

## CONTROL OPTIONS FOR COMMON MINNESOTA LAWN AND LANDSCAPE WEEDS

Bob Mugaas, Krishona Martinson, Eleanor Burkett, Michelle Grabowski, Jeffrey Hahn, Karyn Vidmar, Sarah Jameson-Jones and Andrew Arlt, University of Minnesota Extension

	Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
<b>CREEPING, SPREADING, AND MAT-FORMING</b>				
<b>Black Medic (<i>Medicago lupulina</i>)</b>				
	Lawns, landscape plantings	Hand pulling; maintain adequate lawn nitrogen levels.	Preemergence Lawns: <a href="#">1</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	The herbicide dithiopyr will provide some preemergence control in lawns. Best time to apply postemergent broadleaf herbicides is early in the season when plants are small; repeat application may be needed for best control.
<b>White Clover (<i>Trifolium repens</i>)</b>				
	Lawns, landscape plantings	Small patches can be removed by hand being careful to get all rooted plantlets; maintain adequate lawn nitrogen levels.	Postemergence Lawns: <a href="#">5</a> Non-lawn: <a href="#">11, 13</a>	Products containing MCPP and/or triclopyr usually provide better results.
<b>Birdsfoot Trefoil (<i>Lotus corniculatus</i>)</b>				
	Lawns, landscape plantings, boulevards	Small patches and/or individual plants can be hand pulled; maintain adequate lawn nitrogen levels.	Postemergence Lawns: <a href="#">6</a> Non-lawn: <a href="#">11, 13</a>	Tolerates low mowing heights, poor growing conditions including drought and high salt content.
<b>Yellow Woodsorrel (<i>Oxalis stricta</i>)</b>				
	Lawns, landscape plantings	Hand pulling; get roots and rhizomes as they can grow new plants; in lawns encourage vigorous healthy grass growth.	Preemergence Lawns: <a href="#">1</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	Products containing 2,4-D + 2,4-DP or triclopyr usually provide better results. Postemergent herbicide applications are best done during daylight hours as leaves fold downward toward evening making it very difficult to get herbicide to stick onto the foliage.
<b>Prostrate Knotweed (<i>Polygonum aviculare</i>)</b>				
	Lawns, landscape plantings	Hand removal with limited number of plants; relieve soil compaction (aerate, i.e. core aeration) as it is well adapted to those conditions.	Preemergence Lawns: <a href="#">1</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	Products containing MCPP and dicamba usually provide better results. Best time to apply selective postemergent broadleaf herbicides is early in the season (April to early May) when plants are barely past seedling stage; repeat applications may be needed for more mature plants.

Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
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**Prostrate Spurge (*Euphorbia maculata*)**



Lawns, landscape plantings	Hand removal with limited number of plants; encourage vigorous healthy grass growth, supplying ample water as it is adapted to dry conditions	Preemergence Lawns: <a href="#">1</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	Apply selective, postemergence broadleaf herbicides in late spring to early summer when these annuals are still quite small, not practical to treat large mature mats later in the season.
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**Common Purslane (*Portulaca oleracea*)**



Landscape plantings, occasionally in lawns	Hand removal.	Preemergence Lawns: <a href="#">1</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	Purslane competes poorly in a healthy, vigorous lawn.
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**Common Chickweed (*Stellaria media*)**



Landscape plantings, occasionally in lawns	Hand removal; provide drier conditions and increase sunlight to encourage healthier turfgrass growth.	Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	Products containing MCPP and dicamba usually provide better results.  An annual whose seeds germinate late summer and into the fall, or sometimes early spring.
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**Mouse-ear Chickweed (*Cerastium vulgatum*)**



Lawns, landscape plantings	Hand removal; maintain healthy dense turfgrass.	Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	Products containing MCPP and dicamba usually provide better results.
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**Ground Ivy, Creeping Charlie (*Glechoma hederacea*)**



Lawns, landscape plantings	Hand removal; may need repeated removals several times to keep ground ivy in check.  Increase sunlight to improve turfgrass growing conditions and competitiveness.	Postemergence Lawns: <a href="#">7</a> Non-lawn: <a href="#">11, 13</a>	Products containing triclopyr usually provide better results.  Repeat applications may be necessary; best application times are fall and in spring at peak bloom.
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**Henbit (*Lamium amplexicaule*)**



