

Common Herbicides for Ornamental Weed Control

Greg Armel, Extension Horticultural Weed Specialist

Beth Babbit, Extension Urban Horticulture Area Specialist

This chart provides recommendations for the best treatments available for weed control in most ornamental plants. The rates and recommendations for these herbicides are specific for ornamental plants and the chart should be used in accordance with the label. Herbicides listed in this chart are common and often easy for consumers to find; there are many other acceptable herbicides on the market that may suit a similar purpose. Always consult the label before applying any pesticide on a specific ornamental plant or variety.

- Products applied for burndown of existing vegetation prior to planting and/or post-directed for weed control around existing ornamental plants. Extreme care should be taken to avoid spray contact on the foliage of desired vegetation.
- Preemergence and/or pre-plant applied herbicides** for residual control of weeds in selected ornamental plants.
- Postemergence selective weed control** in specific ornamental plants.
- Products applied for **burndown** of existing vegetation **prior to planting and/or post-directed** for weed control around existing ornamental plants in **organic production systems**. Extreme care should be taken to avoid spray contact on the foliage of desired vegetation.



Chemical	Ornamentals appearing on label	Weeds controlled	Timing of Application	Application Rates
Burndown				
Glyphosate <i>Trade name: Roundup®, other</i>	Many plants, see label for specifics	A non-selective herbicide that controls many weeds.	Pre-plant applications allowed in most plants. Post-directed and spot spray treatments are allowed for certain ornamentals as long as care is taken to avoid contact with any foliage or green tissue. Consult label product labels for more specific information. Glyphosate has no soil residual activity.	1 to 5 pints/acre or 1 to 10% solutions depending on the crop Surfactant requirements are based upon formulation of glyphosate selected. Please consult label for specific recommendations.
Pelargonic acid <i>Trade name: Scythe®, other</i>	All landscape trees, bedding plants, flowers and other ornamentals	A non-selective herbicide that controls many weeds.	Post-directed (avoiding spray on foliage or green bark) and pre-plant applications in all landscape trees, bedding plants, flowers and other ornamentals. Pelargonic acid has no soil residual activity.	3 to 10% solution (spot spray): <u>3-5%</u> - solution for annual weeds <u>5-7%</u> - solution for perennial weeds <u>8-10%</u> - solution for maximum burndown of mature weeds No additional adjuvant required.
Diquat dibromide <i>Trade name: Reward®, other</i>	Around all types of ornamental plants in gardens and landscapes.	A non-selective herbicide that controls many weeds; however, broadleaf weeds are more susceptible than grass species. In general, grasses are most susceptible when 1 inch or less in height.	Post-directed (avoiding spray on foliage or green bark) and pre-plant applications in all landscape trees, bedding plants, flowers and other ornamentals. Diquat dibromide has no soil residual activity.	0.75 fl oz plus labeled rate of a 75% active nonionic surfactant in 1 gallon of water (spot spray)

<p>Glufosinate Trade name: <i>Finale</i>®, other</p>	<p>For use around trees and shrubs in residential gardens and landscapes.</p>	<p>Broadleaf weeds: annual sowthistle, bindweed, buffalobur, burdock, Canada thistle (suppression), curly dock, dandelion, fleabane, goldenrod, hemp dogbane (suppression), horsetail, lambsquarters, mugwort (suppression), musk thistle, nettle, nightshade, redroot pigweed, plantain, prickly lettuce, ragweed, mustard species, velvetleaf, Virginia copperleaf, white heath aster, wild buckwheat, wild onion, woodsorrel and others</p> <p>Grasses: Annual bluegrass, bermudagrass (suppression), crabgrass, dallisgrass, fescue, Kentucky bluegrass, ryegrass, sandbur and others</p>	<p>Post-directed (avoiding spray on foliage or green bark) around trees and shrubs.</p> <p>Glufosinate has no soil residual activity.</p>	<p>2 to 6 quarts/acre broadcast or 2 to 4 fl oz per 1 gallon of water for spot spray applications</p>
---	---	---	---	---

