

# Control T&O

**Invasive weeds spreading into turf or ornamental beds can wreak havoc on your control strategies. Here are the products that work well in both locations, without harming non-target plants.**



## 'crossover' weeds

BY JEFFREY F. DERR / WEED SCIENTIST

▲ You may find spotted (prostrate) spurge, a common summer annual broadleaf weed, in several landscape locations.

**A**re you frequently responsible for maintaining both lawn areas as well as landscape ornamental beds on the same property? Weed control is a major maintenance concern for both of these areas. In some cases, you might be dealing with the same weed species in turf as well as in tree, shrub and flower bed areas.

The tendency for creeping perennials to move from one area to the another can make the success of a weed management program in lawns have an impact on weed severity in beds, and vice versa. Also, certain weed species will be more common in one area or the other.

Ideally, you would probably like to use the same weed control program in both areas. This is especially important in regards to chemical control. Weed control programs would be much simpler if you could use the same products in both lawns and beds. You could purchase fewer products and would be less concerned about plant injury.

As you plan ahead for next year's control programs, remember some product crossover is possible for certain herbicides but not for others. Some herbicides used in lawns would injure ornamentals. Alternatively, certain herbicides well tolerated by ornamentals can injure turfgrass. If you

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treat both of these areas, you should know the tolerance of turf and ornamentals to the herbicides being used. You may actually favor one product over another if greater safety exists in both lawns and beds. By knowing plant tolerance, you can use extra caution when applying herbicides that, potentially, could cause injury in non-target plants.

#### Crossover weeds to watch

Some weed species cannot tolerate mowing, so they will be more common in ornamental beds. Other species thrive when mowed, and are less common in beds. Goosegrass, for example, is more troublesome in turf. Common groundsel is primarily an ornamental bed weed. However, many of the weed species landscape firms must control are found in both lawns and nursery beds.

Several of our most common weed species infest both lawns as well as flower and shrub beds:

- Large crabgrass is a summer annual grass that infests all of these areas;
- annual bluegrass is a winter annual growing in a variety of locations;
- spotted (prostrate) spurge is a summer annual common in turfgrass and ornamentals;
- common chickweed is a winter annual infesting both areas;
- creeping perennial grasses, such as bermudagrass and quackgrass, will invade lawns and beds and spread from one area to the other;
- yellow nutsedge (a perennial sedge) is a troublesome weed that spreads vegetatively;
- wild onion and wild garlic are difficult to control in ornamentals and turf;
- dandelion is a simple perennial that grows in a range of sites; and



Large crabgrass is a common summer annual grass in lawns and ornamental beds.

► mugwort is a spreading perennial broadleaf that infests turfgrass and ornamentals.

If one of these spreading perennial species exists at a site, it must be controlled in both lawns and beds, otherwise they can reinfest adjacent untreated areas.

#### What are your options?

Although many weed species are common to both turf and ornamental beds, you might develop different control strategies for the two areas. We can readily control broadleaf weeds in lawns, but grasses, especially perennial ones, are more difficult to control. In broadleaf ornamentals, annual and perennial grasses can be easily controlled, but broadleaf weeds, especially perennials, are difficult to control.

These differences are due to the differences in response of grasses and broadleaves to some of the available selective herbicides. The table on page 47 compares the options for selective weed control in turfgrass and broadleaf ornamentals.

This is only general guide. Keep in mind that there are some very specific situations where a herbicide can be used in a limited number of turfgrass species or a limited number of nursery species. For example, a herbicide might be used on

warm-season grasses but not cool-season ones. Certain herbicides can be used in woody ornamentals (trees and shrubs) but not on herbaceous species like bedding plants and perennial flowers.

#### Preemergence annual grass control

A number of chemicals can be used to control annual grasses like crabgrass, foxtails and goosegrass in both lawn areas as well as ornamentals. Most in this class are root inhibitors. Once a lawn or an ornamental has a well established root system, they will tolerate these products quite well.

