spotted spurge and Florida pusley.



Florida pusley.

## WEED CONTROL

Areas adjacent to fine turf areas which are hard to mow such as fence rows or ditch banks often support a weed population. These weeds normally produce seed which reinfests the nearby turf. These areas should also receive weed control attention. Good sanitation practices should be followed, such as planting only certified seed, using weed-free sod, and the practice of washing off mowers used in weed infested areas before mowing in weed-free areas.

Weeds complete their life cycles in either one growing season (**annuals**), two growing seasons (**biennials**), or three or more years (**perennials**). Annuals that complete their life cycles from spring to fall are generally referred to as **summer annuals**, and those that complete their life cycles from fall to spring are **winter annuals**. Summer annual grasses, as a class, are generally the most troublesome weeds in turf. An excellent weed identification guide, *Weeds of Southern Turfgrasses*, SP 79, can be obtained through your local Cooperative County Extension office.

### Methods

**Encouraging turf growth.** Refer to section "Selection and Adaptability" in this publication. If weeds become established, several methods of control are also available.

**Mowing.** If proper mowing height and frequency are maintained, many annual weeds will be eliminated. Mowing prior to weed seedhead formation will also reduce weed seed reserves.

**Hand pulling or rogueing.** If only a few weeds are present, it's simpler and less time consuming to physically remove the plant, but if weeds are a major problem, other alternatives should be considered.

**Smothering.** Smothering with nonliving material to exclude light is effective in certain areas, such as flower beds, foot paths, or nurseries, where turf is not grown. Materials used in such manner include straw, sawdust, hay, wood chips, and plastic film. Care must be taken to prevent mowing accidents due to movement of these materials into a maintained turf area. To be effective, a minimum of 2 inches is

required when using natural mulch materials. Recently, synthetic mats impregnated with herbicides have been introduced to the landscape. These provide long-term weed control when properly used, but care must be taken to minimize desirable plant roots from encountering these layers.

**Herbicides.** A herbicide is any chemical which injures or kills a plant. Herbicides are safe and effective if product label instructions are followed. Label instructions include proper timing of application, proper rates, and dispersal methods. Timing of herbicide application during the plant's growth cycle also is important. For example, weeds not controlled prior to seedhead formation are harder to control and are able to deposit new seeds for future problems.

### Types of Weeds

**Broadleaves.** Broadleaves, or dicotyledonous plants, have net-like veins in their true leaves and usually have showy flowers. Examples include clovers, lespedeza, plantain, henbit, chickweed, Florida pusley, beggarweed, matchweed, and many others.

Plate 40. Southern Sida (*Sida acuta*)

Plate 41. White Clover (*Trifolium repens*)

Plate 42. Alternanthera (*Alternanthera paronychioides*)

Plate 43. Garden Spurge (*Chamaesyce hirta*)

Plate 44. Ground-ivy or Creeping Charlie (*Glechoma hederaces*)

Plate 45. Brazilian Pusley (*Richardia braziliensi*)

Plate 46. Asiatic Hawksbeard (*Youngia japonica*)

Plate 47. Slender Amaranthus (*Amaranthus viridus*)

Plate 48. Hairy Beggar's-tick (*Bidens alba*)

Plate 49. Spreading Dayflower (*Commelina diffusa*)

Plate 50. Pennywort or Dollarweed (*Hydrocotyle* spp.)

Plate 51. Creeping Indigo (*Indigofera spicata*)

Plate 52. Cutleaf-evening-primrose (*Oenothera laciniata*)

Plate 53. Yellow Woodsorrel (*Oxalis stricta*)

Plate 54. Matchweed, Mat Lippia or Match-head (*Phyla nodiflora*)

Plate 55. Niruri or Chamberbitter (*Phyllanthus urinaria*)

Plate 56. Florida Pusley (*Richardia scabra*)

Plate 57. Florida Betony or Rattlesnake Weed (*Stachys floridana*)

Plate 58. Puncturevine (*Tribulus terrestris*)



Plate 42.

