



## COMMON TURF WEEDS

### **Annual Bluegrass (*Poa annua*)**

Annual bluegrass is a light green, low growing bunch grass. It's easy to pick out in most lawns because of it's light color. The contrast is even more pronounced when bluegrass send up their seed heads. It has a divided collar and boat-shaped leaf tips. Annual bluegrass does well in lawns that are cut short. It also likes areas with low pH, compaction, poor drainage and/or shade. When turf is fertilized at improper times and given frequent light watering, tends to favor annual bluegrass. In irrigated lawns, annual bluegrass seeds can germinate and persist through the fall growing season.



**Annual bluegrass**



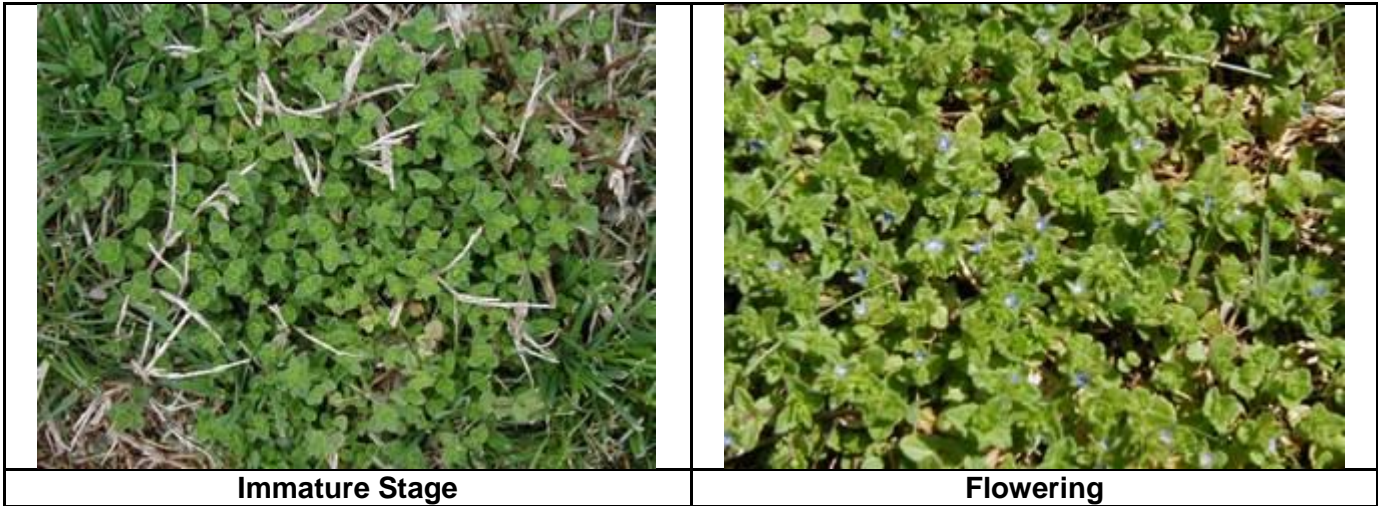
**Annual bluegrass in Kentucky bluegrass**

**Control:** Management controls begin with getting a soil test and adjusting the pH as needed. Reduce fertilizer applications. Measure turf area and calibrate spreader to insure appropriate rates of fertilizer are applied. Improve surface drainage by aeration and topdressing with compost. Increase mowing height and overseed thin areas to limit the ability of this weed to establish in the lawn. Clean mowing equipment between using the mower in an area with annual bluegrass and a annual bluegrass free area to avoid spreading seeds.

Many crabgrass pre-emergent herbicides can be used to control large infestations of annual bluegrass when applied in late summer or early fall. Pre-emergent use may interfere with overseeding. It's important to read the herbicide label carefully to ensure that the pre-emergent can be applied when needed and not interfere with seeding plans.

### **Corn Speedwell (*Veronica arvensis*)**

Corn speedwell is a small, low-growing annual that often goes unnoticed. Speedwell can be a common weed problem in newly established areas of cool-season turfgrass. The upper and lower leaves of corn speedwell differ in appearance and arrangement. Lower leaves are rounded, toothed and arranged opposite. Upper leaves are smaller, pointed and arranged alternate. The entire plant is covered in soft, white hairs. Corn speedwell produces small, bright blue flowers.

