



Pesticide Planning in the Landscape: Selecting Preemergent Herbicides for Use in Established Landscape Beds

Preemergent herbicides are a valuable tool for landscapers and home gardeners. By applying preemergent herbicides to the landscape, weed growth can be arrested before those pesky plants become a larger nuisance. When allowed to mature, weeds compete with desirable plants in the landscape for essential resources including water, nutrients and sunlight, if the weed is tall enough. It also may set seed and bring forth the next barrage of weeds that wreak havoc on the landscape. Weeds also harbor disease and other pests, from little insects to larger vertebrate pests. Applying preemergent herbicides can stop this problem in its tracks by preventing newly germinated weeds from continuing to develop. When newly germinated seeds seek the soil surface, preemergent herbicides applied to the soil will disrupt development, effectively killing the weed well before it reaches maturity. Preemergent herbicides are not necessarily designed to stop weeds from germinating. In fact, they are often designed to destroy young weeds when they are in a vulnerable, postgermination stage (i.e. inhibiting development of roots and/or shoots soon after germination) before they emerge from the soil surface. Applying a preemergent herbicide, followed by watering-in appropriately, creates a barrier of the active ingredient near the soil surface, intercepting and injuring the seedling as it attempts to emerge from the soil. When applying preemergent herbicides, or any pesticide for that matter, take the time to fully read and understand the chemical you are applying. The label has crucial information to get the maximum value out of the pesticide you are applying.

In the case of preemergent herbicides, the goal of applying chemicals is to kill weeds – not to kill desirable landscape plants. The active ingredients in preemergent herbicides are designed to deliver harm to young, germinating weeds; however, the active ingredient may not necessarily be safe to use with larger, more established plants in

Specimen Label



Snapshot[®] 2.5TG

SPECIALTY HERBICIDE

[™]Trademarks of Corteva Agriscience and its affiliated companies

A selective preemergence herbicide for control of certain broadleaf weeds and annual grasses in:

- Landscape Ornamentals
- Christmas Tree Plantations
- Container Grown Ornamentals
- Field Grown Ornamentals
- Groundcovers/Perennials
- Non-Bearing Fruit and Nut Trees
- Non-Bearing Vineyards
- Non-Cropland

Active Ingredients:

trifluralin: α, α, α -trifluoro-2,6-dinitro- <i>N</i> , <i>N</i> -dipropyl- <i>p</i> -toluidine	2.0%
isoxaben: <i>N</i> -[3-(1-ethyl-1-methylpropyl)-5- isoxazolyl]-2,6-dimethoxybenzamide and isomers	0.5%
Other Ingredients	97.5%
Total	100.0%

Contains 1.25 lb active ingredient per 30 lb bag.

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-175

Figure 1. Snapshot 2.5 TG label.

Note: Injury on the following plant species has been observed following applications of Snapshot 2.5 TG and use is not recommended.

Common Name	Scientific Name
ballerina cranesbill	<i>Geranium cinereum</i> 'Ballerina'
bertram anderson lingwort	<i>Pulmonaria longifolia</i>
bugle	<i>Ajuga</i> spp.
cajeput tree	<i>Melaleuca quinquenervia</i>
candytuft	<i>Iberis</i> spp.
Carolina rhododendron	<i>Rhododendron carolinianum</i>
dwarf burning bush	<i>Euonymus alatus</i> 'compacta'
foxglove	<i>Digitalis purpurea</i>
green yucca	<i>Yucca recurvifolia</i>
hydrangea	<i>Hydrangea</i> spp.
luxuriant bleeding heart	<i>Dicentra luxuriant</i>
mountain sandwort	<i>Arenaria montana</i>
mustard	<i>Brassica</i> spp.
oak leaf acanthus	<i>Acanthus mollis</i>
prince of wales juniper	<i>Juniperus horizontalis</i> 'Prince of Wales'
purple coneflower	<i>Echinacea purpurea</i>
roseum elegans rhododendron	<i>Rhododendron catawbiense</i> 'Roseum elegans'
spurge	<i>Euphorbia</i> spp.
stonecrop	<i>Sedum</i> spp.
summer phlox	<i>Phlox paniculata</i>
white festival baby's breath	<i>Gypsophila paniculata</i>
wine periwinkle	<i>Vinca minor</i> 'Atropurpurea'

Figure 2. Plants that are not recommended to have Snapshot 2.5 TG applied to them.

the landscape. Fortunately, the labels of many preemergent herbicides provide information on which ornamental plants are – and are not – susceptible to certain compounds. This fact sheet will use a popular preemergent herbicide, Snapshot 2.5 TG, as an example.

