

TURFGRASS SCIENCE

at the University of Tennessee

Trade Names of Herbicides Labeled for Use in Turf

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Introduction

The best defense against weed infestation is maintaining a dense, vigorous, high-quality turf. While implementing cultural practices to maximize turfgrass quality (proper mowing, fertility, pest management, etc.) will reduce the likelihood of weed infestations, herbicide applications are often required for complete control.

Types of Herbicides

Herbicides are chemicals that kill or suppress the growth of plants. More than 300 chemicals are used as herbicides throughout the world. They are broadly categorized by mode of action, chemical structure and application timing.

Selective vs. Non-selective

Selective herbicides control certain weeds but will not cause injury to registered crops (e.g., turfgrass species) when applied at the correct rate and timing. Most herbicides are sold for selective weed control. Turfgrasses listed as “tolerant” on the product label either do not absorb toxic levels or are able to compartmentalize, exclude or metabolize these herbicides so they are no longer a threat to turfgrass survival. In contrast, non-selective herbicides will cause damage to most any plant. A commonly used non-selective herbicide in turf is glyphosate (Roundup ProMax™). Non-selective herbicides should be used with caution when spraying around desirable vegetation.

Preemergence vs. Postemergence

Preemergence herbicides are applied prior to the emergence of the weeds to be controlled. The most common targets of preemergence herbicide applications in turfgrasses are crabgrass species (*Digitaria spp.*). Most of the preemergence herbicides used in

turf have residual activity in the soil, entering the roots and/or emerging shoots of weeds. Preemergence herbicides may be active in the soil for more than 10 weeks after application. Preemergence herbicides commonly need 1/2 inch of overhead irrigation or rainfall after application for “activation.” Contrary to popular belief, residual herbicides do not prevent seed germination, but prevent weeds from maturing by inhibiting growth processes following germination.

In contrast, postemergence herbicides are applied following weed emergence. Postemergence herbicides enter weeds through the foliage and either act at the point of contact or move systemically through the vascular system of susceptible weeds. As a general rule, smaller, less mature weeds are more readily controlled than those that are larger. Many postemergence herbicides are applied with an adjuvant in the spray solution to increase control.

Herbicides Labeled for Use in Turf

The following tables list herbicides labeled for weed control in turf. Herbicides are often recommended by the name of their active ingredient rather than their trade name (i.e., the name that appears on the actual product container) because trade names can change over time. Additionally, products with the same active ingredient may have different trade names depending on where the herbicide is intended to be used. Lastly, different companies may sell the same active ingredient under different trade names. Sometimes the same trade name may contain different concentrations of the active ingredient (e.g., Roundup™). This publication is designed to be used as a guide in selecting herbicides for use in turf recommended by the name of their active ingredient.

| Preemergence Herbicides | |
|--------------------------------|----------------------------------|
| <i>Active Ingredient</i> | <i>Trade Name</i> |
| atrazine | Aatrex ; Atrazine |
| benefin | Balan |
| benefin + oryzalin | XL 2G |
| benefin + trifluralin | Team |
| bensulide | Bensumec; Betasan |
| DCPA | Dacthal |
| dithiopyr | Dimension |
| ethofumesate | Prograss |
| isoxaben | Gallery |
| metolachlor | Pennant Magnum |
| mesotrione | Tenacity |
| napropamide | Devrinol |
| oryzalin | Surflan |
| oxadiazon | Ronstar |
| oxadiazon + benefin | RegalStar; numerous products |
| oxadiazon + prodiamine | RegalStar II |
| pendimethalin | Pendulum; Pre-M; numerous others |
| pronamide | Kerb |
| prodiamine | Barricade ; Regalkade |
| siduron | Tupersan |
| sulfentrazone | Dismiss |
| sulfentrazone + prodiamine | Echelon |
| simazine | Princep |

| Postemergence Herbicides | |
|--|------------------------------------|
| <i>Active Ingredient</i> | <i>Trade Name</i> |
| 2,4-D | 2,4-D Amine ; numerous others |
| 2,4-D + MCPP + dicamba | Trimec, Three-Way; numerous others |
| 2,4-D+ fluroxypyr+ dicamba | Escalade II |
| atrazine | Aatrex |
| bentazon | Basagran; Lescogran |
| bentazon + atrazine | Prompt 5L |
| bispyrabic-sodium | Velocity |
| bromoxynil | Buctril |
| carfentrazone | QuickSilver |
| carfentrazone + 2,4-D + MCPP + dicamba | SpeedZone |

| Postemergence Herbicides | |
|--|---|
| <i>Active Ingredient</i> | <i>Trade Name</i> |
| carfentrazone + MCPA + MCPP + dicamba | PowerZone |
| chlorosulfuron | Corsair ; Telar |
| clethodim | Envoy |
| clopyralid | Lontrel T&O |
| clopyralid + triclopyr+ 2,4-D | Momentum |
| dicamba | Banvel ; Vanquish |
| diclofop | Illoxan |
| diquat | Reward |
| ethofumesate | Prograss |
| fenaxoprop | Acclaim Extra |
| fluazifop | Fusilade II |
| fluroxypyr | Spotlight |
| foramsulfuron | Revolver |
| glufosinate | Finale |
| glyphosate | Roundup ProMax; Round-up Pro; numerous others |
| halosulfuron | Manage; SedgeHammer |
| imazaquin | Image |
| mecoprop | MCPP |
| mesotrione | Tenacity |
| metribuzin | Sencor |
| metsulfuron | Blade; Manor |
| MSMA | numerous products |
| MSMA + 2,4-D + MCPP+ dicamba | Trimec Plus |
| penoxsulam | LockUp |
| quinclorac | Drive ; Drive XLR8 |
| quinclorac + sulfentrazone + 2,4-D + dicamba | Q4 |
| quinclorac + MCPP + dicamba | Onetime |
| rimsulfuron | TranXit GTA |
| sethoxydim | Vantage ; Poast |
| simazine | Princep |
| sulfentrazone | Dismiss |
| sulfentrazone + 2,4-D + MCPP+ dicamba | Surge |
| sulfosulfuron | Certainty |
| triclopyr | Turflon Ester |
| triclopyr + clopyralid | Confront |
| trifloxysulfuron | Monument |

Remember, to provide effective weed control, a product must control the target weed(s) and be safely applied to the turfgrass species that are infested with the problem weed.

Before application, always carefully read the label of the product. Herbicide labels are legal documents that must be followed. Labels provide users with specific use information, turfgrass tolerance, weed species controlled and information about where the product can be safely applied. For example, some products are not labeled for use on home lawns, while others are not labeled for use on golf greens. Consult the label to determine if the herbicide selected is labeled for the desired use.

The omission of a particular trade name is not intended to reflect adversely, or to show bias against, any product or trade name not mentioned. Often pre-mixed combination products (two or more active ingredients) containing the same active ingredients can have different trade names.

For more information on turfgrass weed control, visit the University of Tennessee's turfgrass weed science Web site, <http://www.tennesseeturfgrassweeds.org>.

Disclaimer

This publication contains herbicide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the herbicide applicator's responsibility, by law, to read and follow all current label directions for the specific herbicide being used. The label always takes precedence over the recommendations found in this publication.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), the University of Tennessee Institute of Agriculture and University of Tennessee Extension assume no liability resulting from the use of these recommendations.

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