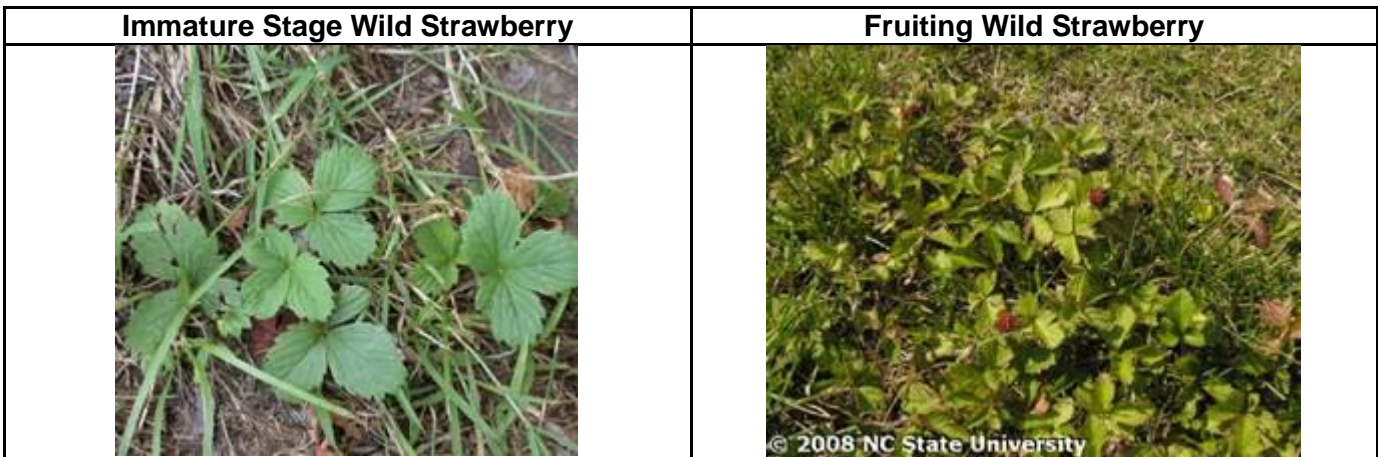


**Control:** Control is often difficult due to speedwell's inconspicuous nature. Typically, by the time it's noticed it has already flowered or set seed. Speedwell is often found in dry areas with low soil fertility. Improving the turf with overseeding, proper fertilization and proper irrigation can help prevent speedwell.

Speedwell dies shortly after flowering but post-emergent herbicides are more effective when applied prior to flowering. Hand pulling works well to remove speedwell. Isoxaben can be used as a pre-emergent in the fall.

**Wild Strawberry (*Fragaria virginiana*)**

Wild strawberry is a perennial weed that spreads by runners. It has trifoliate leaves that are toothed and hairy. This weed prefers moist, shady conditions.



**Control:** Cultural controls include improving drainage and selective pruning of nearby trees and shrubs. Wild strawberry is difficult to control with broadleaf herbicides. It has some tolerance to many chemical formulas available to homeowners. When herbicides are used, they are most effective when applied in the fall.

**Buttercups (*Ranunculus sp*)**

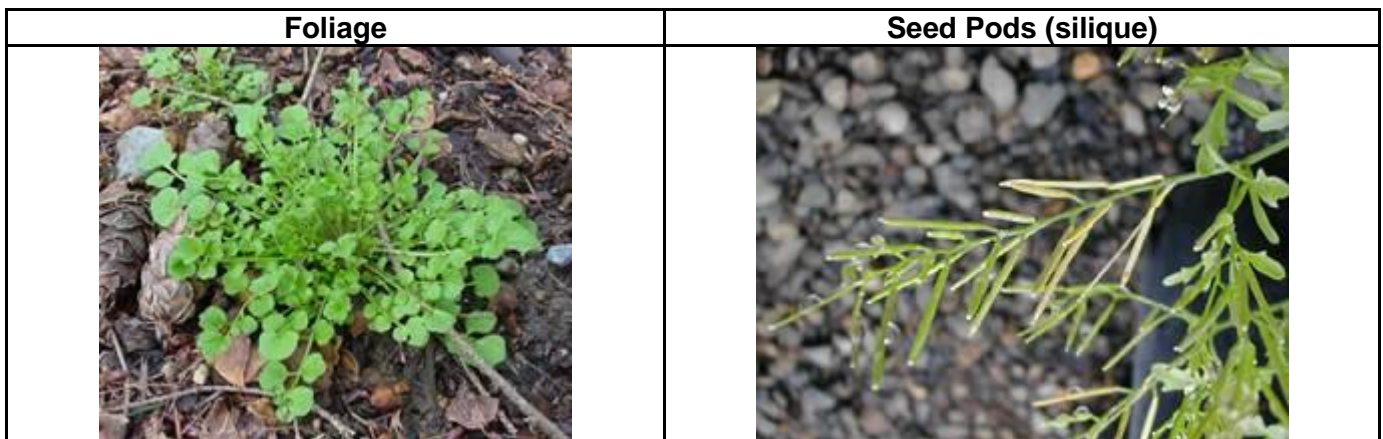
There several species of buttercups that can invade home lawns. All are similar in appearance and have small, cupped yellow flowers. Buttercups species can act as cool season annuals or perennials depending on local conditions. Buttercups do well in wet/poorly drained soil and soils with high fertility.