Lawns, landscape plantings	Hand removal; maintain healthy dense turfgrass.	Postemergence Lawns: <a href="#">7</a> Non-lawn: <a href="#">11, 13</a>	Products containing MCPP, MCPA, dicamba and/or triclopyr usually provide better results.  Best treated with selective postemergence broadleaf herbicides in late summer to early fall or early spring.
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Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
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Heal-all (*Prunella vulgaris*)



Lawns, landscape plantings	Hand removal; may need repeated removals several times to keep Heal-all in check.  Increase sunlight to improve turfgrass growing conditions and competitiveness.	Postemergence Lawns: <a href="#">7</a> Non-lawn: <a href="#">11, 13</a>	Products containing MCPP, MCPA and dicamba usually provide better results.  Repeat applications may be necessary; best application times are fall and in spring at peak bloom.
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Common Mallow (*Malva neglecta*)



Lawns, landscape plantings	Hand removal; maintain healthy dense turfgrass, maintain mowing heights below 3 inches and mow regularly.	Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	
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Creeping Bellflower (*Campanula rapunculoides*)



Landscape plantings and other non-turfgrass areas; occasionally lawns	Hand removal, be sure to get all parts of the plant as any rhizomes left behind will begin to regrow, extensive digging may be required.	Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	In turfgrass areas, selective, postemergence products containing dicamba usually provide better results; resistant to 2,4-D; several repeat applications are usually necessary.  While it won't flower in lawns due to regular mowing, it can spread and create rather large patches of low growing foliage.
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Creeping Yellowcress (*Rorippa sylvestris*)



Landscape plantings and other non-turfgrass areas; occasionally lawns	Hand removal, be sure to get all parts of the plant as any rhizomes left behind will begin to regrow.	Postemergence Lawns: <a href="#">4</a> Non-lawn: <a href="#">11, 13</a>	In turfgrass areas, selective, postemergence products containing dicamba usually provide better results; several repeat applications may be necessary; spring or fall treatments best.  More of a problem in landscape beds than lawns; can form large patches in either dry or moist soil.
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GRASSES

Large Crabgrass (*Digitaria sanguinalis*) and Smooth Crabgrass (*Digitaria ischaemum*)



Lawns and landscape plantings	Hand removal where limited number of plants are present, not practical for larger lawn areas; maintain minimum 2.5 to 3.0 inch mowing heights and good turfgrass density.	Preemergence Lawns: <a href="#">1</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">8</a> Non-lawn: <a href="#">13, 14</a>	Lawn preemergence products should be watered in with about ¼ to ½ of water right after application to improve effectiveness.
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Foxtail – Yellow, Green and Giant (*Setaria species*)



Lawns and landscape plantings	Hand removal where limited number of plants are present, not practical for larger lawn areas; maintain minimum 2.5 to 3.0 inch mowing heights and good turfgrass density.	Preemergence Lawns: <a href="#">1</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">8</a> Non-lawn: <a href="#">13, 14</a>	Lawn preemergence products should be watered in with about ¼ to ½ of water right after application to improve effectiveness.
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Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
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**Barnyardgrass (*Echinochola crus-galli*)**



Lawns and landscape plantings	Hand removal where limited number of plants are present, not practical to do over entire lawn area; maintain minimum 2.5 to 3.0 inch mowing heights and good turfgrass density.	Preemergence Lawns: <a href="#">1</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">8</a> Non-lawn: <a href="#">13, 14</a>	Lawn preemergence products should be watered in with about ¼ to ½ of water right after application to improve effectiveness.
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**Longspine Sandbur (*Cenchrus longispinus*)**



Lawns and landscape plantings	Hand remove limited number of plants, not entire lawn; increase moisture to favor turfgrass, plant thrives in warm, dry sites; maintain 2.5 to 3.0 inch mowing heights and good turfgrass density.	Preemergence: Lawns: <a href="#">2</a> Non-lawn: <a href="#">3</a>  Postemergence Lawns: <a href="#">8</a> Non-lawn: <a href="#">13</a>	Lawn preemergence products should be watered in with about ¼ to ½ of water right after application to improve effectiveness.
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**Creeping Bentgrass (*Agrostis palustris*)**



