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## Bringing the University to You!

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Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.



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# Controlling Weeds in Home Lawns

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**http://osufacts.okstate.edu**

Weeds are the most common pest in turfgrass areas. They destroy the appearance of our turf and weaken it by stealing space, nutrients, water, and light. Chemical weed killers (herbicides) are effective tools for controlling weeds in turfgrass, but repeated occurrence of weeds may reflect underlying problems of turfgrasses that are not correctable with herbicides. Frequently, weeds germinate and become established when the turf coverage is thin or broken due to some environmental condition, such as excessive drought or winter injury, uncontrolled insect or disease infestations, and/or improper maintenance activities. Thus, the most important step in controlling weeds in turfgrass is a management program that produces a dense, vigorous, healthy turf. This can only be accomplished by growing a turfgrass variety adapted to your conditions and by properly mowing, watering, and fertilizing. For complete information on correctly caring for your lawn, see Fact Sheet F-6420 "Lawn Management in Oklahoma." The information below was prepared to describe how to effectively control weeds with herbicides.

## Weeds

Identifying weeds is the first step in effective herbicide control. Most herbicides control only certain kinds of weeds, so identifying your weed problem is critical in selecting the appropriate herbicide. You may not be able to positively identify your weeds, but distinguishing whether they are grassy or broadleaf will frequently be sufficient information for selecting the right herbicide. All grassy weeds have long, narrow leaves with straight veins running parallel the full length of the leaf. Broadleaf weeds have broader leaves with veins arranged in a branching or net-like pattern.

Identifying your weed problem also will help you in knowing the life cycle of weeds and the stage of growth in which they are most susceptible to herbicides. Applying postemergence herbicides on weeds in the correct stage of growth is just as critical as identifying the weed and choosing the right herbicide: emerged summer weeds are most effectively controlled in May and June and emerged winter weeds are most effectively controlled in October and November. Annual weeds complete their life cycle in one growing season. They come back each year from seed. There are annual weeds that grow in the summer and produce seeds in the fall, and there are annual weeds that grow in the winter and produce seeds in late spring or early summer.

### Summer Annual Weeds

Summer annual weeds germinate in the spring and typically die with the first hard frost in the fall. Examples of commonly found summer annual grassy weeds include crabgrass, foxtails, goosegrass, and sandbur. Crabgrass and foxtails are consistently controlled in all established turfgrasses by applications of preemergence herbicides by March 15 to April 1. Most summer annual grassy weeds can be safely controlled in established bermudagrass, buffalograss, and Kentucky bluegrass by applications of organic arsenicals (AMA, DSMA, MSMA, etc.) soon after their emergence in May and June.

Examples of commonly found summer annual broadleaf weeds include asters, carpetweed, knotweed, puncture vine, common purslane, and spotted spurge. Most summer annual broadleaf weeds can be safely controlled in established bermudagrass, Kentucky bluegrass, centipedegrass, perennial ryegrass, tall fescue, and zoysiagrass by applications of 2,4-D, Banvel (dicamba), MCPP (mecoprop) combinations (Trex-San, Trimec, 33-Plus, etc.) soon after their emergence in May and June.

### Winter Annual Weeds

Winter annual weeds germinate in late September and October and die the following summer. Examples of commonly found winter annual grassy weeds include annual bluegrass, cheat, downy brome, little barley, and rescuegrass. Annual bluegrass is consistently controlled in all established turfgrasses by applications of preemergence herbicides by September 15. Most winter annual grassy weeds also can be controlled in established bermudagrass by applications of Kerb (pronamide) soon after their emergence in October and November. Annual bluegrass and other winter annual weeds also can be controlled in established dormant bermudagrass by applications of Roundup (glyphosate) in December and January.