Control: Management of all buttercups is similar. Manage fertility to favor turf by fertilizing based on soil testing and adjusting how much nitrogen is applied. Measure turf area and calibrate spreaders to insure appropriate rates of fertilizer are applied. Improve surface drainage. Increase mowing height and overseed thin areas to limit the ability of these weeds to establish in the lawn. Herbicide controls are available for buttercup. They are most effective when applied in the spring or in the fall.

**Bittercress (*Cardamine hirsuta*.)**

Bittercress is common weed that can grows in a rosette. It has deeply loped leaves that are larger at the base of the plant than the top. Small white flowers are held in clusters at the top of branches. Bittercress seeds germinate in 5 days and can produce seed 5 weeks after germination.





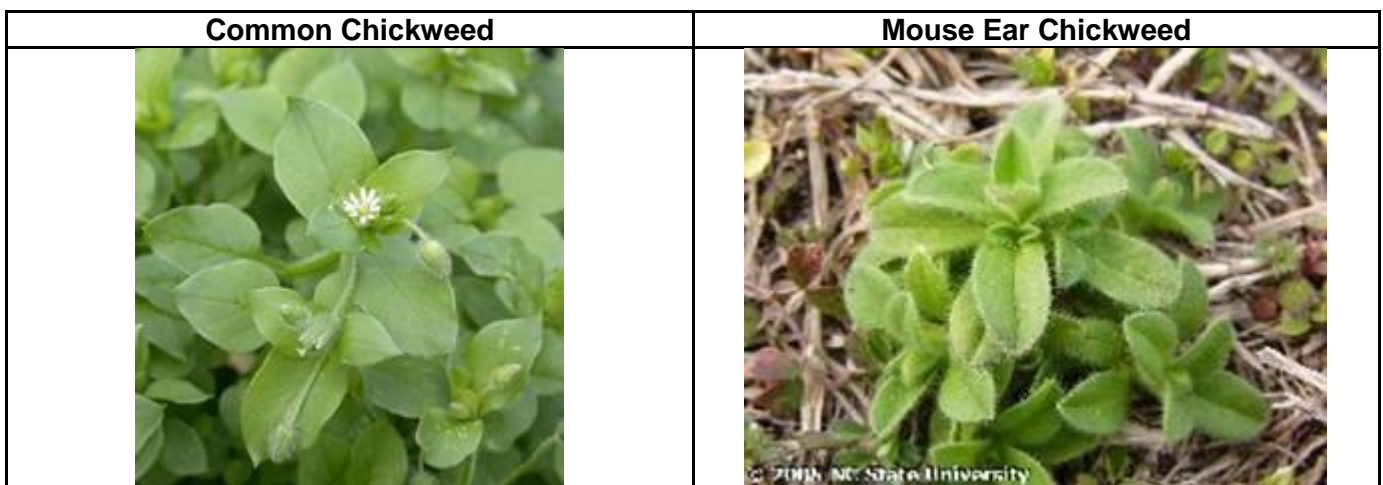
**Control:** Manage fertility to favor turf by fertilizing based on soil testing and adjusting how much nitrogen is applied. Improve surface drainage. Where appropriate, selective prune to reduce shade. Overseed thin areas to limit the ability of these weeds to establish in the lawn.

Many post-emergent herbicide control options are available for bittercress. They are most effective when applied in the spring or in the fall. Care should be taken in herbicide timing as weather must be warm enough for the plant to be actively growing for effect post-emergent herbicides to be effective. Isoxaben can be used to prevent. Unfortunately, isoxaben is not always easy to find and can be expensive.

**Common Chickweed (*Stellaria media*) and Mouse Ear Chickweed (*Cerastium vulgatum*)**

Common and mouse ear chickweed are among the most common cool season weeds. Common chickweed is an annual, while mouse ear chickweed is either an annual or perennial. Chickweed prefers heavy, wet/poorly drained soil and does well in the shade.

**Telling the Two Apart:** Mouse ear chickweed is so called because it's small, cupped leaves which are covered in small hairs. Common chickweed is has little to no hair on it's leaves. In mature plants, mouse ear chickweed leaves tend to be medium to dark green while common chickweed leaves are light green.