Lawns	Hand removal difficult, due to creeping stems (stolons) that spread into surrounding grass plants; improve drainage and grow lawn drier as plant becomes less competitive.	Postemergence Lawns: <a href="#">10</a>	/
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**Quackgrass (*Elytrigia repens*)**



Lawns and landscape plantings	Hand removal very difficult due to the creeping underground stems (rhizomes) that easily break apart and remain in the soil to grow new plants.	Postemergence Lawns: <a href="#">10</a> Non-lawn: <a href="#">13, 14</a>	Do not till without first removing or killing the existing plants. Tillage can spread underground rhizomes and increase the weed population.
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**Tall Fescue (*Festuca arundinacea*)**



Lawns	Hand removal where limited number of plants (clumps) exist, not practical over large areas.	Postemergence Lawns: <a href="#">10</a>	/
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**Rough Bluegrass (*Poa trivialis*)**



Lawns	Hand removal difficult due to creeping stems (stolons) that spread into surrounding grass plants; improve drainage and grow lawn drier as plant is very intolerant of dry conditions.	Postemergence Lawns: <a href="#">10</a>	/
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Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
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### Reed Canarygrass (*Phalaris arundinacea*)



Non-turgrass areas, wetlands, shoreline areas	Hand removal difficult due to creeping underground stems (rhizomes); not commonly a lawn weed; intolerant of regular mowing and will likely disappear over time with this.	Postemergence Lawns: <a href="#">10</a> Non-lawn: <a href="#">13</a>	When using glyphosate in or near water areas, aquatic labeled glyphosate products (e.g. Rodeo) must be used. A DNR permit may be required when applying chemical treatments on or near the water (i.e., below the ordinary high water line)
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## SEDGES

### Yellow Nutsedge (*Cyperus esculentus*)



Lawns and landscape plantings, common in moist areas but can survive in drier conditions	Hand removal difficult as stems break off from underground tubers which can then regrow and produce new plants; persistent removal may eliminate plants.	Postemergence Lawns: <a href="#">8, 9, 10</a> Non-lawn: <a href="#">13</a>	Tubers are swollen portions of underground stems which aid in food storage for the plant.
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## UPRIGHT

### Hemp, a.k.a Marijuana (*Cannabis sativa*)



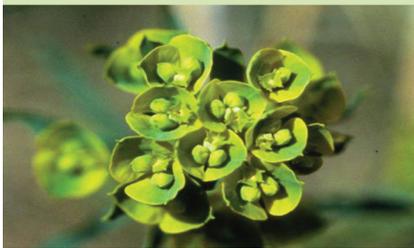
Prairie plantings, meadows	Mowing prior to flowering.	Postemergence Non-lawn: <a href="#">11, 13</a>	Combinations of the broadleaf herbicides 2,4-D, MCPP, MCPA and dicamba may be more effective. Spring herbicide applications to plants less than 8" tall.
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### Purple Loosestrife (*Lythrum salicaria*)



Sunny moist areas in the landscape, shorelines, wetlands	Hand pulling and removing of roots. Consider biological control for large infestations.	Postemergence Non-lawn: <a href="#">13</a>	Nonselective herbicide applied during bud or early flowering. When using glyphosate in or near water areas, aquatic labeled glyphosate products (e.g. Rodeo) must be used. A DNR permit may be required when applying chemical treatments on or near the water (below the ordinary high water line).
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### Leafy Spurge (*Euphorbia esula*)