Examples of commonly found winter annual broadleaf weeds include chickweed, dwarf fleabane, and henbit. Most winter annual broadleaf weeds can be safely controlled in established bermudagrass, Kentucky bluegrass, centipedegrass, perennial ryograss, tall fescue, and zoysiagrass by applications of 2,4-D, Banvel, MCPP combinations (Trex-San, Trimec, 33-Plus, etc.) soon after their emergence in October and November.

### Perennial Weeds

Perennial weeds have the capacity to reproduce by seeds and underground plant parts such as rhizomes, nutlets, and bulbs. Generally, perennial weeds are more difficult to control than annual weeds because of their ability to "come back" from underground plant parts. Clovers, curly dock, dandelion, plantains, spring beauty, wild garlic, and woodsorrel are examples of perennial broadleaf weeds. These weeds are most effectively controlled in established bermudagrass, Kentucky bluegrass, centipedegrass, perennial ryograss, tall fescue, and zoysiagrass by applications of 2,4-D, Banvel, MCPP combinations when weeds are young and actively growing. Dallisgrass is a perennial grassy weed and yellow nutsedge (nutgrass) is a perennial grass-like weed. Control Dallisgrass in established bermudagrass, buffalograss, and Kentucky bluegrass by applications of organic arsenicals (AMA, DSMA, MSMA, etc.) in May and June. Control yellow nutsedge in May and June with applications of organic arsenicals or Basagran (bentazon). Applications of Basagran are safe on established bermudagrass, bluegrass, centipedegrass, fescue, ryegrass, and St. Augustinegrass.

## Herbicides

One method of classifying herbicides is by the stage of growth the weed is in when the herbicide is applied. Preemergence herbicides were designed to control weeds as they germinate in the soil, before they emerge in the turf. Postemergence herbicides are applied after weeds emerge, preferably while they are young and actively growing.

## Preemergence Herbicides

Most preemergence herbicides give effective control of crabgrass, foxtails, annual bluegrass, and chickweed. A few other grassy and broadleaf weeds are controlled with specific preemergence herbicides. Some preemergence herbicides include Dacthal (DCPA), Balan (benefin), Betasan (bensulide), Princep (simazine), Purge (atrazine), Surflan (oryzalin), Kerb (pronamide), Devrinol (napropamide), and various herbicide and fertilizer combinations, formulated for the home owner. See Extension Fact Sheet F-6423 "Controlling Grassy Weeds in Home Lawns," for more information.

Correctly applying preemergence herbicides is just as important as knowing which weeds they control. The proper steps to ensure successful weed control with preemergence herbicides are listed below.

1. TIMING. Most preemergence herbicides will not control weeds that have germinated prior to application.

   Therefore, try to apply these herbicides several weeks before germination. If they are applied too soon before germination, the herbicide may lose its effectiveness too early in the season. Apply preemergence herbicides by March 15 to April 1 for the control of crabgrass and foxtails and by September 15 for the control of annual bluegrass and chickweed. Specific dates for applications of preemergence herbicides are difficult to give due to varying environmental conditions for each location and year. Normally, crabgrass does not germinate in the spring before Redbud is past full bloom.
2. TURF PREPARATION. To ensure the preemergence herbicide of getting into the soil where weed seed is located, remove excessive layers (thicker than 0.5 inch) of thatch, and also remove debris such as leaves and cuttings before you apply the herbicide.
3. AMOUNT. Always read the label and apply the recommended amount on your lawn. Check the label to see that the herbicide is safe for use on your lawn. For example, never apply Kerb, Princep (simazine), Purge (atrazine), or Surflan on cool-season turfgrasses.
4. COVERAGE. Achieve a complete, uniform coverage by dividing the recommended amount of granular herbicide into two equal portions and spreading each in opposite directions. For adequate coverage, make spray applications at approximately 30 gallons per acre or approximately 3 quarts per 1000 $ft^2$.
5. ACTIVATION. Water in the preemergence herbicide if 0.5 inch of rain does not occur within 24 to 48 hours following application. All preemergence herbicides are soil applied and must be "washed" into the soil where weed seeds are located.
6. SECOND APPLICATION. A second application may be required for season-long control. This will depend on the particular herbicide and environmental conditions, but preemergence herbicides generally remain effective for 60 to 110 days.
7. USE DURING ESTABLISHMENT. Most preemergence herbicides will stunt above-ground stems and reduce rooting of seedings, sod, plugs, or sprigs. However, preliminary research indicates that Ronstar can be safely applied on newly sodded, plugged, or sprigged common type bermudagrass lawns. Do not apply preemergence herbicides after July 1 in areas that will be overseeded with perennial ryegrass in September.