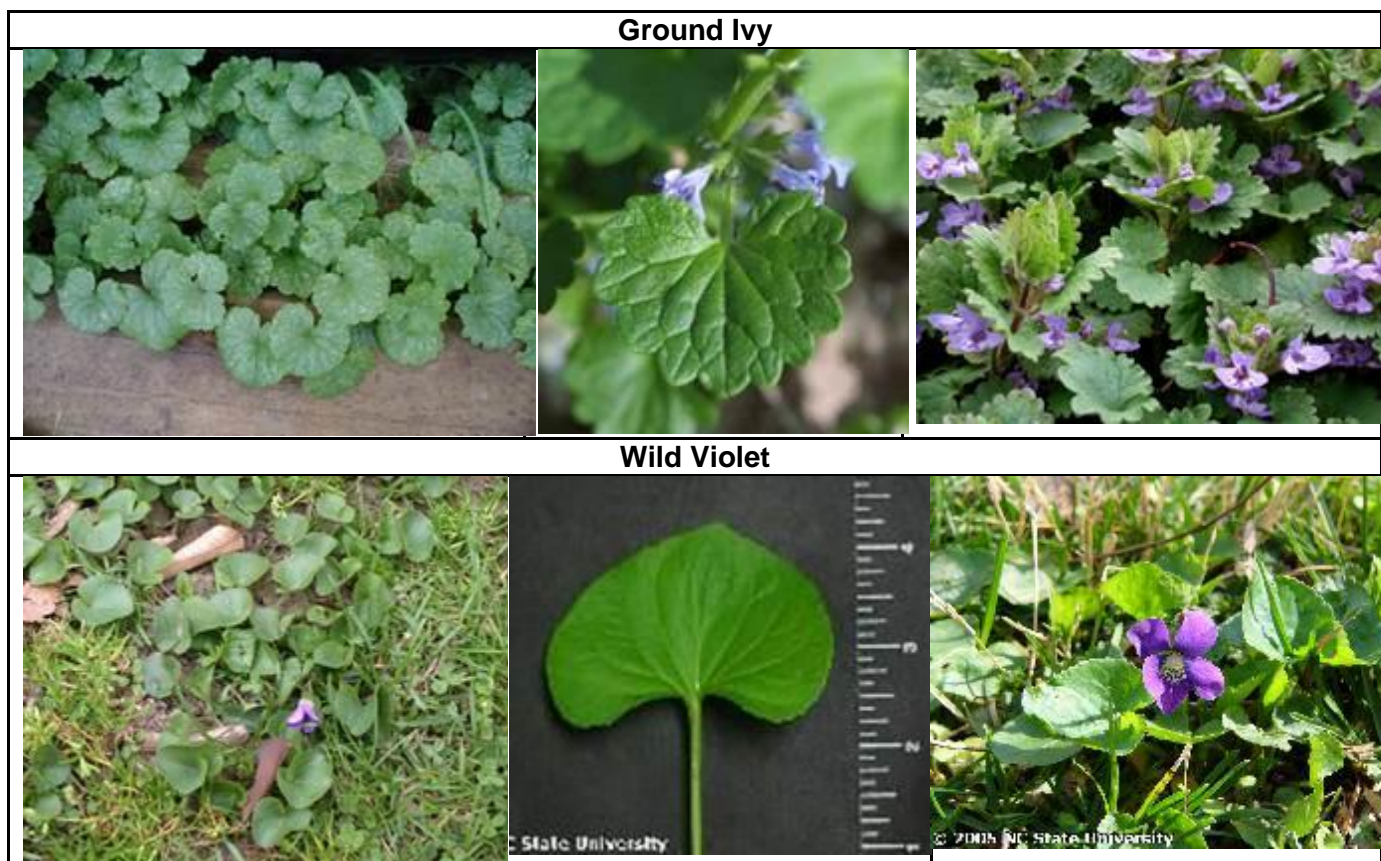
Control: Improve drainage, aerate and top dress with compost, mow high and overseed to thicken the lawn. These steps can all help make conditions more favorable for turf than chickweed. Where practical, selective pruning of nearby trees and shrubs to increase light will also help grass compete with chickweed.

Hand pull before flowering when possible. Isoxaben can be used to prevent common chickweed, but has no effect on mouse ear chickweed where it grows as a perennial. There are a variety of broadleaf herbicides that will work on both chickweeds. Fall and spring are the recommended times to treat.

### **Ground Ivy aka Creeping Charlie (*Glechoma hederacea*) and Wild Violet (*Viola sp*)**

Ground ivy and wild violet are stubborn weeds with similar appearance. Ground ivy is a sprawling weed that grows well in moist soils under shade and in full sun. It also likes wet/poorly drained soils. Violets prefer shady conditions where they have the competitive edge over turf.

Telling the Two Apart: Growth habit and leaf shape are the best ways to distinguish between the two. Ground ivy has rounded leaves with scalloped margins and small purple flowers. Wild violets tend to grow in clumps and have heart shaped leaves. Wild violets have rhizomes, while ground ivy has runners that root at the nodes.