Landscape plantings, meadows, prairie plantings	Hand pulling and removing of roots. Consider biological control for large infestations.	Postemergence Non-lawn: <a href="#">11, 13</a>	Susceptible to 2,4-D, dicamba, and/or quinclorac applied when true flowers and seeds developing or in fall after stems have developed new regrowth, i.e. around late September. Glyphosate is best applied after seeds have begun development in midsummer or after fall regrowth has begun but before a killing frost. May require multiple applications.
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	Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
<b>Wild Parsnip (<i>Pastinaca sativa</i>)</b>				
	Prairie plantings, meadows	Hand pulling, wearing gloves. Mowing in the second year prior to flowering.	Postemergence Non-lawn: <a href="#">11, 13</a>	Nonselective late fall or early spring applications of glyphosate or selective applications of 2,4-D may be more effective.  This plant causes skin blistering in humans and livestock. Do not compost.
<b>Oxeye Daisy (<i>Leucanthemum vulgare</i> or <i>Chrysanthemum leucanthemum</i>)</b>				
	Prairie plantings, meadows, occasionally turf grass areas	Repeated pulling of small infestations is effective; mowing will minimize flowering in lawns but physically removing the plants will be necessary for complete control.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">11, 13</a>	Postemergence herbicide applications are best applied when the plant is actively growing in the rosette through flowering stage.
<b>Tansy (<i>Tanacetum vulgare</i>)</b>				
	Woodland edges, prairie areas, meadows; more common in the northern half of MN	Repeated pulling of small infestations is effective.	Postemergence Non-lawn: <a href="#">11, 13</a>	Nonselective late fall or early spring applications of glyphosate and/or selective applications of 2,4-D usually provides good results.
<b>Stinging Nettle (<i>Urtica dioica</i>)</b>				
	Woodland edges, wetland edges, meadows, landscape plantings, prairie plantings	Mow/cut close to ground to prevent flowering and seed formation; dig out roots and rhizomes Avoid contact with foliage and stem pieces; wear gloves and clothing when removing.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">11, 13</a>	Combination selective postemergence herbicide products that include 2,4-D, 2,4-DP, MCPA and dicamba are usually more effective than other combinations or when used separately.  Repeat applications of herbicides may be needed.
<b>Hoary Alyssum (<i>Berteroa incana</i>)</b>				
	Landscaped areas, boulevards, meadows, prairie plantings, occasionally in lawns	For small infestations, hand digging and mowing prior to flowering; if in flower hand digging and mowing prior to seed set.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">11, 13</a>	Combination selective postemergence herbicide products that include 2,4-D, 2,4-DP, MCPA and dicamba are usually more effective than when used separately.  Repeat applications of herbicides may be needed.
<b>Perennial Sowthistle (<i>Sonchus arvensis</i>)</b>				
	Landscapes, meadows	Mowing prior to flowering. Mowing alone takes several years to control perennial weeds.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">12, 13</a>	Fall applications usually provide better results.

Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
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**Bull Thistle (*Cirsium vulgare*)**



Landscapes, lawns, meadows	Hand pulling, wearing gloves. Mowing in the second year prior to flowering.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">12, 13</a>	Fall applications usually provide better results.
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**Canada Thistle (*Cirsium arvensis*)**



Landscapes, lawns, meadows	Mowing prior to flowering. Mowing alone takes several years to control perennial weeds.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">12, 13</a>	Fall applications usually provide better results.
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**Musk Thistle, a.k.a. Nodding Thistle (*Carduus nutans*)**



Landscapes, lawns, meadows	Hand pulling, wearing gloves. Mowing in the second year prior to flowering.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">12, 13</a>	Fall applications usually provide better results.
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**Plumeless Thistle (*Carduus acanthoides*)**



Landscapes, meadows	Hand pulling, wearing gloves. Mowing in the second year prior to flowering.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">12, 13</a>	Fall applications usually provide better results.
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**Common Burdock (*Arctium minus*)**



Landscapes, woodland edges, occasionally lawns	Hand pulling, wearing gloves. Mowing in the second year prior to flowering.	Postemergence Lawns: <a href="#">4, 10</a> Non-lawn: <a href="#">13</a>	Note: selective applications of 2,4-D or dicamba to rosettes and second year plants prior to flowering usually provides good results.
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**VINING**