### Postemergence Herbicides

Postemergence herbicides are effective for grassy and broadleaf weed control. All postemergence herbicides are termed either selective or non-selective. Selective postemergence herbicides control certain weeds without injury to desirable turfgrasses when applied according to label instructions. Examples of selective postemergence herbicides include the organic arsenicals (DSMA, MSMA, AMA, etc.), 2,4-D, Banvel, and MCPP. Non-selective postemergence herbicides kill or injure most green, actively growing plants. Examples of non-selective postemergence herbicides include Roundup and Ortho Diquat Herbicide H/A (diquat).

All postemergence herbicides also can be termed either systemic or contact. Systemic postemergence herbicides are absorbed by plants and translocated to all plant parts, including underground bulbs, nutlets, and rhizomes. Perennial weeds, with underground plant parts, are most effectively controlled with systemic postemergence herbicides. Examples of systemic postemergence herbicides include 2,4-D, Banvel, and MCPP. The organic arsenicals are slightly systemic. The contact herbicides kill or injure only those plant parts they directly contact. Small annual weeds can be controlled with contact herbicides. Examples of contact herbicides include Diquat and Phytar 560 (cacodylic acid).

Postemergence herbicides are generally foliar applied and absorbed, so they must remain on the leaf surface for



**Table 2. Recommended herbicides for Effective Weed Control on Turf**

| | PREEMERGENCE HERBICIDES | | | | | | | | | | POSTEMERGENCE HERBICIDES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMMON WEEDS FOUND IN OKLA | Balan (benefin) | Betasan (bensulide) | Dacthal (DCPA) | Devrinol (napropamide) | Kerb (pronamide) | Princep (simazine) | Purge (atrazine) | Ronstar (oxadiazon) | Sencor (metribuzin) | Surflan (oryzalin) | AMA, CMA, DSMA, MSMA | Basagran (bentazon) | Diquat | Roundup (glyphosate) | 2, 4-D | Banvel (dicamba) | MCPP (mecoprop) | 2, 4-D + Banvel (dicamba) | 2, 4-D + MCPP | 2, 4-D + Banvel + MCPP |
| Annual Bluegrass | P | P | | | P/Po | P/Po | Po | P | Po | P | | | Po | Po | | | | | | |
| Asters | | | | | | | | | | | | | | | Po | | | Po | Po | Po |
| Carpetweed | | | P | | | | | P | | P | | | | | Po | Po | | Po | Po | Po |
| Cheatgrass | | | | | P/Po | P | Po | | Po | | | | Po | | | | | | | |
| Common chickweed | P | | P | | P | P/Po | Po | | Po | P | | | | Po | | Po | | Po | | Po |
| Clover | | | | | | | Po | | | | | | | | | Po | Po | Po | Po | Po |
| Crabgrass | P | P | P | P | | | | P | | P | Po | | | | | | | | | |
| Curly Dock | | | | | | | | | | | | | | | | Po | | Po | | Po |
| Dallisgrass | | | | | | | | | | | Po | | | | | | | | | |
| Dandelion | | | | | | | | | | | | | | | Po | | Po | Po | Po | Po |
| Downy brome | | | | | P/Po | P | Po | | Po | | | | Po | | | | | | | |
| Dwarf Fleabane | | | | | | | | | | | | | | | Po | | | Po | Po | Po |
| Foxtails | P | P | P | | | | | P | | P | Po | | | | | | | | | |
| Goosegrass | | | | P | | | | P | Po | P | Po | | | | | | | | | |
| Henbit | P | | | | | P/Po | Po | | Po | | | | | Po | | Po | | Po | | Po |
| Knotweed | | | | | | | | | | | | | | | | Po | | Po | | Po |
| Little barley | | | | | P/Po | | | | | | | | Po | Po | | | | | | |
| Plantain | | | | | | | | | | | | | | | Po | | | Po | Po | Po |
| Puncture Vine | | | | | | | | | | | | | | | Po | | | Po | Po | Po |
| Purslane (common) | | | P | | | | | P | | P | | | | | | Po | | Po | | Po |
| Rescuegrass | | | | | P/Po | P | Po | | Po | | | | Po | | | | | | | |
| Sandbur | | | | | | | | | | | Po | | | | | | | | | |
| Spotted spurge | | | | | | | | | | | | | | | | Po | | Po | | Po |
| Spring beauty | | | | | | | | | | | | | | | Po | | | Po | Po | Po |
| Wild Garlic | | | | | | | | | | | | | | | | | | | Po | Po |
| Woodsorrel | | | | | | | | P | | | | | | | | | | | | Po |
| Yellow nutsedge | | | | | | | | | | | Po | Po | | | | | | | | |