Preemergence and/or Pre-plant				
<p>Trifluralin Trade name: Preen™ Garden Weed Preventer, other</p>	For use on several established ornamental plantings.	Several annual grasses, carpetweed, chickweed, Florida pusley, goosefoot, henbit, knotweed, lambsquarters, pigweed spp. and purslane.	Preemergence weed control when applied to established ornamental plants before weeds have emerged. This product needs immediate incorporation after application with irrigation, rainfall or light tillage.	1 oz / 10 sq ft
<p>Orzyalin Trade name: Surflan® AS</p>	For use on several field and container-grown ornamentals. Injury has been reported on the following species: slender deutzia, Douglas fir, Techny arborvitae, eastern hemlock, begonia and coleus	Several annual grasses, bittercress, carpetweed, chickweed, filaree, groundsel, henbit, knotweed (prostrate), lambsquarters, pigweed spp., puncturevine, purslane, shepherd's purse, spurge (prostrate) and yellow woodsorrel.	Preemergence weed control when applied to established ornamental plants before weeds have emerged. This product performs better with incorporation after application with irrigation, rainfall or light tillage.	2 to 4 quarts/acre or 1.5 to 3 fluid oz/1000 sq ft
<p>DCPA Trade name: Dacthal®, other</p>	Use on more than 120 different ornamental plants. Do not use on Dichondra, bugleweed, button pink, carnation, geum, germander, ice plant, pansy, phlox, Sweet William, Telanthera. Consult label for specific details.	Several annual grasses, lambsquarters, carpetweed, chickweed, purslane, field pansy and suppression of other broadleaf weeds.	Pre-plant or preemergence weed control	1 pint in 3 to 7 gallon treats 3000 sq ft

Postemergence Selective Weed Control				
Sethoxydim <i>Trade name: Segment, other</i>	Several bedding plants, groundcovers, shrubs, trees and wildflowers.	Provides selective postemergence contact control of several grass species, including, but not limited to, bermudagrass, broadleaf signalgrass, crabgrass spp., foxtail spp., goosegrass and johnsongrass.	Provides selective postemergence contact grass control only. Sethoxydim has little to no soil residual activity.	2.25 pints/acre or 0.8 fluid oz / 1000 square feet on grasses up to 6 inches in height 3.75 pints/acre or 1.4 fluid oz / 1000 square feet on grasses 6 to 12 inches in height No additional adjuvant required.
Fluazifop-p-butyl <i>Trade name: Ornamec®, other</i>	Several ornamental plants. Warning: Post-directed applications may be safest for certain ornamental plants. Consult label.	Provides selective postemergence contact control of several grass species including, but not limited to, bermudagrass, broadleaf signalgrass, crabgrass spp., foxtail spp., goosegrass and johnsongrass.	Provides selective postemergence contact grass control only. Fluazifop-p-butyl has little to no soil residual activity.	64-96 fluid oz/acre plus 0.25% nonionic surfactant Spot spray: 2.5 fl oz/gal plus surfactant
Clethodim <i>Trade name: Envoy Plus™, other</i>	Several ornamental trees, groundcovers, garden flowers and plants and shrubs.	Provides selective postemergence contact control of several grass species including but not limited to bermudagrass, broadleaf signalgrass, crabgrass spp. foxtail spp. and johnsongrass. Does not always adequately control goosegrass.	Provides selective postemergence contact grass control only. Clethodim has little to no soil residual activity.	16-32 fl oz/acre or 0.4-0.8 fl oz/1000 sq ft plus 0.25% nonionic surfactant Spot spray: 1/2 to 1% (0.65 to 1.3 fl oz/gal) plus surfactant
Halosulfuron <i>Trade name: Sedgehammer™, other</i>	Apply in landscaped areas with established woody ornamentals. Do not apply over-the-top of flowers, ornamentals, shrubs or trees.	Certain broadleaf weeds, yellow and purple nutsedge and kyllinga spp.	Use as a spot spray around established woody ornamentals.	0.9 grams in 1 to 2 gallons of water will treat 1000 sq ft Add 1/3 oz of nonionic surfactant per gallon of water