**Field Bindweed, a.k.a. Creeping Jenny (*Convolvulus arvensis*)**



Landscape plantings, meadows, uncultivated areas	Hand pulling, repeated cultivation and tillage.	Postemergence Non-lawn: <a href="#">11, 13</a>	Note: selective fall application of herbicides containing 2,4-D and dicamba usually provide better results. May require multiple applications.
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	Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
<b>Wild Buckwheat (<i>Polygonum convolvulus</i>)</b>				
	Landscape beds, prairie plantings, gardens, meadows, uncultivated areas	Hand remove/dig seedlings and small plants (i.e., less than 2 ft. in height); cut larger plants stems near ground level and before flowering; take similar action if regrowth from roots occurs.	Postemergence Non-lawn: <a href="#">11, 13</a>	Herbicides should only be used before vines begin climbing up and over other desirable plants; even at that, extreme care should be taken not to get any herbicides on nearby desirable plants.
<b>Dodder (<i>Cuscuta spp.</i>) Federally listed noxious weed</b>				
	Landscape plantings, shrub borders, foundation plantings, flower and vegetable gardens	Hand remove small plants prior to vining on desirable plants; if on desirable plants it is often best to dig out/remove both plants; it is extremely difficult to separate the two after infestation.	Postemergence Non-lawn: <a href="#">18</a>	Dodder is a parasitic plant living off its host plant for all water and nutrient needs. Hence once a plant is infested and the dodder is anchored to that host plant tissue, it is best to destroy that entire plant(s) along with the dodder to minimize further spread to other plants.
<b>Wild Cucumber (<i>Echinocystis lobata</i>)</b>				
	Moist rich soil in areas such as woodland edges, landscapes, thickets	Hand remove/dig seedlings until small plant stage (i.e., less than 2 ft. in length); cut larger plant stems near ground level and before flowering; take similar action if regrowth from roots occurs.	Postemergence Non-lawn: <a href="#">11, 13</a>	Herbicides should only be used before vines begin climbing up and over other desirable plants; even at that, extreme care should be taken not to get any herbicides on nearby desirable plants.
<b>Virginia Creeper (<i>Parthenocissus quinquefolia</i>)</b>				
	Rich fertile, woodland soils and edges; over and along fences; may appear as a groundcover plant	Cutting or pulling seedlings in small patches; hand digging of smaller to medium-sized plants.	Postemergence Non-lawn: <a href="#">15</a>	
<b>Wild Grape (<i>Vitis riparia</i>)</b>				
	Rich fertile, woodland soils and edges; over and along fences; along streams and lakeshores	Cutting or pulling seedlings in small patches or burning (permit may be required).	Postemergence Non-lawn: <a href="#">15</a>	
<b>Poison Ivy (<i>Toxicodendron radicans</i>)</b>				
	Open woodlands, woodland edges, landscape plantings	Hand pull, wearing gloves and leg protection. Be extremely careful when working with/around plant; can cause serious skin rash and allergic reactions. Years of cutting may kill plant.	Postemergence Non-lawn: <a href="#">16</a>	DO NOT BURN! Absolutely <i>NEVER</i> burn poison ivy as the soot and smoke can still cause severe allergic reactions, including serious skin rashes and respiratory problems.

Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
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**BASAL**

**Broadleaf Plantain (*Plantago major*)**



Lawns, landscape plantings

Hand pull, remove the fibrous roots. Easiest when plants are small and conditions are moist.

Post emergence:  
Lawns: [4](#)  
Non-lawn: [11, 13](#)

Best time for applying herbicides is early spring or late summer into early fall when plants are actively growing.

**Dandelion (*Taraxacum officinale*)**



Lawns, landscape plantings

Digging taproot; several inches of taproot must be removed to minimize the chance of regrowth.

Post emergence:  
Lawns: [4](#)  
Non-lawn: [11, 13](#)

Best time for applying herbicides is early spring or late summer into early fall when plants are actively growing.

**Common Blue Violet, a.k.a Wild Violet (*Viola papilionacea*)**



Patches grow in shady moist areas, drought tolerant when mature

Hand pulling or digging; must remove rhizome parts.

Postemergence  
Lawns: [4](#)  
Non-lawn: [11, 13](#)

Best time for applying herbicides is early spring or late summer into early fall when plants are actively growing; products containing the herbicide triclopyr are generally more effective.  
  
May be a desirable ground cover in most, shady areas that are unsuitable for turf grasses.

**Garlic Mustard (*Alliaria petiolata*)**



Woodlands, shady areas

Hand pulling, removing or cutting the flower stalk at ground level, or burning (permit may be required).

Postemergence  
Non-lawn: [11, 13](#)

Early spring or fall applications of non-selective glyphosate when native species are dormant. Combinations of 2,4-D and dicamba can also be effective in that same time frame. Multiple applications often required.

**Spotted Knapweed (*Centaurea maculosa*)**



Landscapes, prairie plantings, meadows

Early detection and pulling, mowing at peak flowering and remove flowers from site; prescribed burning (only very hot fires are effective which may also damage native plants).