[1]Portions of this table were developed from Chemical Control of Plant Diseases, Weeds, and Insects for Turfgrass, Publication 456-013, Extension Division, Virgiania Tech, Blacksburg, VA and Turfgrass Research with Herbicides, B. J. Johnson, University of Georgia, Experiment, GA.

[2]Weeds controlled from preemergence treatments are represented with P and those from early postemergence treatments are represented with Po.

The pesticide information presented in this publication was current with federal and state regulations at the time of printing. The user is responsible for determining that the intended use is consistent with the label of the product being used. Use pesticides safely. Read and follow label directions. The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Cooperative Extension Service is implied.

**Table 1. (cont'd)**

| Herbicide | Common Chemical Name | Recommended Use (always read and follow label instructions) | Other Comments |
|---|---|---|---|
| Roundup | glyphosate | Non-selective, postemergence control of most weeds. Use for trimming and edging, spot weed control, and for control of weeds in lawn areas being established or renovated. Also, for control of annual winter weeds in dormant bermudagrass. | Avoid contact with foliage, green stems, or fruit of crops, desirable plants, and trees, since severe injury or destruction may occur. Nonionic surfactants which are labeled for use with herbicides may be used to improve wetting of foliage. Allow 7 or more days before tillage. |
| Sencor | metribuzin | Selective, postemergence control of winter annual weeds and goosegrass in established bermudagrass, which has a mowing height of 0.5 inches or greater. | Sencor is recommended (label) for application by commercial applicators only on established bermudagrass. Can be tank mixed with MSMA. Applications should not be made to dormant turf in the transitional bermudagrass growing zones which are or can be expected to be adversely affected by cold weather. Do not apply within the drip line of ornamentals, shrubs, and trees. |
| Surflan | oryzalin | Selective, preemergence grassy weed control in established bermudagrass. | Make applications at label rates and thoroughly water to wash herbicide down into the soil surface. Surflan will not harm nearby established ornamentals, trees, and shrubs. |
| 2,4-D | 2,4-D | Selective, postemergence broadleaf weed control in established bermudagrass, Kentucky bluegrass, fescue, and zoysiagrass. | Effective weed control normally involves 2 to 4 spray applications, spaced 10 to 14 days apart. Do not apply when air temperatures exceed 85°F or are so low as to prevent active weed growth. Drift of spray or vapor will damage or kill desirable vegetation. The amine salt and low volital ester formulations are safest because they issue the least amount of vapors. |



24 to 48 hours following application for adequate absorption. Do not mow several days before or after herbicide application to ensure satisfactory leaf area. Generally, the addition of surfactants (spreader-sticker) to spray solutions of herbicide products that do not contain them will aid in the herbicide solution covering and adhering to the foliage. For adequate coverage, make spray applications at 3 quarts to 1 gallon per 1000 $ft^2$ or 30 to 40 gallons per acre.

