Best Lawns News

Late Summer 2017 Edition

Virginia Cooperative Extension – Prince William Unit

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Stiltgrass

Japanese Stiltgrass (*Microstegium vimineum*) is an invasive weed in our area. It is a warm season annual capable of producing a large amount of seed every fall. It is tolerant of shade and prefers moist areas. Left alone it will generally grow upright to about 4 feet high. When mowed, it will sprawl across the lawn.



Stem



Flower



Growing



Seedlings



Stiltgrass Blanketing Forest Understory (Photo by Chris Brown, University of Georgia)

Stiltgrass has alternate, lance-shaped leaves that can be up to 3 inches long. The leaves have a silvery white stripe down the center of the upper surface. It has delicate stems. As it sprawls, it sends shoots to the soil which form root. This makes the stem appear as if it held up by stilts.



Stiltgrass Stilts (Photo by Toad Shade Farm, www.toadshade.com/blogimages/JapaneseStiltgrassaerialroots)

Because proper weed control requires the proper weed identification, if you are unsure a weed is stilt grass, bring in a sample to our office and we will identify it for you.

Stiltgrass flowers in August and produces seed in late-August and September. Stiltgrass can produce up to 50,000 seeds per square foot! This makes it easy for stiltgrass to spread and difficult to control. Often it will take at least 5-7 years to full exhaust the seed bank in the soil and bring stiltgrass under control.

Cultural/Mechanical Control:

- **Hand Pulling** beginning in mid- summer. Plants are easier to pull by grabbing the base. Repeated efforts may be needed as seeds germinate throughout the growing season.
- **Mowing** after allowing it to grow about 3+ feet (after the flower start to form but ideally before seed heads form). Plants mowed too early will still flower.

Chemical Controls:

- **Crabgrass Pre-Emergents** that contain pendimethalin, imazapic or prodiamine control Japanese stiltgrass. Timing will be slightly earlier than for crabgrass. They can be applied beginning in early March – weather permitting. Reapplication may be necessary.
- **Fluazifop** applied as a post emergent. This is most effective when applied to young plants. Repeated applications may be necessary for larger plants.
- **Glyphosate** maybe applied, but will harm turf and other desirable plants as well.

Some of these products cannot be used near waterways, including small streams and wetlands. It is important that you read and carefully follow the directions of any pesticide you choose to use. Glyphosate, for example, needs to be in a formulation specific for aquatic use. Gliphosate products formulated for aquatic use include *Shoreline Defense*, *Rodeo* and *Pondmaster*.

Any stilt grass control program may require multiple attempts and/or strategies. For example, mowing, then allowing regrowth prior to fluazifop or glyphosate application can increase the effectiveness of control.

Please Read and Follow All Label Directions for Any Pesticide You Choose to Use.

Look A-Likes

There are a few look a-like plants that can be confused with stiltgrass. These plants grow in similar places and can be intermixed with stilitgrass. Two common look a-likes are whitegrass (*Leersia virginica*) and smartweeds (*Polygonum* sp.).

Whitegrass (aka Virginia cutgrass) is a 1-3' tall perennial grass that can grow in wooded areas. Whitegrass flowers are pressed together to form a row of florets on the upper half of each branch of their flower spike, while stiltgrass has florets along the entire branch. White grass has hairy nodes, while stiltgrass has smooth nodes. Whitegrass will also stay green in the fall. Whitegrass also lacks the stripe on the upper leave surface than stiltgrass has.





Whitegrass (left - www.illinoiswildflowers.info/grasses/plants/white_grass.htm, right - www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/wvpmcpg11000.pdf)