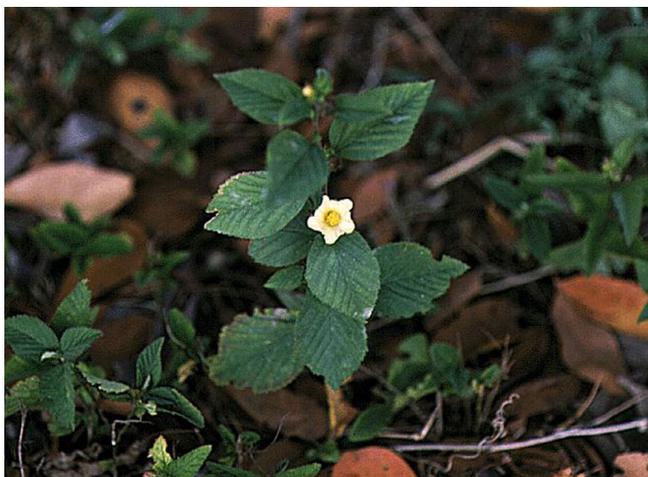


Plate 40.



Plate 43.



Plate 41.



Plate 44.

**Grasses.** Grasses are monocotyledonous plants that have only one seed cotyledon present when seedlings emerge from the soil. Grasses have hollow, rounded stems with nodes (joints), and parallel veins in their true leaves. Examples include crabgrass,



Plate 45.



Plate 48.



Plate 46.



Plate 49.



Plate 47.

goosegrass, crowfootgrass, dallisgrass, bullgrass, annual bluegrass, alexandergrass, cogongrass, torpedograss, and smutgrass.



Plate 50.

Plate 59. Sandspur or Coast Sandbur (*Cenchrus* spp.)

Plate 60. Crowfootgrass (*Dactyloctenium aegyptium*)

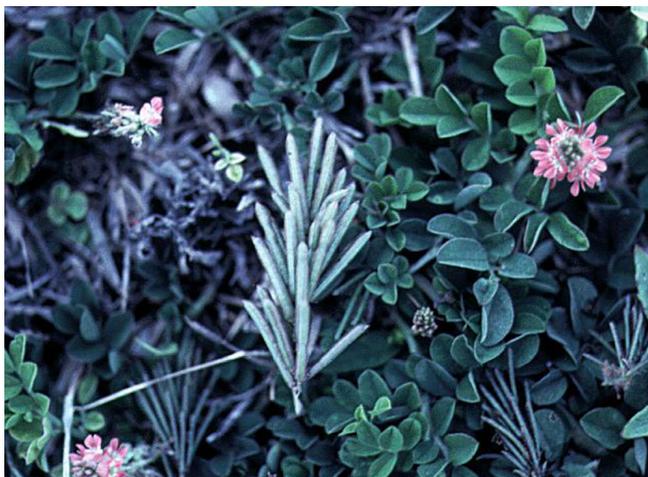


Plate 51.



Plate 54.



Plate 52.



Plate 55.



Plate 53.



Plate 57.

Plate 61. Blanket or Rabbitt Crabgrass  
(*Digitaria serotina*)

Plate 62. Goosegrass (*Eleusine indica*)

Plate 63. Thin or Bull Paspalum (*Paspalum setaceum*)

**Sedges/Rushes.** These generally either have stems which are triangular-shaped and solid (sedges)



Plate 58.



Plate 61.



Plate 59.



Plate 62.



Plate 60.



Plate 63.

or round and solid (rushes) and favor a moist habitat. Economically important members include yellow and purple nutsedge and, to some degree, globe, Texas, annual, and water sedge, plus path and beak rush and perennial kyllinga.

Plate 64. Nutsedge (*Cyperus* spp.)

Plate 65. Perennial Kyllinga (*Cyperus brevifolia*)

Plate 66. Globe Sedge (*Cyperus globulosus*)Plate 67. Purple Nutsedge (*Cyperus rotundus*)

Plate 64.



Plate 65.



Plate 66.



Plate 67.

### Herbicide Types

**Selective.** A selective herbicide controls certain plant species without seriously affecting the growth of other plant species. The majority of herbicides used are selective herbicides.

**Nonselective.** Nonselective herbicides control green plants regardless of species. These are generally used to kill all plants, such as in the renovation or establishment of a new turf area or as spot treatment or as a trimming material along sidewalks, etc. Glyphosate (Roundup) is an example of a nonselective herbicide.

