

CMG GardenNotes #552

Broadleaf Weed Control in Lawns

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Dandelion, clover, plantain and other broadleaf weeds are among the most common and troublesome turf pest problems in lawns. Even though most broadleaf weeds can be easily controlled with herbicides, a completely weed-free lawn is neither practical nor environmentally sensible. A safe and sound approach to lawn weed control is to grow a healthy lawn, spot-treat weeds with the correct weed control product as they appear, and avoid the temptation to have a 100% weed-free lawn.

The best way to minimize weed problems in your lawn is through the use of good cultural practices: proper mowing height and frequency, sensible fertilization, and adequate irrigation. On the other hand, lawn weeds are encouraged by: mowing your lawn too short or not often enough; fertilizing too much, not enough, or at the wrong time of the year; and over- or under-watering.

Where Do Lawn Weeds Come From?

- Seeds of broadleaf weeds occur naturally in all soils, and can persist for 30 or more years. They will germinate when a lawn is thin and not healthy, when the seeds are brought to the surface by human or pet traffic, or when the turf is damaged or killed by drought, heavy traffic, insect feeding, or disease activity.
- Cheap, low-quality grass seed often contain unwanted weed seed. If the seed label lists ANY weed seed as a component, DON'T buy it! The best quality grass seed (sold by professional seed suppliers) will almost always be 100% weed-free, and will often cost nearly the same as poor quality products which contains weed seed. READ THE SEED LABEL! The Weed Content of any grass seed you buy (expressed as a %) should be 0%.
- Weed seeds are often brought to a landscape in topsoil or low quality compost. Make sure that all soil or compost comes from a reputable supplier and is guaranteed to be weed-free.

Using Herbicides to Manage Lawn Weeds

The most common herbicide choice is a general-purpose mixture comprised of two or three of the following individual herbicides or active ingredients: 2,4-D; MCPP (mecoprop); and dicamba (Banvel). Multiple active ingredients will control a wider spectrum of broadleaf weeds, than a single active ingredient. Read and follow all directions on the herbicide label if you choose to apply a herbicide to your lawn.

The best time to apply a general-purpose broadleaf herbicide for the control of perennial broadleaf weeds such as dandelion, plantain, and clover is early-September to early November. As winter approaches, perennial broadleaf weeds are storing energy reserves in stems and roots; a fall-applied herbicide will enter the plant and travel to these plant parts with the food reserves. The second best time is in the late spring or early summer period after the weeds have flowered. If applying in the late spring, be extremely cautious with these herbicides near ornamentals, trees, flowers, and vegetable gardens because these plants can be damaged by these herbicides through direct application, drift, and/or volatilization (the herbicide turns into a vapor). This is another reason why we prefer to apply these herbicides in the fall.

- If you only have a few weeds in your lawn, simply spot-apply a herbicide rather than applying to the entire lawn. Apply just enough to wet the leaf and do not apply to the point that the herbicide is dripping off the leaf.
- Apply to actively growing, preferably young weeds.
- Do not apply herbicides when the soil moisture is low and weeds are drought-stressed; an actively growing, healthy, non-stressed weed is the easiest one to control.
- Apply herbicides on a calm, clear day when the air temperature is between 50 and 85F; applying when temperatures exceed 90° F increases the potential for volatilization injury to other plants in the landscape.
- Don't apply if rainfall will occur within 12 hours; avoid applying irrigation for at least 12 hours following a herbicide application.
- Don't mow the lawn for 2 days before and after the herbicide application.
- Do not apply to new turfgrass seedlings until the grass has been mowed at least three times.
- Delay applying a broadleaf herbicide to new sod for 4 to 5 weeks after planting.

Summer Broadleaf Weed Management

Summer annual broadleaf weeds (e.g., spurge, knotweed, purslane, etc.) are very difficult to control for a number of reasons. Depending on the species, these weeds germinate at different times during the summer and mature in a very short period of time. Thus, a single application of herbicide might only control a single weed species because other species have not germinated or have grown

too large to be controlled. Summer annual weeds often have a thick, waxy cuticle layer on their leaf surface to prevent water loss; this layer may also make it more difficult to get herbicide into the weed.

Some annual broadleaf weeds can be effectively controlled by preemergence herbicides. For example, summer annuals like spurge, knotweed, purslane and puncturevine can be controlled with products containing prodiamine, pendimethalin or isoxaben.

Difficult-to-Control Weeds

Weeds such as bindweed, thistles, and wild violets are difficult to control because they spread by underground stems. Multiple herbicide applications may be necessary to completely control difficult perennial weeds, including dandelions. Post-emergence broadleaf herbicides containing 2,4-D, MCPP, dicamba, triclopyr or sulfentrazone should be used.