The label for Snapshot 2.5 TG (Figure 1) displays the name of the formulation (Snapshot 2.5 TG), what it is used for (controlling weeds in ornamental and nonedible crop land), and the active ingredients (trifluralin and isoxaben), as well as the Environmental Protection Agency registration number and other licensing information. The label has information on specific species that are not recommended to apply this product near (Figure 2), providing both common name and Latin name of the affected species. Through rigorous research and testing, the knowledge of which plants to avoid applying certain compounds can save time, money and the vitality of certain plants. Fortunately, knowledge of which plants are safe to apply this product to is available further down the label. Figure 3 has a very brief excerpt (out of hundreds of species of trees, shrubs, perennials, groundcovers, etc.) of plants that are safe to apply this product to, of course, if applied correctly.

With the knowledge of which plants are (and are not) safe to use certain preemergent herbicides around, landscape management plans can be effectively created to minimize risk. In established landscapes, taking inventory of which plant species are present can be used to select preemergent herbicides that are safe to use for existing plants. In planning new landscape installations, selecting plants that are all safe to use certain preemergent herbicides around can make continuing management simpler. Much like how we discuss grouping plants in landscape designs based on their water use needs, consider grouping plants based on which preemergent herbicides are safe for use as well.

Snapshot 2.5 TG may be used on the following established plant species (Note: Limitations on recommended treatment methods):

Trees	Recommended Treatment Method: C = Container Grown F = Field Grown	
Scientific Name	Common Name	
<i>Abies balsamea</i>	fir, balsam	C, F
<i>Abies concolor</i>	fir, white	F
<i>Abutilon hybridum</i>	albus-flowering maple	C, F
	luteus-flowering maple	C, F
	roseus-flowering maple	C, F
	tangerine-flowering maple	C, F
	vesuvius red-flowering maple	C, F
<i>Acer ginnmala</i>	flame maple	F
<i>Acer rubrum</i>	red maple	F
	red sunset maple	F
<i>Acer saccharinum</i>	silver maple	C, F
<i>Alsophila australis</i>	Australian tree fern	C, F
<i>Anacardium romanzoffianum</i>	queen palm	C, F
<i>Betula nigra</i>	birch, river	C, F
<i>Betula papyrifera</i>	paper birch	F
<i>Brachychiton populneus</i>	bottle tree	C, F
<i>Bucida buceras</i>	black olive	F
<i>Carolina siligna</i>	carob	F
<i>Celtis canadensis</i>	redbud	C, F
<i>Chamaecyparis obtusa</i>	filicoides-fernspray cypress	F
<i>Chamaecyparis obtusa</i>	gracilis-slender hinoki cypress	F
<i>Chamaecyparis pisifera</i>	sawara-false cypress	F
	squarrosa-moss cypress	F
<i>Chamaedorea cataractarum</i>	cat palm	F
	palm	C, F
<i>Chamaedorea costaricana</i>	palm	C, F
<i>Chamaedorea elegans</i>	parlor palm	C, F
<i>Cornus florida</i>	cloud nine dogwood	C, F
	dogwood, flowering	C, F
	green hawthorn	F
<i>Crataegus viridis</i>	crataegus, Japanese	C, F
<i>Cryptomeria japonica</i>	cryptomeria, Japanese	C, F
<i>Cupaniopsis anacardioides</i>	carrot wood	F
<i>Cupressocyparis x 'Emerald Isle'</i>	emerald island leyland cypress	C, F
<i>Cupressus arizonica</i>	Arizona cypress	C, F
<i>Cupressus glabra</i>	Arizona cypress	F
<i>Cupressus sempervirens</i>	Italian cypress	C, F
<i>Dicksonia antarctica</i>	Tasmanian tree fern	C, F
<i>Elaeagnus angustifolia</i>	Russian olive	C, F
<i>Elaeagnus x 'Gilt edge'</i>	gilt edge silverberry	C, F
<i>Eucalyptus camaldulensis</i>	red gum eucalyptus	F
<i>Eucalyptus cinerea</i>	eucalyptus, mealy	F
	silver dollar eucalyptus	F

Figure 3. Established plants that are safe to apply Snapshot 2.5 TG near. This is a very limited excerpt from list of plants that are safe to apply Snapshot 2.5 TG to them. The product label has several pages and hundreds of species listed that the product may be used on.

For more information on proper pesticide use in the landscape, please contact your local LSU AgCenter Extension office or visit www.LSUAgCenter.com

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P3945 (online) 9/24

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