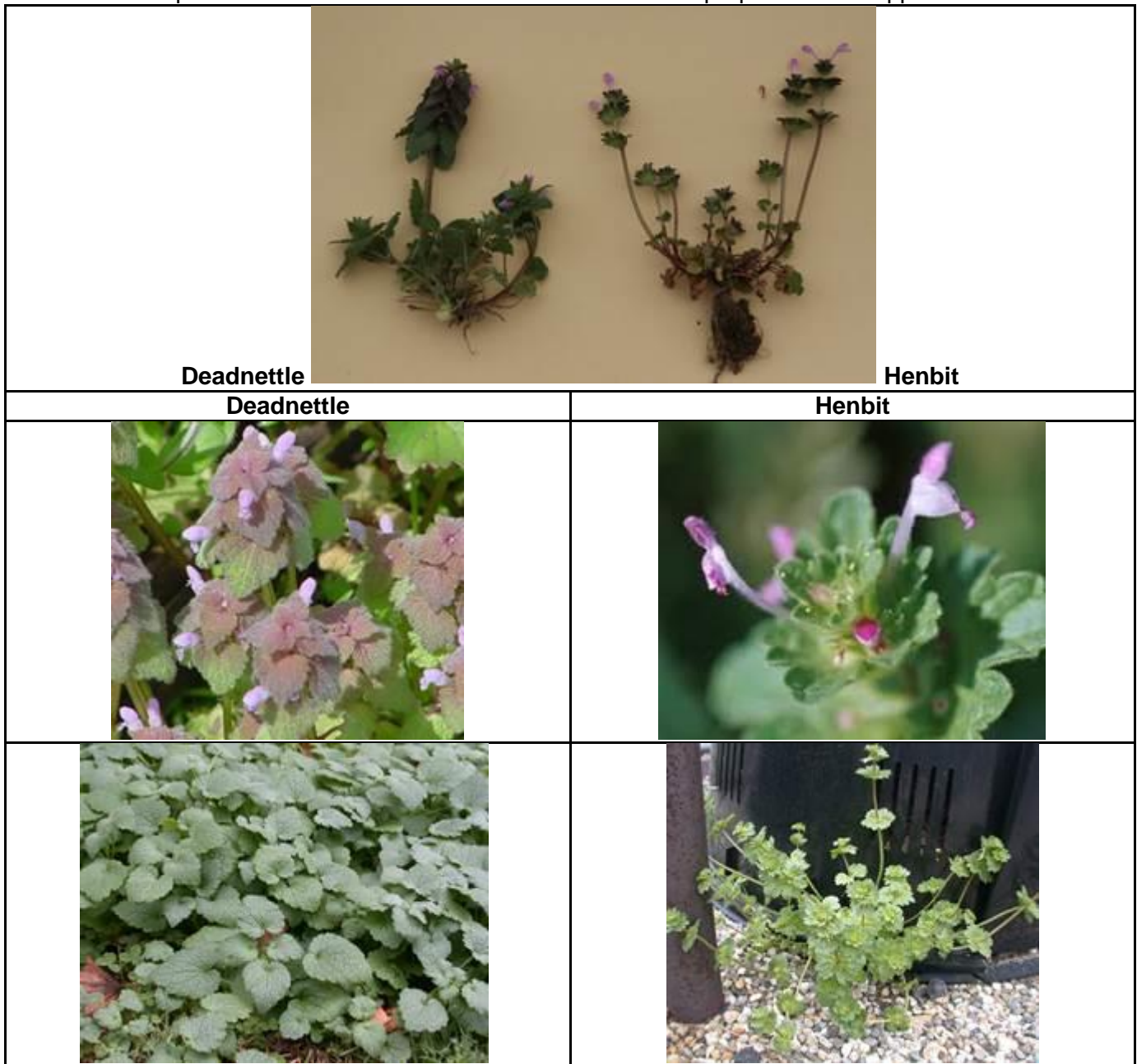
Control: When possible, increase available light through selective pruning of nearby trees and shrubs to favor grass over both of these weeds. Increase mowing height and overseed areas of thin turf to suppress weeds. Improve drainage will make conditions less favorable for ground ivy.

Both of these weeds are resistant to many broadleaf herbicides so it is important to read the label to ensure the product you select will control these weed. They are best treated in the spring, and often need repeated applications for full control.

**Henbit (*Lamium amplexicaule*) and Deadnettle (*Lamium purpureum*)**

Henbit and deadnettle are winter annuals that look alike. Both have square shaped stems and flower in the spring. These weeds prefer high fertility soils.

Telling the Two Apart: Deadnettle has short petioles at the top and long petioles at the bottom. Henbit does not have petioles. Deadnettle also tends to have a reddish purple color it's upper leaves.