**Contact.** Contact herbicides affect only the portion of green plant tissue that is contacted by the herbicide spray. These herbicides are not translocated or moved in the vascular system of plants. Therefore, these will not kill underground plant parts, such as rhizomes or tubers. Usually repeat applications are needed with contact herbicides to kill regrowth from these underground plant parts. Examples of contact herbicides include the organic arsenicals (MSMA, DSMA), bentazon (Basagran), glufosinate (Finale) and diquat (Diquat).

**Systemic.** Systemic herbicides are translocated in the plant's vascular system. The vascular system transports the nutrients and water necessary for normal growth and development. Systemic herbicides kill plants over a period of days. Examples of systemic herbicides include glyphosate (Roundup), 2,4D, dicamba (Banvel), imazaquin (Image), and sethoxydim (Vantage).

## Timing of Application

Two herbicide types in reference to timing of application are important.

**Preemergence.** Preemergence herbicides are applied prior to weed seed germination. Knowledge of weed life cycles is important, especially when herbicide application timing for preemergence control is attempted. If chemical application is after weed emergence, preemergence herbicides are generally ineffective. This narrow window of application timing is a potential disadvantage for many lawn care companies and homeowners, who often wait too late in the spring to correctly apply the preemergence herbicide. A general rule of thumb for preemergence herbicide application is February 1 in south Florida, Feb. 15 in central Florida, and March 1 in north Florida (day temperatures reach 65° to 70°F for 4 or 5 consecutive days). These application timings generally coincide with blooming of garden plants such as azalea and dogwood. If goosegrass is the primary weed species expected, wait 3 to 4 weeks later than these suggested application dates, since goosegrass germinates later than most summer annual grasses. For preemergence control of winter annual weeds such as annual bluegrass (*Poa annua*), apply herbicide when nighttime temperatures drop to 55° to 60°F for several consecutive days (early October for north Florida, late Oct. to early November for central and south Florida).

The timing of aerification and dethatching in the form of spiking, coring, or slicing should be prior to preemergence herbicide application. Preemergence herbicides form a uniform soil barrier. Disturbing the treated soil layer by methods such as aerification may disrupt the herbicide barrier and deposit a fresh supply of weed seeds on the soil surface. Therefore, herbicide effectiveness may be reduced. Adequate soil moisture before and after application is necessary to activate most preemergence herbicides. Preemergence herbicides are generally effective in controlling weeds from 6 to 12 weeks following application. For season-long control, an additional application should follow 9 weeks from the initial one. Refer to Table 1 for preemergence herbicides for use in Florida.

**Postemergence.** Postemergence chemicals are active on emerged weeds. Normally, *the younger the weed seedling, the easier it will be controlled.*

Postemergence herbicide effectiveness is reduced when the weed is under drought stress, has begun to head-out (produce seeds), or mowed before the chemical has time to work (several days after application). Avoid application when these detrimental growing conditions exist. Refer to Table 2 for postemergence herbicides for use in Florida.

## Fertilizer/Herbicide Mixtures

Many herbicides are formulated with a fertilizer as the carrier. Fertilizer/herbicide mixtures enable a "weed-n-feed" treatment in the same application or trip over the turfgrass. When using these products, it is important to determine if the manufacturer's recommended rate of the product supplies the amount of fertilizer needed by the turfgrass and the amount of herbicide that is required for weed control. Supplemental applications of fertilizer or herbicide may be required if the fertilizer/herbicide product does not supply enough fertilizer or herbicide to meet the fertility needs of the turfgrass or the amount of herbicide needed for weed control.

Turfgrass fertilizer/herbicide products should be used with caution near ornamentals. Products that contain dicamba, metsulfuron or atrazine can be absorbed by the roots of ornamentals and cause severe injury. Do not apply products that contain these over the root zone of ornamental trees and shrubs.

## Adjuvants

An adjuvant is a spray additive that enhances the performance or handling characteristic of a herbicide. Adjuvants include surfactants, crop oils, crop oil concentrates, antifoaming agents, drift control agents and compatibility agents. Surfactants, crop oils, and crop oil concentrates are added according to label directions since indiscriminate use may result in severe turfgrass injury or decreased herbicide performance. These additives do not improve the performance of preemergence herbicides and are used only with postemergence herbicides. Surfactants, crop oils, and crop oil concentrates are not always added to postemergence herbicides. Some herbicide

formulations have premixed surfactants and no additional surfactant is necessary. Commonly used agricultural surfactants are Surfactant WK, X77, and Latron AG98.