<p>Bentazon Trade name: Basagran® T/O, other</p>	<p>Liriope (common, green), Ajuga, Boxwood 'Winter Gem', Holly ('Bufordii,' 'Compacta,' 'Dwarf Burford'), Impatiens 'Balsam,' English Ivy, Marigold 'Aurora Gold,' Mugo pine, Red oak, Pachysandra, Ornamental cabbage pansy, Ornamental cabbage 'Colorup,' Petunia ('Madness Plum,' 'Ultra white'), Snapdragon 'L. Scarlet,' and Yew (Japanese 'Densifomis,' 'Hatfieldii' and 'Hicks')</p>	<p>Provides selective postemergence contact control of certain broadleaf weeds such as ballonvine, coffee senna, galinsoga, groundsel, ladythumb, lambsquarters, mustard, Pennsylvania smartweed, prickly sida, purslane, ragweed (common, giant), redweed, sesbania, shepherd's purse, spurred anoda, lawn burweed, wild buckwheat, wild poinsettia, wild sunflower and yellow nutsedge.</p> <p>Bentazon has no soil residual activity.</p>	<p>Provides selective postemergence contact broadleaf and sedge control.</p>	<p>1 to 2 pints/acre or 0.375 to 0.75 fl oz/1000 sq ft</p> <p>Spot spray: 0.75 fl oz per 1 to 2 gallons of water</p> <p>A non-phytotoxic oil concentrate may be added at 0.75 fluid oz / 1000 sq ft (2 pints/acre).</p>
<p>Imazaquin Trade name: Image®, other</p>	<p>Indian hawthorne, Dwarf yaupon holly, Blue Pfitzer Juniper, Helli holly, Red tip photinia, Yucca, Wax Myrtle, Burford Holly, Gardenia, 'Miami Supreme,' 'Flame of the Woods,' Confederate jasmine, Parsons Juniper, Blue pacific juniper, Blue rug juniper, Red crape myrtle, Asiatic jasmine, Giant liriope, Variegated liriope, Mondo grass, Pachysandra, Hosta 'Lancifolia,' Society garlic.</p> <p>* Do not apply to food-producing vines, trees or berries; vegetable gardens; container ornamentals; nursery liners; seedlings; or tree nurseries.</p>	<p>Provides selective control of black medic, buttercup, Carolina geranium, carpetweed, common chickweed, cutleaf eveningprimrose, eclipta, field sandbur, green kyllinga, hairy bittercress, henbit, knawel, mouseear chickweed, perennial ryegrass, pigweed species, purple deadnettle, purple nutsedge, red sorrel, white clover, wild garlic, wild onion and yellow nutsedge</p>	<p>Apply postemergence to established landscape ornamentals for selective contact and residual weed control.</p>	<p>Apply 0.2 to 0.26 oz / 1000 sq ft as a broadcast application.</p> <p>Spot spray: dissolve 0.5 oz in 3 gallons of water</p> <p>Add 0.25% v/v nonionic surfactant for postemergence applications.</p>

Organic Burndown*				
Vinegar - active ingredient: acetic acid	All ornamental plants	Certain broadleaf weeds with grass suppression	Organic post-directed (avoiding spray on foliage or green bark of ornamental plants) contact control. Vinegar has no soil residual activity.	At least a 20% solution for the most consistent performance Multiple applications are often needed for long-term control.
Boiling water (~212° F)	All ornamental plants	Many weeds	Organic post-directed (avoiding contacting foliage or green bark of ornamental plants).	Pour until plant foliage becomes wilted. Multiple applications are often needed for long-term control.
Flame/ torch	All ornamental plants	Many broadleaf weeds with some grass suppression; broadleaf weeds that are larger or have a waxy cuticle (i.e., purslane) will not be controlled adequately.	Organic post-directed (avoiding contacting foliage or green bark of ornamental plants). Some heat stress may be noted on ornamental plants even if vegetation does not come in direct contact with the flame.	Flame applications will require approximately 5 to 15 gallons/ propane per acre. Use with caution in accordance with local fire regulations.
* Organic weed control products listed here can cause human harm such as chemical- or heat-related burns, if used improperly.				