Postemergence  
Lawns: [4, 10](#)  
Non-lawn: [13](#)

The selective broadleaf herbicide 2,4-D used alone is not effective; best used in combination products that include dicamba or triclopyr.  
  
Wear long sleeves and gloves as may be a skin irritant to some people.

**Perennial Sowthistle (*Sonchus arvensis*)**



Landscapes, meadows

Mowing prior to flowering. Mowing alone takes several years to control perennial weeds.

Postemergence  
Lawns: [4, 10](#)  
Non-lawn: [12, 13](#)

Fall applications usually provide better results.

Most Common Locations	Cultural Control Options	Chemical Control Strategies	Additional Weed Control Information
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WOODY (TREE AND SHRUB)

Common Buckthorn (*Rhamnus cathartica*)



Tall understory shrub or small tree in woods and woodland edges

Cutting or pulling seedlings or small trees (limited success) or burning.

Postemergence  
Non-lawn: [17](#)

A MN Restricted Noxious Weed – it cannot be bought, sold, or transported in MN.

Glossy Buckthorn (*Rhamnus frangula*)



Understory shrub or small tree in woods and woodland edges, more tolerant of moist soil conditions

Cutting or pulling seedlings or small trees (limited success) or burning.

Postemergence  
Non-lawn: [17](#)

A MN Restricted Noxious Weed – it cannot be bought, sold, or transported in MN.

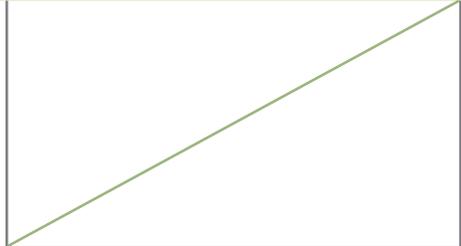
Exotic Honeysuckles (*Lonicera tartarica*, *L. morrowii*, and *L. x bella*)



Old fields, marshes, roadsides, woodlands and woodland edges

Cutting or pulling seedlings or small trees (limited success) or burning.

Postemergence  
Non-lawn: [17](#)



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## Weed Control Strategies

Bob Mugaas, Krishona Martinson, Eleanor Burkett, Michelle Grabowski, Jeffrey Hahn, Karyn Vidmar, Sarah Jameson-Jones and Andrew Arlt, University of Minnesota Extension

### Preemergence

#### 1) Lawns - Preemergence, Selective

Selective, preemergence herbicides are typically used to control annual weedy grasses and some annual broadleaf weeds in lawns. Commonly available homeowner products contain one of the following active ingredients: pendimethalin, balan + trifluralin (trade name **Team**), balan, dithiopyr, corn gluten meal, and siduron (only one that can be used when reseeding). The herbicide prodiamine is available to commercial applicators but not available in the homeowner market, at least in the Twin Cities area. The herbicide isoxaben can be used to control certain broadleaf weeds preemergently in lawns but it too is not available for homeowner use. **Always consult the product label as to whether or not the herbicide will control the targeted weed and that it is labeled for use on the lawn.**

#### 2) Lawns - Preemergence, Selective

Unlike many of the other warm season annual grasses, **longspine sandbur (*Cenchrus longispinus*) is difficult to control in lawns** with preemergent herbicides. While long-spined sandbur is not specifically mentioned on the dithiopyr label, it does mention sandburs (*Cenchrus* spp.) generally as weeds the product will control. It should also be noted that field sandbur (*Cenchrus incertus*), which is **NOT** found in this area, is sometimes listed on the labels of other products (e.g., pendimethalin [lawns], oryzalin [non-lawn areas]) as a weed controlled by those products. One should not necessarily assume that longspine sandbur will be controlled if the product lists only field sandbur on its label.