Preemergents that can be used on turfgrass and both herbaceous and woody ornamentals include: pendimethalin (Pendulum, others); (Barricade); bensulide (Betasan); benfen plus trifluralin (Team Pro); and dithiopyr (Dimension). DCPA (Dacthal) also fits this group but is no longer available.

There are advantages to selecting one of these chemicals. You can purchase one chemical for preemergence crabgrass control and apply it to lawns as well as flowerbeds, trees and shrubs. A good choice would be a granular formulation of one of these products. Sprayable formulations of certain of these herbicides can cause stunting in certain annual flowers.

Oryzalin (Surflan) can be applied to many ornamentals, as well as to warm-season turfgrass species. Granular formulations of oxadiazon (Ronstar 2G) can be applied to many woody ornamentals, as well as a range of turfgrass species. The list of labeled species is more limited for the wettable powder formulation of oxadiazon, due to the greater injury potential in ornamentals and turfgrass species.

#### Postemergence grass controls

There are few herbicides that can be

COMPARISON OF CHEMICAL WEED CONTROL STRATEGIES IN LAWNS AND ORNAMENTAL BEDS.

## Is Selective Control Possible?

WEED GROUP	PREemergence			POSTemergence		
	TURF	ORNAMENTALS	SIMILAR	TURF	ORNAMENTALS	SIMILAR
Annual grasses	Yes	Yes	Yes	Yes	Yes	Somewhat
Annual broadleaves	Yes	Yes	Yes	Yes	No	No
Perennial grasses	No	Limited	No	No	Yes	No
Perennial broadleaves	No	Limited	No	Yes	No	No
Yellow nutsedge	No	Yes	No	Yes	Yes	Yes
Wild garlic	No	No	No	Yes	No	No

used in both lawns and ornamentals for postemergence grass control. Dithiopyr will control emerged crabgrass in both situations, but it will not control emerged plants of most other weedy grasses. Fenoxaprop (Acclaim Extra) can be applied to many broadleaf ornamentals and can also be used in certain cool-season grasses to control emerged annual grasses, as well as to suppress bermudagrass.

There are several other postemergence grass herbicides that can be used in broadleaf ornamentals. Most turfgrass species will not tolerate these compounds, but there may be a degree of tolerance in specific turfgrass species. For example, fluzafop (Fusilade/Ornamec) can be applied

to a wide range of broadleaf ornamentals and can also be used in tall fescue. However, application rates are much less for tall fescue due to the limited tolerance to this herbicide.

### Handling broadleaf problems

**Preemergence** — Isoxaben (Gallery) can be applied to many turfgrass species, as well as woody ornamentals and certain herbaceous perennials. Isoxaben controls annual weeds such as common chickweed that infest lawns and beds. It also controls weeds like dandelion and plantain from seed, but will not control established plants of these perennials. Simazine (Princep) can be used in certain warm-season grasses and in selected trees and shrubs for preemergence broadleaf control. The preemergence crabgrass herbicides listed above will also control some broadleaf weeds from seed.

**Postemergence** — Most herbicides used for postemergence broadleaf control in turf cannot be used in ornamentals due to potential for severe injury. Clopyralid (Lontrel) can be used in turf, as well as a limited list of ornamentals. It controls members of the legume and composite families and therefore must be kept away from species such as locust, redbud and sunflowers. Imazaquin (Image) can be ap-

plied to certain warm-season turfgrass species, as well as a limited number of woody ornamentals. Imazaquin will injure cool-season turfgrass species, as well as many ornamental species. Besides controlling broadleaf weeds, imazaquin will suppress sedges, wild onion and wild garlic.

### Nutsedge, garlic problems

**Yellow nutsedge** — In most cases, yellow nutsedge cannot be controlled preemergently in turf. Halosulfuron (Manage) and bentazon (Basagran) can be used in a wide range of turfgrass species for postemergence yellow nutsedge control. Both of these chemicals can be used as a directed spray in established woody ornamental species. Take care when applying halosulfuron or bentazon around ornamentals, as injury can occur in some species.