Granular postemergence herbicides must also remain on the leaf surface. Apply these herbicides when the foliage is wet, such as in the morning, to increase the adherence of the granules to the foliage as an aid to herbicide absorption. Achieve a complete, uniform coverage by dividing the recommended amount of granular herbicide into two equal portions and spreading each in opposite directions.

### 2,4-D, Banvel (dicamba), MCPP (mecoprop).

These postemergence herbicides, which are selective and systemic, are used for the control of most winter and summer broadleaf weeds in turf. To increase the number of different kinds of weeds they control, many broadleaf weed killers are a mixture of these herbicides. These herbicides are safe on established bermudagrass, Kentucky bluegrass, centipedegrass, tall fescue, perennial ryegrass, and zoysiagrass.

Two related chemicals are 2,4-D and MCPP. Both are relatively immobile in the soil and pose little threat to nearby trees and shrubs from root absorption. Most chemical residue in the soil is dissipated in three to four weeks. However, shrubs, trees, and vegetables can be damaged by drifting vapors or spray from 2,4-D, so use caution when spraying them around susceptible plants and choose a time when the wind is minimal. The amine salts are safest around susceptible plants during hot weather. Low volatile esters can be used during the early spring and late fall when the highest day temperature does not exceed 60° to 70°F. Try not to apply these herbicides when the air temperature exceeds 85°F or is so low as to prevent active weed growth. These herbicides are not safe on newly established turf when applied at the recommended rate for established turf areas.

Banvel is commonly added to broadleaf weed killer herbicides to control tough weeds, such as henbit and knotweed. Banvel is mobile in the soil and can be absorbed by roots of ornamentals and trees leading to their injury or death. Therefore, never apply Banvel or broadleaf weed killer herbicides containing Banvel within the drip line of ornamentals and trees.

Commonly, effective weed control with 2,4-D, Banvel, MCPP combinations involves more than one application. Two to four applications, spaced 10 to 14 days apart, may be necessary for satisfactory results. See Fact Sheet F-2654 "Broadleaf Weed Control in Home Lawns," for more information on controlling broadleaf weeds.

**Organic Arsenicals**. The organic arsenicals (DSMA, MSMA, AMA, etc.) are primarily used to control summer grassy weeds such as crabgrass, Dallisgrass, foxtails, goosegrass, nutsedge (a grass-like weed), and sandbur soon after their emergence in May and June. These postemergence herbicides are selective and slightly systemic. Effective weed control normally involves two to four spray applications, spaced 10 to 14 days apart. The ideal temperature range for effective weed control from these herbicides with minimal risk of injuring your lawn is between 80° and 90°F. The organic arsenicals are safe for use on established bermudagrass, buffalograss, and Kentucky bluegrass when applied according to label instructions. Tall fescue and zoysiagrass have marginal tolerance, so injury can occur. Never apply organic arsenicals on centipedegrass or St. Augustinegrass. The organic arsenicals are rapidly inactivated in the soil.

**Kerb (pronamide).** Annual bluegrass, little barley, rescuegrass, cheat, downy brome, and other winter grassy weeds can be controlled in bermudagrass soon after their emergence in October and November. Kerb is a selective systemic herbicide, which has preemergence and postemergence activity. Effective weed control may involve more than one application. Since Kerb is root absorbed, "wash" this herbicide into the soil with $^1/_2$ inch of water within 24 to 48 hours following application. Never apply Kerb on tall fescue, Kentucky bluegrass, or perennial ryegrass lawns.