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- For additional information on lawn care, refer to csuturf.colostate.edu.
- Colorado Master Gardener *GardenNotes* are available on-line at www.cmg.colostate.edu.
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Postemergence Weed Control Products for Home Lawns

Trade Name	Active ingredients	Grasses										Broadleaf Weeds														
		Annual bluegrass	Barnyardgrass	Bermudagrass	Crabgrass	Foxtail	Goosegrass	Pennisetum (fountain grass)	Sandbur	Bindweed	Black Medic	Clover	Dandelion	Knotweed	Kochia	Mallow	Oxalis (wood sorrel)	Plantain	Puncturevine	Purslane	Spurge	Star-of-Bethlehem	Thistle	Violet	Yarrow	
2,4-D Amine No. 4																										
2,4-D Selective Weed Killer	2,4-D																									
Ultra Turf Lawn Weed Control	2,4-D, Dicamba																									
Scotts Turf Builder With PLUS 2® Weed Control	2,4-D, MCPP																									
Hi-Yield Lawn Weed Killer																										
Ortho Weed-B-Gon Lawn Weed Killer																										
Spectrum Lawn Weed Killer 33 Plus																										
Rigo Super Lawn Weed Killer																										
Dragon Lawn Weed Killer																										
Spectracide Weed Stop 2x Weed Killer for Lawns																										
Green Light Wipe Out Broadleaf Weed Killer 2																										
Bonide Weed Beater Lawn Weed Killer	2,4-D, MCPP, Dicamba																									
Bayer Advanced All in One Weed Killer																										
Fertilome Weed Out Plus																										
Bonide Weed Beater Plus	2,4-D, MCPP, Dicamba, MSMA																									
Weed Whacker	2,4-D, 2,4-DP, MCPP																									
Spectracide Weed Stop for Lawns plus Crabgrass Killer	2,4-D, Dicamba, Quinclorac, Sulfentrazone																									
All-In-One Lawn Weed & Crabgrass Killer																										
Spectracide Weed Out with Q																										
Ortho Weed B Gon MAX® Plus Crabgrass Control	2,4-D, Quinclorac, Dicamba																									
Fertilome Weed Free Zone	2,4-D, MCPP, Dicamba, Carfentrazone																									
Chickweed, Clover and Oxalis killer	2,4-D, Triclopyr, Dicamba																									
Bonide Weed Beater ULTRA	MCPA, MCPP, Dicamba, Carfentrazone																									
Spurge Power																										
Ortho Weed B Gon MAX Weed Killer For Lawns	MCPA, Triclopyr, Dicamba																									
Ortho Weed B Gon Chickweed, Clover and Oxalis Killer																										
Turflon Ester	Triclopyr																									
Hi-yield 529 MSMA Weed Killer																										
Weed-B-Gon Crabgrass Killer for Lawns																										
Green Light MSMA Crabgrass Killer																										
Fertilome Crabgrass, Nutgrass and Dallisgrass Killer																										
Hi-yield Crabgrass Control	MSMA																									
Bermudagrass Control for Lawns	Fenoxaprop-p-ethyl																									
Drive Herbicide (also Drive XLR8)	Quinclorac																									
Grass Getter (formerly Poast)																										
Bonide Grass Beater	Sethoxydim																									

G means that good weed control may be achieved with the indicated product(s) if applied at the correct rate and under proper environmental conditions (as indicated on the product label)

L means that control will be limited or poor when using the indicated product(s).

Control of summer annual weeds (knotweed, purslane, spurge, kochia, puncturevine, sandbur, crabgrass, foxtail, barnyardgrass) will be more effective in late spring/early summer when weeds are young and smaller; herbicide effectiveness decreases as these weeds become larger and more mature in mid to late summer. Herbicide treatment of these summer annuals after 15 August will be ineffective and is not recommended (these weeds will be killed by the first hard frost).

Control of perennial weeds (dandelion, bindweed, thistle, clover, plantain, violet, yarrow, mallow) will be most effective when done in early fall, but late spring/early summer applications can also provide good control (especially of younger, less mature weeds).

Inclusion of product names does not imply endorsement or guarantee of effectiveness, nor does exclusion of any product imply criticism, by Colorado State University or the authors. Indications of efficacy are based on research conducted at Colorado State University and other universities. Before using any pesticide, read all label instructions. Proper use of pesticides is solely the responsibility of the user. Colorado State University is not responsible for damage or non-performance resulting from the use or misuse of any products listed here.