**Wild onion/wild garlic** — There are no herbicides providing selective control of these two weeds that can be used in both cool-season grasses and ornamentals.

As you can see, you have several options for controlling weeds in lawns and ornamental beds with the same herbicide. Check the respective label to ensure that the species you will be treating tolerates that herbicide.

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Bermudagrass and yellow nutsedge are two creeping perennials that can spread between lawns and ornamental beds.

# Care for aerators & fountains in winter

**Learn how to use water features through the winter to keep ponds fresh and aerated** BY WILLIS DANE

In climates where ponds don't freeze, don't fret.



**I**f you can operate a fountain or aerator during winter, even in severe weather, you can keep a portion of a pond open for use by waterfowl or wildlife, provide aerated water for fish and protect any docks from ice damage. Ponds and lakes stay open when aerators or fountains circulate warmer bottom water to the surface.

Despite these advantages, there are two main challenges to keeping aerators or fountains operating through the winter: 1) having the proper setup; and 2) shutting down and storing these units correctly.

## Operating in winter

Deeper is better when operating an aerator or fountain to keep waterways free of ice. You can ensure adequate temperature difference between the surface and bottom water if there is a minimum depth of 5 or 6 ft. Add suction tube extensions to access pond depths of 15 ft. or more, allowing for even better ice prevention.

In climates where ponds do not freeze in the winter or where light freezing occurs for short periods, there are no restrictions to operating fountains or aerators. Even short periods of freezing temperatures will not interfere with operation.

While it is possible to operate aerators and fountains safely in winter weather, never attempt operating with a nozzle in severe freezing temperatures. Remove the nozzle to prevent water spraying into the air. Sprayed water cools rapidly and increases the likelihood of ice buildup around the unit. Take off the nozzle and allow the water to gush from the head, which maximizes the flow of warmer water and minimizes cooling from air



While it's possible to operate aerators safely in winter, never attempt operating with a nozzle in severe freezing temperatures. Sprayed water cools rapidly and coats the unit with ice.

contact. It also prevents ice buildup on the float. Fountains that use impellers instead of propellers pump much less water than aerators, and will keep much smaller areas ice-free.

An even better method of de-icing is the submerged operation technique, which combines the sinking operation and full operation with the nozzle removed. Warm bottom water is automatically blown to the surface, which also minimizes the unit's exposure to winter elements. Using this technique eliminates concerns about power loss, lets the pump be operated under timer control or allows for periodic shutdowns.

#### **Sink or swim**

If you don't wish to keep a pond open in winter, either sink an aerator or fountain below the ice or remove it. Sinking eliminates cable handling and storage concerns. It also prevents motor freezing or loss of internal water, and allows simple and safe de-icing operations.

To sink an aerator, attach dense weights, such as weight lifting weights, equally to the float eyebolts (about 12 lb. total weight per inch of float showing above the water surface). Don't use concrete blocks. They lack the density to be effective weights. The attached ropes must allow the weights to hang 2 to 3 ft. below the pump intake so that they rest on the pond floor and allow the pump to float just above the bot-

tom. Be sure to attach a poly rope (that floats) to the float eye and to the floatation device so you can retrieve it in the spring.

#### **Store it away**

If you remove aerators or fountains for winter, store them in an area that cannot freeze. Fill motors with an antifreeze solution, but during operation, the antifreeze can gradually be replaced with pond water leakage from seals. A full unit at startup prevents wear and extends motor life.

Using a timer during severe winter operation is not recommended unless the unit is below the pond surface. Surface units should run continually to avoid freezing inside the upper tube, head or nozzle, which could cause damage to those components. Check surface operated aerators or fountains regularly during winter to insure continuous operation. Never operate fountains or aerators in ponds used for ice skating or ice fishing without proper safeguards.

Decide which of your options works best. Winterizing aerators and fountains by removing, sinking or continually running them can protect the units from freezing damage. They can also be used during severe winter weather to prevent portions of ponds and lakes from freezing, offering real environmental benefits while protecting water structures from damage.

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