## WEED CONTROL PRIOR TO TURF ESTABLISHMENT

### Preplant Treatment

The best preplant weed control available for new turf sites is fumigation. Fumigating chemicals kill most weed seeds, insects, and nematodes. It is much easier to prevent weed establishment than try to eradicate them after emergence. Metham (Vapam) or dazomet (Basamid Granular) may be used by homeowners as a preplant herbicide treatment. These may be used with and without a plastic cover. If a cover is not available, cultivate the soil and keep moist for 1 week. Apply 1 to 2 pints of Vapam per 100 square feet using 2 gallons of water. Dazomet rate is 8 to 13 ounces of product per 100 square feet. Immediately irrigate to the depth control desired. If a cover is available, treat the soil in front of a rotary tiller. Cover the soil for 2 days after treatment. Planting may take place 14 to 21 days after treatment. *Read and follow all label recommendations to the letter.*

Existing weeds such as bermudagrass or nutsedge may be killed prior to grass establishment by using a nonselective material such as glyphosate (Roundup, Kleenup). Only emerged plants will be controlled with this chemical. Glyphosate has no soil residual effect and will have no activity on nongerminated seeds. Glyphosate (Roundup 4 pounds per gallon) is applied at 2 to 5 ounces per gallon of water and may require repeat treatments for complete control of perennial weeds such as bermudagrass. Glyphosate is a nonselective material and will injure most plants encountered. Use extreme caution when applying glyphosate around desired plants.

### Seeded Areas

Do not apply preemergence herbicides prior to or immediately following seeding of grasses such as common bermudagrass, bahiagrass, centipedegrass, or ryegrass. Due to their root pruning or seedling kill

mode of action, preemergence herbicides may be applied only after seeded grasses have emerged and are well established. A rule of thumb for timing is to make an application after the desired grasses are 2 to 3 inches tall or have begun to spread by runners (stolons). At this time, *half* the normal preemergence herbicide rate (Table 1) may be applied. Postemergence herbicides (Table 2) may also be applied at *one-half* rates at the same growth stage.

If a prior preemergence herbicide has been applied, wait 9 weeks before attempting seeding. Use a small test area to determine when the herbicide residues permit seedling growth.

### Sprigged, Sodded or Plugged Areas

Preemergence herbicides should be applied following signs of new growth at *half* the normal rate recommended for established grasses. Water should be applied to treated areas immediately to activate the herbicide. If herbicide is not applied soon after planting, weed seedlings will emerge and will be unaffected by preemergence herbicides. If over half the recommended herbicide rate is applied, severe root pruning may result to the desirable turf.

Atrazine 4EC is recommended at 1.5 fluid ounces per 1000 square feet as a preemergence treatment, but only for centipedegrass and St. Augustinegrass. Atrazine will provide good weed control and minimum damage to these grasses but will severely stunt or kill other lawn turf species.

Postemergence herbicides, in general, should not be applied until the grass is visibly growing and spreading. Mowing will help control most broadleaf weeds until the lawn is well established. Spot spraying of weeds should be practiced until establishment occurs. Use only half the recommended rate until the turf has matured.

## APPLICATION PROCEDURES

### Herbicides

**Proper rates.** To avoid injury to turfgrasses and ornamentals, apply proper rate of herbicide. Mark off 1000 square foot areas to apply herbicides. Apply herbicides in 1/2 to 1 gallon of water per 1000 square feet (approximately 20 to 40 gallons per acre).

**Applicators.** For increased application accuracy, air pressure type sprayers are preferred over hose-end type sprayers. For herbicides formulated as a granular, use a spreader and calibrate properly.

**Vapor drift.** Volatile vapor drift from 2,4D esters or spray drift from 2,4D amines, dicamba, or other phenoxy or benzoic acid compounds may damage sensitive plants such as ornamentals, trees, vegetables, or fruits. Amine forms of phenoxy can be used with greater safety near sensitive plants.

**Equipment.** Do not apply insecticides or fungicides or other herbicides with equipment used for 2,4D, due to the difficulty of removing this herbicide from most sprayers.