#### 3) Non-lawns - Preemergence, Selective

Selective, preemergence herbicides can also be used in shrub borders, annual and perennial flower beds and in groundcover areas. In some cases the active ingredients will be the same as those mentioned for use on lawns. However, additional herbicides include isoxaben, oxidiazon, trifluralin and oryzalin. Only trifluralin and oryzalin are available for homeowner use. Isoxaben and oxidiazon are not typically available in the Twin Cities homeowner market. **Always consult the product label as to whether or not the herbicide will control the targeted weed and that it is labeled for use on/in the desired garden plants or landscape planting area.**

### Postemergence (Lawns)

#### 4) Selective - Postemergence (Lawns)

Selective, postemergence broadleaf herbicides can be used to control these weeds in lawns. Commonly available homeowner products contain one or more of the following active ingredients: 2,4-D, 2,4-DP, MCPP, MCPA, dicamba, triclopyr, carfentrazone, sulfentrazone, quinclorac. **Make sure that the products being used state on the product label that they are for lawn use.**

#### 5) Selective - Postemergence (Lawns)

In general, more effective control of **white clover** can be achieved with products containing MCPP and/or triclopyr. These can be found separately or in combination with many of the active ingredients mentioned for **Strategy 4**. Fall applications usually provide better results.

## 6) Selective - Postemergence (Lawns)

Control of **birdsfoot trefoil** will usually be more effective with combination products of selective, postemergence herbicides such as 2,4-D + MCPP + dicamba *or* MCPP + MCPA + dicamba + carfentrazone *or* triclopyr in combination with one or more of the active ingredients above. Apply herbicides in spring as new growth is developing or in early September to early October when temperatures cool and the plant is more actively growing.

## 7) Selective - Postemergence (Lawns)

Selective, postemergence control of **mint family plants** (e.g., creeping Charlie, henbit, heal-all) is usually more effective with products containing triclopyr, either by itself or in combination with one or more of the materials mentioned in **Strategy 4**. It has also been reported that control of these same mint family plants is rather poor when only 2,4-D is used. The use of the product Borax has also been reported. [Click here](#) for more information about its use in controlling Creeping Charlie.

## 8) Selective - Postemergence (Lawns)

A common homeowner available postemergence herbicide for **selective control of warm season annual grasses** is MSMA (monosodium methanearsonate). It can be purchased separately or in combination with selective broadleaf herbicides. This product should not be used when lawn grasses are under heat and drought stress as injury or even dieback of those lawn grasses may occur. Two other products with similar uses are DSMA (disodium methanearsonate) and CMA or CAMA (calcium acid methanearsonate) can also be found for homeowner use. The same cautions as for MSMA also apply to these two herbicides.

The postemergence herbicide quinclorac is also quite effective in controlling warm season annual grasses. For homeowners, it is only available in combination with other broadleaf postemergence herbicides. Another commonly available herbicide to the commercial lawn care industry but not homeowners is fenoxaprop (Trade name *Acclaim Extra*).

## 9) Selective - Postemergence (Lawns)

Other postemergence materials for controlling **yellow nutsedge** in lawns include halosulfuron and bentazon but they are only available to commercial lawn care providers.

## 10) Non-selective - Postemergence (Lawns)

Non-selective, postemergence herbicides can be used to control **perennial grassy weeds** such as quackgrass, tall fescue, and creeping bentgrass in home lawns as well as many different **broadleaf weeds**. The most common active ingredients for home use include glyphosate (e.g., Round-Up among many others) and glufosinate ammonium (e.g., Finale). ***Since both the weedy plants AND lawn grasses will be killed by these products, you will need to reseed or resod the treated areas.*** Typically that can occur in 10 to 14 days after treatment. However, be sure to follow product label directions exactly for use and application.

## Postemergence (Non-lawn)

### 11) Selective - Postemergence (Non-lawn)

Some of the selective, postemergence broadleaf herbicide active ingredients contained in **Strategy 4** may also be found in products for use in non-lawn areas; often at higher concentrations. Be *very* careful, when using these materials in and around desirable broadleaf plants such as garden flowers, wildflowers, trees and shrubs as they can cause serious injury and even death to those plants should they come in contact with the herbicide. **Always explicitly follow product label directions for use.**

### 12) Selective - Postemergence (Non-lawn)

*Thistles* can be controlled with selective herbicide applications of 2,4-D or triclopyr at the pre-flower bud stage of growth. May require multiple applications. Non-selective herbicides can also be used at that same stage. This too may require multiple applications. Fall treatment of the rosette (i.e., circular basal cluster of leaves) stage of growth with either of the selective herbicides mentioned or the non-selective herbicide glyphosate can also be done.