### Non-selective Herbicides

Dowpon-M (dalapon) and Roundup are non-selective postemergence herbicides, which are Systemic. These are the most effective herbicides for control of tough perennial weeds. When applied at recommended label rates, Dowpon-M persists in the soil for three to four weeks, while Roundup persists in the soil for several days. Dowpon-M is labeled for weed control in non-crop areas, such as roadsides, fence rows, and drainage ditches. Roundup is labeled for the control of weeds prior to turfgrass establishment or renovation, trimming and edging, spot weed control, and for annual winter weed control in dormant bermudagrass.

Ortha Diquat Herbicide H/A and Phytar 560 are nonselective postemergence herbicides, which are contact. These herbicides are most effective in controlling young annual weeds. These herbicides are rapidly inactivated in the soil. Ortho Diquat Herbicide H/A is labeled for winter weed control in dormant bermudagrass, and Phytar 560 is labeled for weed control along sidewalks, driveways, ornamentals, fences, and buildings and for use during lawn renovation.

There are other kinds of weed and grass killers and spot weed killers. Always read and follow label instructions. Never allow spray or drift to come in contact with desirable plants.

Tables 1 and 2 will aid you in choosing the best herbicide for your particular weed problem and correctly applying it for effective weed control. See Current Report CR-6422 for a partial listing of herbicides that are registered in Oklahoma for use on turf.

**Table 1. Turf Herbicides**

| Herbicide | Common Chemical Name | Recommended Use (always read and follow label instructions) | Other Comments |
|---|---|---|---|
| AMA | ammonium methanearsonate | Selective, postemergence summer grassy weed control in established bermudagrass, buffalograss, and Kentucky bluegrass. | Effective weed control normally involves 2 to 4 spray applications, spaced 10 to 14 days apart . The ideal temperature range for application is from 80 to 90˚F. Tall fescue and zoysiagrass have marginal tolerance, so injury can occur. Never apply on centipedegrass or St. Augustinegrass. Addition of surfactant is helpful, if not included in the product. |
| Balan | benefin | Selective, preemergence grassy weed control in all established lawn grasses found in Oklahoma. | Balan is labeled for professional use. There are many granular herbicide and fertilizer combinations that contain benefin (Balan) on the market. Make applications at label rates and thoroughly water to wash herbicide down into the soil surface. Balan will not harm most nearby established ornamental trees and shrubs. |
| Banvel | dicamba | Selective, postemergence broadleaf weed control in established bermudagrass, Kentucky bluegrass, centipedegrass, perennial ryegrass, tall fescue, and zoysiagrass. | Banvel is mobile in the soil and can be absorbed by roots of ornamentals and trees leading to their injury or death. Never apply Banvel or herbicides containing Banvel within the drip line of ornamentals and trees. |
| Basagran | bentazon | Selective, postemergence control of yellow nutsedge in bermudagrass, bluegrass, centipedegrass, fescue, ryegrass, and St. Augustinegrass. | Apply when there are good soil moisture conditions. If needed, make additional applications at intervals of 10 to 14 days. Apply no more than 3 quarts Basagran per acre in one season. Avoid over-the-top spraying of adjacent ornamentals and trees. |
| Betasan, Betamec-4 Pre-san, etc. | bensulide | Selective preemergence grassy weed control in all established lawn grasses found in Oklahoma. | Betasan is labeled only for sale to use, and storage by service persons. There are several granular herbicide and fertilizer combinations that contain bensulide (Betasan) on the market. Make applications at label rates and thoroughly water to wash herbicide down into the soil surface. |
| Dacthal | DCPA | Selective, preemergence grassy weed control in all established lawn grasses found in Oklahoma. | There are several granular herbicide and fertilizer combinations that contain DCPA (Dacthal) on the market. Make applications at label rates and thoroughly water to wash herbicide down into the soil surface. Do not apply within the drip line of trees and ornamentals not listed on the label. |
| Devrinol | napropamide | Selective, preemergence grassy weed control in established bermudagrass, centipedegrass, St. Augustinegrass, and fescue. | Make applications at label rates and thoroughly water to wash herbicide down into the soil surface. |
| Diquat | diquat | Non-selective, postemergence, winter weed control in dormant bermudagrass. | Diquat is labeled for use on dormant bermudagrass turf and lawns by professional applicators only. Apply when temperature and moisture conditions favor rapid weed growth. |