**Control:** Manage fertility to favor turf by fertilizing based on soil testing and adjusting how much nitrogen is applied. Measure turf area and calibrate spreaders to insure appropriate rates of fertilizer are applied. Increase mowing height and overseed thin areas to limit the ability of these weeds to establish in the lawn.

There are also a number of post-emergent chemical controls available to treat these two weeds. If herbicides are used fall applications, when the plants are young, are recommended.

**Wild Onion (*Allium ascalonicum*) and Wild Garlic (*Allium ursinum*)**

These close cousins are common turf weeds. They have very similar appearance and controls are the same for both. Wild garlic is more persistent because it produces bulblets are often left in the soil when the plant is hand pulled. Both do well in thin lawns and in poorly drained soil.

**Telling the Two Apart:** Wild onion has a flatter leaf blade, while garlic has hollow leaves that are more rounded and pointed at the top..















**Control:** Improve drainage, aerate and top dress with compost, mow high and overseed to thicken the lawn. Manage fertility to favor turf by fertilizing based on soil testing and adjusting how much nitrogen is applied. Measure turf area and calibrate spreaders to insure appropriate rates of fertilizer are applied. Increase mowing height and overseed thin areas to limit the ability of these weeds to establish in the lawn.

Hand pulling clumps isn't very effective. Leaves snap off easily and regrow. Hand digging can be effective as long as all parts of the plant are removed. Chemical controls are often ineffective. Mowing just prior to herbicide application will improve effectiveness, but still may not provide adequate control.

**Clover (*Trifolium repens*), Wood Sorrel (*Oxalis sp*) and Black Medic (*Medicago lupulina*)**

There are a number of clovers that can be found in lawns. White clover is the most common and most persistent. Clovers are easily identified by their trefoil leaves and clustered flowers. Being legumes, clovers will add nitrogen to the soil. They are often an important source of nectar for pollinators. There is a strong argument for clover being taken out of the lawn weed category.

Telling Them Apart: Wood sorrel can be mistaken for clover. It has leaves with three folded leaflets. It has short stems and sometimes stolons. Yellow wood sorrel is the most common wood sorrel found in lawns. Black medic can also be mistaken for clover. It has leaves with three creased leaflets. The center leaflet is longer than the other leaflet. Flowers are the easiest way to tell these apart. Clover flowers are white and in globe shaped clusters while wood sorrel flowers appear singly are yellow. Black medic flowers are yellow and in globe shaped clusters.

White Clover	Wood Sorrel	Black Medic
		
		
		
		



**Control:** Clover and wood sorrel are indicative of low fertility soils. Amending soils to an appropriate pH and providing adequate fertilization will aid in making grass more competitive than clover and wood sorrel. Mowing high can help with lower growing clovers and wood sorrel. Wood sorrels and annual clovers are best treated chemically in the spring. White clover, however, is best treated in the fall. Both can be a challenge to control chemically. Clovers are susceptible to many herbicides but if the stand is well established, multiple applications may be necessary. Wood sorrel is resistant to many herbicides and often requires multiple applications to control. Medic is best treated in the spring or fall, and is susceptible to most broadleaf weeds.

### **Dandelions (*Taraxacum sp*) and Thistles (*Cirsium sp*)**

Dandelions and thistles are plants that develop deep tap roots. Both have rosette growing patterns and often have milky sap. Thistles tend to be larger and have waxier leaves, which makes them harder to control chemically. Thistles also have sharp spines, which makes hard pulling a less attractive control option. Dandelions are hard to control because of their prolific seed production and the ease at which their seeds disperse in the wind. Dandelions are an important source of nectars for pollinators because of their long blooming season.

**Dandelions**



**Bull Thistle**



**Control:** Hand pulling can be a challenge with both these weeds. Getting the root is important in controlling them. They are best pulled when the plants are small and after a rain when the soil is loose. Dandelion, bull thistle and Canadian thistle are most effectively treated in the fall. Musk thistle and plumeless thistle are easier to kill and are most effectively treated in the spring. Bull and Canadian thistles are more resistant to chemical control.

## Other Look A-Likes

There are a number of weeds that are often confused with dandelion and/or thistle. Dandelions do most of their growing in cool weather. The look a-likes grow in warmer weather. Sow thistle is winter annual whose leaves and flowers look like the dandelion's. Flowers appear on upright stems but have multiple flowers per stem. Prickly lettuce is also confused with these weeds. It develops from a rosette to a tall stalk with yellow flowers. Red sorrel is sometimes mistaken for dandelion when it's young, but it forms flower spikes that look easily more like flower spikes seen in grasses. This makes it easy to distinguish the mature red sorrel from dandelion. In a lawn environment, regular mowing reduces the opportunity for flowering and seed production of all three of these look alike.