### 13) Non-selective - Postemergence (Non-lawn)

**Non-selective, postemergence herbicides** are most commonly used in non-lawn areas. Common postemergence, non-selective herbicide active ingredients for home use include glyphosate and glufosinate ammonium. As the term non-selective implies, these products will destroy all of the vegetation, grasses and broadleaves, that they contact. Therefore, be *very* careful, when using these materials in and around desirable broadleaf plants such as garden flowers, wildflowers, trees and shrubs as they can cause serious injury and even death to those plants should they come in contact with the herbicide. *The herbicide Rodeo is the glyphosate product labeled for use in or near water areas.* **Always explicitly follow product label directions for use.**

### 14) Selective - Postemergence (Non-lawn)

Sethoxydim and fluzifop-p-butyl are two homeowner available selective postemergence herbicides for taking **grassy weeds out of broadleaf plantings** such as flower beds, groundcovers or shrub borders. However, do not use them where there is potential to contact ornamental grasses as they can injure them as well. These two herbicides do not control broadleaf weeds.

### 15) Non-selective - Postemergence (Non-lawn)

**Control of the woody vines Virginia creeper and wild grape** are somewhat similar. Glyphosate applications are best applied from late August through late September but before a frost. If it is growing among other desirable plants, one will need to be very careful when treating these vines with glyphosate or any other broadleaf herbicide to avoid injuring or killing them. Where they are growing among desirable plants and the above mentioned controls would be too risky, these vines can be cut off near the soil line and the stumps treated with a combination of glyphosate or triclopyr or a combination of the two. These treatments can be performed from late summer all the way through late fall and generally provide good control come the following spring.

## 16) Non-selective or Selective - Postemergence (Non-lawn)

Several herbicide active ingredients are effective in **poison ivy control**. Products containing a combination of the selective broadleaf herbicides, 2,4-D, 2,4-DP, MCPP, MCPA, dicamba and triclopyr can effectively control poison ivy. However, repeated applications of the any regrowth will be necessary until the plant is finally killed. The non-selective herbicides glyphosate and glufosinate ammonium can also be used although glyphosate is moved through the plant more readily and usually results in quicker control. Even with these products, repeat applications will likely be needed.

Where poison ivy grows among desirable plants such as wild flowers, ferns, woody shrubs and trees, always be extremely careful with any herbicide used such that the product only contacts the **poison ivy** as other plants can easily be damaged or killed with these same products. Cut stump treatments with glyphosate and/or triclopyr can also be effective. **Always read the product label for specific application directions. POISON IVY CAN CAUSE SEVERE ALLERGIC REACTIONS IN PEOPLE AND ONE SHOULD ALWAYS BE WEARING PROTECTIVE CLOTHING SUCH THAT ANY HUMAN CONTACT WITH ANY PART OF THE POISON IVY PLANT CAN BE AVOIDED.**

## 17) Non-selective - Postemergence (Non-lawn)

**Cut stump treatments** with the herbicides glyphosate, triclopyr or a combination of both are effective ways to prevent regrowth of *either common or glossy buckthorn*, or the exotic honeysuckle shrubs. The herbicide triclopyr can be applied to the lower stem area a foot or two above the soil line for control as well. These treatments can be performed from late summer all the way through late fall and generally provide good control come the following spring.

Small plants with foliage, under a couple of feet, can be treated with a variety of broadleaf weed killers such as those mentioned in Section III. For buckthorn, this is best done in early spring or late summer into early fall as these plants leaf out early and retain green foliage well into the fall period. **Be very cautious** when applying broadleaf weed killers in and around desirable plants located in the same general areas as the buckthorn or honeysuckles. They have the potential to injure or kill other broadleaf plants as well. For a more detailed discussion of buck thorn control [click here](#).

## 18) Non-selective - Postemergence (Non-lawn)

**Dodder** is very difficult to control chemically and is really best accomplished with preemergence herbicides that kill the germinating dodder seedlings. Products such as pendimethalin, balan, trifluralin, prodiamine (available through commercial pesticide applicators only), and oryzalin are reported to be effective along with the preemergent herbicide dichlobenil. **Preemergence herbicides would need to be applied by early to mid-May to be effective.** The postemergent herbicide glyphosate has also been shown to be effective but it will damage or destroy the infested plant as well as the dodder. Broadleaf herbicides such as those mentioned in **Section 11** have not been shown to be effective and, again, the infested plant can be damaged or killed with these products as well. **Always explicitly follow product label directions for use.**