**Table 1. (cont'd)**

| Herbicide | Common Chemical Name | Recommended Use (always read and follow label instructions) | Other Comments |
|---|---|---|---|
| Dowpon-M | Dalapon | Non-selective, postemergence control of most weeds found in non-crop areas, such as roadsides, fence rows, and drainage ditches. | Apply when grasses are growing well and before heading. Adequate soil moisture favors good growth and effective herbicidal action. Use any approved agricultural surfactant in all applications of Dowpon-M. |
| DSMA | disodium methanearsonate | Selective, postemergence summer grassy weed control in established bermudagrass, buffalograss, and Kentucky bluegrass. | Effective weed control normally involves 2 to 4 spray applications, spaced 10 to 14 days apart. The ideal temperature range for application is from 80 to 90°F. Tall fescue and zoysiagrass have marginal tolerance, so injury can occur. Never apply on centipedegrass or St. Augustinegrass. Addition of surfactant is helpful, if not included in the product. |
| Kerb | pronamide | Selective, preemergence and postemergence winter grassy weed control in established bermudagrass. | Do not apply Kerb on desirable cool-season turfgrasses such as Kentucky bluegrass and tall fescue. Do not mix Kerb with spray adjuvants or other pesticides. Kerb acts mainly through root absorption. Applications should be followed, if no rain occurs within a day or so, with a light overhead irrigation to move the chemical into the root zone. Avoid heavy irrigation of more than 1 inch to reduce the possibility of excess washing or leaching of the chemical from the area of application. |
| MCPP | mecoprop | Selective, postemergence broadleaf weed control in established bermudagrass, Kentucky bluegrass, centipedegrass, perennial ryegrass, tall fescue, and zoysiagrass. | Effective weed control may involve 2 to 4 spray applications, spaced 10 to 14 days apart. Do not apply when air temperatures exceed 85°F or are so low as to prevent active weed growth. |
| MSMA | monosodium methanearsonate | Selective, postemergence summer grassy weed control in established bermudagrass, buffalograss, and Kentucky bluegrass. | Effective weed control normally involves 2 to 4 spray applications, spaced 10 to 14 days apart. The ideal temperature range for application is from 80 to 90°F. Tall fescue and zoysiagrass have marginal tolerance, so injury can occur. Never apply to centipedegrass or St. Augustinegrass. Addition of surfactant is helpful, if not included in the product. |
| Princep | simazine | Selective, preemergence and postemergence winter weed control in semidormant common-type bermudagrass, centipedegrass, St. Augustinegrass, and zoysiagrass. | Do not apply before October 1. Do not apply on turf areas west of high rainfall areas of eastern Oklahoma. Do not use on muck or alkaline soils. Do not apply within the drip line of trees and ornamentals not listed on the label. Always apply the label recommended rates. |
| Purge | atrazine | Selective, preemergence and postemergence winter weed control in dormant common-type bermudagrass, centipedegrass, and St. Augustinegrass. | Do not apply before bermudagrass is dormant. Do not apply over the rooting area of trees and ornamentals not listed on the label. Always apply the label recommended rates. |
| Phytar 560 | cacodylic acid | Non-selective, postemergence annual weed control along sidewalks, driveways, ornamentals, fences, and buildings. Also, for control of annual weeds in lawns that are being renovated. | Phytar 560 contains a surfactant. Best results are obtained on young actively growing weeds. It produces topkill only, so repeat applications are required for season long weed control of perennial weeds. |