## Pesticides

**Labels.** Observe all directions, restrictions, and precautions on pesticide labels. It is dangerous, wasteful, and illegal to do otherwise.

**Storage.** Store pesticides behind locked doors in original containers with label intact, separate from seed, fertilizer, and other pesticides.

**Dosage.** Use pesticides at correct dosage and intervals to avoid illegal residues or injury to plants and animals.

**Disposal.** Dispose of used containers in compliance with label directions so that contamination of water and other hazards will not result.

**Clothing.** Always wear protective clothing when applying pesticides. At a minimum, wear a long-sleeved shirt, long-legged pants, rubber gloves, boots (never go barefoot or wear sandals), eye protection, and a wide-brimmed hat.

**Handling.** Never eat, drink, or smoke when handling pesticides, and always wash with soap and water after use.

**Rinsing.** Triple rinse a container that has been emptied into the spray tank. Never pour pesticides down a drain or into an area exposed to humans, animals, or water.

## Useful Conversions

- gallon/acre = 2.93 oz/1000 sq ft
- 1 acre = 43,560 sq ft
- 100 gal/acre = 2.3 gal/1000 sq ft = 1 qt/100 sq ft
- 1 liter = 1000 milliliters (ml) = 1.058 qts
- 100 lbs/acre = 2.3 lbs/1000 sq ft
- 1 lb = 453.6 grams = 16 oz
- 1% by volume = 10,000 ppm = 10 grams/liter = 1.33 oz by weight/gallon of water
- 1 kilogram (kg) = 1000 grams (g) = 2.2 lbs

**Table 1.** Preemergence herbicides for weed control in turf.

Turfgrasses	Weeds Controlled	Herbicide	
		Common Names	(Trade Name Examples)
St. Augustinegrass, bahiagrass, centipedegrass, bermudagrass, zoysiagrass	Crabgrass, goosegrass, crowfootgrass, annual bluegrass, Florida pusley, woodsorrel, spurges	Benefin DCPA Napropamide Bensulide Oryzalin Benefin + oryzalin Benefin + trifluralin Pendimethalin Dithiopyr Prodiamine	(Balan) (Dacthal) (Devrinol) (Betasan, PreSan) (Surflan) (XL) (Team) (Pre-M) (Dimension) (Barricade)
<p><b>Remarks:</b> Follow label instruction for a specific product. Do not apply to immature turf, sodded, or newly sprigged areas. For continued summer weed control, repeat application 9 weeks after the initial. Delay reseeding 6-16 weeks after application. Several of these are also available on a fertilizer carrier. Do not overtreat by making several trips around trees and shrubs, and do not use these mixtures each time the lawn needs fertilizer. Do not use weed/feed fertilizers once weed seedlings germinate. Use a straight fertilization source when fertility is the objective at this time.</p>			
St. Augustinegrass, bermudagrass, zoysiagrass	Crabgrass, goosegrass, purslane, woodsorrel, carpetweed, annual bluegrass	Oxadiazon	(Ronstar)
<p><b>Remarks:</b> For use by commercial turf and landscaping personnel only. May cause temporary turf discoloration. Do not apply to wet turf. Irrigate after application to increase effectiveness. Do not apply to newly established turf. Delay reseeding for 4 months following treatment. Oxadiazon is the safest preemergence herbicide to use on newly sprigged or sodded areas.</p>			
Centipedegrass, St. Augustinegrass, zoysiagrass	Annual bluegrass, corn speedwell, chickweed, henbit, hop clover, spurweed, pennywort, and crabgrass	Atrazine Isoxaben	(Aatrex & others) (Gallery)
<p><b>Remarks:</b> Atrazine may be applied for pre- and postemergence broadleaf weed control in St. Augustinegrass, centipedegrass, and zoysiagrass. Young plants are easiest to control. Avoid application during greenup. May be used in newly sprigged, sodded, or plugged turf areas with minimum retardation of growth resulting. Do not use under the drip line of trees, shrubs, palms, and ornamentals. May cause yellowing of bahiagrass. For pennywort control, apply in fall and repeat 3-4 weeks later. Complete control may take more than 1 year. A pre-packaged mixture of atrazine and bentazon is available as Prompt. Prompt generally provides superior control over atrazine alone once weeds have emerged. Repeat applications spaced 3 weeks apart may be necessary for complete control.</p>			
<p>Isoxaben provides preemergence control of many broadleaf weeds but must be tank-mixed with other herbicides to control annual grassy weeds. It is also labeled for bermudagrass and bahiagrass.</p>			
<p><b>NOTE:</b> Numerous commercial trade names may be available to the homeowner other than those listed. Some of the herbicides listed are Restricted. Do not use pesticides requiring a pesticide license to buy and use. Some herbicides listed are not available in small quantities. The homeowner is advised to consult a pest control operator for commercial application.</p>			