**Sow Thistle**  
(*Sanctus asper*)



**Prickly Lettuce**  
(*Lactuca serriola*)



**Red Sorrel**  
(*Rumex acetosella*)



## Moss

Many species of this simple plant can be found in lawns. Moss is a low growing ground cover which is often indicative of problems in the landscape. Moss makes an excellent ground cover in heavily shaded areas but has poor traffic resistance. Low pH, wet soils, compacted soils, shade and low fertility are conditions in which many moss species thrive.

Control: Moss can be physically scraped from the lawn using a shade. Increasing pH, improving aeration and drainage and providing turf with adequate fertility can deter moss from returning. Often when these adjustments are made and moss still returns, shade is the issue. In this case selective running may help.

## Crabgrass (*Digitaria sp*) and Goosegrass (*Eleusine indica*)

Crabgrass is annual grass that usually makes it's first appearance in spring as soil temperatures in the root zone reach the mid 50s. It prefers open areas, and can often be suppressed by tall, thick stands of turf. Stolons extend in an irregular fashion and will root at the nodes. The two main types of crabgrass are Large/Hairy (*Digitaria sanguinalis*) and Smooth (*D. ischaemum*). Like goosegrass, crabgrass does well in close cut turf.

Goose grass sends stems out of a central point in regular pattern – like spokes of a wheel. While it has outreaching stems, goosegrass does not root at the node. Goosegrass will germinate throughout the summer as long as conditions are favorable like crabgrass, but requires warmer soil temperatures so it starts to appear a few weeks after crabgrass in the spring.

Telling the Two Apart: The easiest ways to tell these two apart is the way that they spread and the color of their centers. Crabgrass sprawls while goosegrass is more spoke-like as it spreads. Crabgrass tends to get purplish in the center while goosegrass gets white in the center.

**Crabgrass**



**Goosegrass**



Control: Thick turf, mowed high (3.5-4 inches) will shade out most crabgrass and goosegrass before they get started. A number of pre-emergent herbicides are available to suppress both of these. These should be applied before germination and need to be watered in after application. Pre-emergent herbicides are not 100% effective and may need to be reapplied over the season depending on the formulation. Corn gluten meal is NOT an appropriate pre-emergent because, in order to be effective as a pre-emergent, it also releases too much nitrogen for use on cool season turf in the spring. Post-emergent controls are more limited and risk injury to turf.

### **Foxtails (*Setaria sp*)**

Giant, yellow and green foxtails are common summer weeds. They are more often found in disturbed sites than in established lawns. Foxtails can establish in turf when there is close mowing, summer fertilization and/or thin grass.



Telling Them Apart: Seed head size is often the easiest way to distinguish between the three. All of them are managed the same. Unlike crabgrass and goosegrass, foxtails are bunch grass and their upright growth habit easily distinguishes the foxtails from them.

Control: Thick turf, mowed high (3.5-4 inches) will shade out most foxtail before they get started. A number of pre-emergent herbicides are available to suppress both of them as well. These should be applied before germination and need to be watered in after application. Pre-emergent herbicides are not 100% effective and may need to be reapplied over the season depending on the formulation. Post-emergent controls are more limited and risk injury to turf.

### **Bermuda Grass (*Cynodon dactylon*) and Nimblewill (*Muhlenbergia shreberi*)**

Bermuda grass, also commonly called wire grass, is an aggressive perennial grass which can take over a lawn very quickly. It has both stolons and rhizomes (above and underground lateral stems) which allow it to spread rapidly.

Nimblewill is a shade-tolerant grass that forms dense mats. It has wiry stems and spreads by stolons. Its relatively short narrow leaves, mat-forming habit, and stolons are all features that help to distinguish nimblewill from most other grasses. Though similar to bermudagrass, it is generally smaller and more wiry in appearance than bermudagrass. Not quite as aggressive as Bermuda grass, it's still a weed that can spread quickly and be very difficult to control once established.

Telling the Two Apart: Bermuda grass has stolons and rhizomes, while nimblewill has false stolons. Nimblewill has very fine stems that act like stolons because they tend to lean over and root at the node. Bermuda has true stolons that spread laterally and root at the nodes. Bermuda stolons are also more robust than nimblewill stems. Bermuda has much more robust stems. Another way to tell them apart is by the shape of their seed head. Bermuda has a raceme of 3-5 spikes that form at the top of a main stem, while nimblewill has a panicle. Bermuda grass has a hairy ligule while nimblewill has a membranous ligule – but nimblewill can have a hairy collar which can confuse the issue.

### Bermuda Grass



### Nimblewill



Control: The key to control is early detection. Hand pulling young stands is critical to keep small encroachments from becoming major problems. Chemical control of established stands is expensive and requires repeated treatments – and still can take years to accomplish.

### Dallisgrass (*Paspalum dilatatum*)

Dallisgrass is a perennial weed grass that can be difficult to control in turf. It is a bunch grass with a very prominent midrib that often makes leaves appear creased. This makes dallisgrass easy to identify. Its seed heads are distinctive and have hairy spikelets arranged in rows.



Control: The key to control is early detection. Hand pulling young stands is critical to keep small encroachments from becoming major problems. Chemical control of established stands is expensive and requires repeated treatments – and still can take years to accomplish.

## Nutsedge (*Cyperus* sp)

Nutsedge is a grass-like weed with erect stems. It's easily distinguished from grasses because of its triangular stem. In lawn situations, sedges often appear lighter in color to surrounding turf. Yellow nutsedge (*Cyperus esculentus*) and purple nutsedge (*Cyperus rotundus*) are the two more common sedges seen in turf in Northern Virginia. Nutsedge can be indicative of wet soils or over watered lawns. Nutsedge can also out-compete cool season turf in hot, droughty conditions.

Telling the Two Apart: Yellow nutsedge stems are as long or shorter than the basal leaves, while purple nutsedge stems are longer than the basal leaves. Yellow nutsedge has yellowish flowers, while purple nutsedge has purplish flowers. Purple nutsedge leaves taper to a point much more gradually than yellow nutsedge.

**Yellow Nutsedge**



**Purple Nutsedge**



Control: Both yellow and purple nutsedge produce small tubers referred to as nutlets. These nutlets can make nutsedge more difficult to control. Hand pulling works well when the plant has less than 5 leaves. There are commercial sedgicides that can be effective, but they too need to be applied before the plant has 5 leaves or it may resprout from its nutlets. Purple nutsedge is the harder of the two to kill chemically and not all sedgicides work on purple so identification is important.

### **Lespedeza (*Lespedeza sp*) and Spotted Spurge (*Chamaesyce maculata*)**

Lespedeza is an annual that grows close to the ground with trifoliate leaves. Its wide spreading branches come from a central tap root and can choke out turf. There is also a perennial lespedeza but is usually more of a pasture weed than an issue in lawns. Spotted spurge has a similar growth pattern to lespedeza. It has milky sap. It also has very small flowers which often go unnoticed. Both usually grow low enough to avoid mower blades. Both form mats that can choke turf.

**Lespedeza**



**Spurge**



Control: Both of these warm season weeds are hard to control chemically. Lespedeza is best controlled chemically in the spring. Spurge is best treated early in the summer when it young. Hand pulling is an option but it is not always easy to get the root especially in dry, sun baked soils.

### **Plantains (*Plantago sp*)**

Broadleaf and buckthorn plantains are common lawn weeds. Both grow in rosettes. Broadleaf plantains have much wider leaves than buckthorn plantains, making it easy to distinguish between the two. Their flowers differ as well. The buckthorn has fuzzy white flowers at the top of a spike, while the broadleaf has flowers all along the upper half of an upright stem.

**Broadleaf (*P. major*)**



**Buckthorn (*P. lanceolata*)**



Control: Maintaining dense turf and mowing high will help control these weeds. Hand pulling young plants can be effective in removing them. Plantains are often an indicator of low soil fertility. Maintaining a regular fertility plan can help discourage plantains and allow grass to out compete them. Plantains can also be controlled with chemicals. They are best treated in the spring and fall.

# Remember to Read and Follow All Label Instructions with Any Herbicide You Use

## Management Strategies That Suppress Weeds and Promote Healthy, Competitive Turf

- Soil Test every 3 years
- Adjust the pH as needed
- Use appropriate rates of fertilizer for your turf
- Apply fertilizer at the appropriate time of year for your turf
- Measure your turf area and calibrate spreaders
- Overseed areas of thin turf
- Mow high – as appropriate for your turf
- Improve surface drainage
- Aerate to reduce compaction as needed
- Topdress with compost annually
- Avoid shallow, frequent applications of water
- Use turfgrass species that are appropriate for site conditions
- Use alternative ground covers in areas under heavy shade

## Herbicide Strategies for Weed Control

- Identify weeds before selecting an herbicide
- Apply herbicides as a last resort
- Spot treat with herbicides where possible
- Select herbicides that are labelled for control of your target weed
- Read herbicide labels before use
- Store, Apply and Dispose of pesticides according the label instructions
- Apply herbicides at times when target weeds are most vulnerable
- Avoid applying herbicides over/around waterways
- Avoid applying herbicides in high wind and/or high heat situations
- Avoid applying herbicides prior to storm events

## Herbicide Formulations and Regulations Change

- Herbicides available to homeowners change as more effective chemistries are developed.
- Contact your local Virginia Cooperative Extension office for information on the latest control recommendations for target weeds.