**Table 2.** Herbicides for postemergence weed control in turf.

		Herbicide	
Turfgrass	Weeds Controlled	Common Names	(Trade Name Examples)
Centipedegrass	Crabgrass, goosegrass, and other annual grasses	Sethoxydim	(Vantage)
<p><b>Remarks:</b> Apply before weedy grasses exceed 4 inches in heights. <b>Do not</b> apply to any desirable turfgrasses except <b>centipedegrass</b>. For bahiagrass and bermudagrass suppression, repeat treatment 10-14 days after the first application. Do not mow within 7 days before or after application, nor make more than 2 applications per season. Do not apply to grass under moisture, mowing (scalping), or cold temperature stress.</p>			
Bermudagrass, zoysiagrass	Crabgrass, goosegrass, dallisgrass, and nutsedge	MSMA CMA	--- ---
<p><b>Remarks:</b> Repeat applications at 7- to 10-day intervals are necessary. Discoloration of Tifgreen 328 and Tifdwarf will occur. Use only when soil moisture is adequate and temperatures are below 85°F. <b>Do not</b> use on St. Augustinegrass, centipedegrass, or bahiagrass turf.</p>			
Tifway (419) bermudagrass, St. Augustinegrass	Crabgrass, goosegrass, bullgrass, sandbur	Asulam	(Asulox)
<p><b>Remarks:</b> Do not apply to freshly mowed turf or turf under moisture or mowing (scalping) stress. Application during hot (&gt;80°F), dry weather normally results in turf phytotoxicity and should be avoided.</p>			
Bermudagrass, zoysiagrass, bahiagrass, centipedegrass	Wild garlic/onion, dandelion, clover, plantains, and other broadleaf weeds	2,4-D amine + dicamba + MCPP and/or 2,4-DP	(Many formulations and trade names available)
<p><b>Remarks:</b> Apply to young, actively growing weeds. Repeat application at 2 weeks, if necessary. Do not spray in temperatures above 80°F. Avoid drift. For wild garlic/onion control, add a commercial surfactant and treat in early December. Follow with a repeat application in February and schedule this for 3 consecutive years. Caution: use only when there is no air movement. Do not use within the root zone of ornamentals. Most woody shrubs, ornamentals, and trees are highly sensitive to these materials. Read and follow all instructions and warnings on product labels before use. Although labeled for use on St. Augustinegrass, 2,4D has caused considerable injury to it, especially during periods of hot weather. Therefore, it is suggested not to use products containing 2,4D on St. Augustinegrass unless some degree of turf injury is acceptable. The addition of dicamba, MCPP and/or 2,4DP to 2,4D will increase weed control but also increase the potential of turf discoloration. Refer to atrazine in Table 1 for postemergence broadleaf weed control in St. Augustinegrass, centipedegrass, or zoysiagrass as this should be the first herbicide used for broadleaf weed control in these turfgrasses.</p>			
Bahiagrass, bermudagrass, centipedegrass, St. Augustinegrass	Yellow nutsedge, globe sedge, annual sedge	Bentazon	(Basagran T, Basagran O)
<p><b>Remarks:</b> Apply to actively growing yellow nutsedge under good moisture conditions. Repeat application may be necessary. Do not mow 3-5 days prior to or after application. Will also control other nutsedges, except purple nutsedge.</p>			
Bermudagrass, centipedegrass, St. Augustinegrass, zoysiagrass	Purple nutsedge, sandbur, wild garlic	Imazaquin	(Image)
<p><b>Remarks:</b> Do not apply to newly seeded, sodded, or sprigged areas, or golf greens. Not labeled for use on bahiagrass. Use only on well-established, green, actively growing turfgrass.</p>			