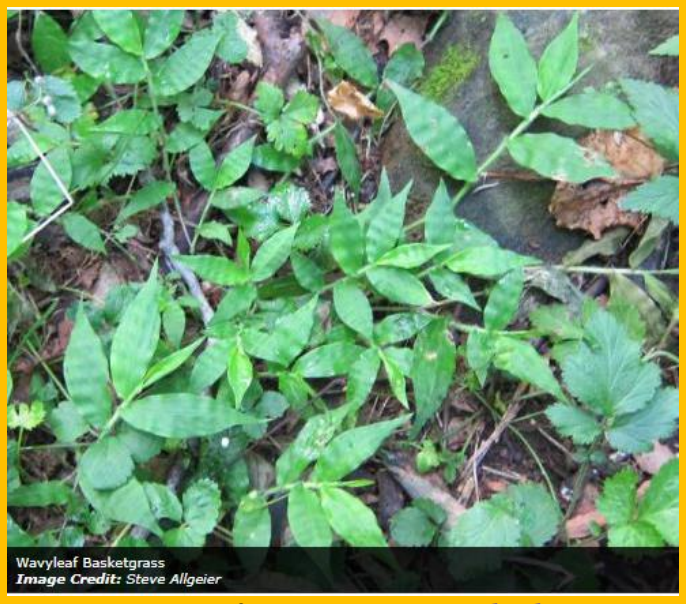
The *Polygonums* are annuals. They form masses of grass-like plants and have small bead-like flowers that are usually white or pink. They do not get as tall as stiltgrass. Some are native and some are exotic species.





Polygonum flower clusters (left -oak.ppws.vt.edu/~flessner/weedguide/polpy.htm, right - www.illinoiswildflowers.info/weeds/plants/lady_thumb.htm)

Other look a-likes include basket grass (*Oplismenus hirtellus*) and deer tongue/panic grass (*Dichanthelium* sp.). Basket grass usually has wavy leaves and lack a silvery mid-rib. Deer tongue can be distinguished by it's leaves which clasp around the stem. While stiltgrass is easy to pull, deer tongue is not. Deer tongue also has knobby seeds.





Left - extension.umd.edu/news/wavyleaf-basketgrass-invades , right - oak.ppws.vt.edu/~flessner/weedguide/pancl.htm

Alabama Cooperative Extension has a good reference for telling stiltgrass from it's look a-likes. You can access it at www.aces.edu/pubs/docs/A/ANR-1457/ANR-1457.pdf.

Renovating Areas Infested with Stiltgrass

As part of removing stiltgrass from an area, you have to consider how to cover the ground you've just cleared to protect the soil. This is not always as clear cut as simply reseeding with turf. When controlling existing stiltgrass in the fall, the location of the area effects renovation.

For streambanks, seed with annual ryegrass to keep the bank stable over the winter. In the spring replant the area with plants, preferably natives, that are suitable for riparian areas.

For lawns with full sun, you can reseed as you normally would with the understanding that a pre-emergent without nitrogen will be needed in early spring.

For lawns and other areas in shade, renovation is more of a problem. Shade tolerant options are not as competitive as stiltgrass. Stiltgrass will grow through fine fescues and shade tolerant alternative ground covers.

Fine fescues can be seeded in September. Where sufficient light permits, adding annual ryegrass to get cover up early and protect fescue seeds is recommended. In lawn situations, it's important to note, fine fescues are not as tolerant to foot traffic as other turf species. Fine fescues in non-lawn areas can be left unmowed much of the year. They typically only grow 6-8 inches high. In mid-late summer stiltgrass growing among unmowed fine fescues will tower over them. Depending on the number of stiltgrass plants, these can be pulled or mowed as described above.

Unfortunately, there is no recommended replacement for stiltgrass that will out compete it. Stiltgrass control takes patience. It is important to be vigilant and work with adjoining neighbors to suppress and control this weed.

Mushrooms in the Lawn

Fungi, in general, have thrived in the wet conditions we have had this summer. We are seeing more mushrooms than usual in lawns this year. Mushrooms are the are the reproductive structures of fungi.

Are they dangerous? Do NOT eat mushrooms you find in the lawn. Otherwise mushrooms in the lawn are largely nothing to worry about. Mushrooms in the lawn can actually be an indicator of a healthy soil. Many fungi in the soil are beneficial to the lawn and we want them to reproduce. Generally, if you see mushrooms in the lawn these are beneficial fungi. Ideally, you want to leave them in the lawn.

If you can't live with the mushrooms in the lawn or you have small children or pets who may get too interested in the mushrooms, you can remove them. Most can be snapped at the soil line and pulled up by hand. If you are hand pulling mushrooms, be sure to wash your hands after doing so. Some mushrooms aren't in the traditional stem and cap form. These may need to be dug out to be removed. If children getting curious and tasting them isn't a worry, you can also use a rake to break up the mushrooms. The pieces will fall to the ground and decompose back into the soil.

The one mushroom of semi-concern to the lawn is known as fairy ring. Fairy ring occurs in several forms, one of which manifests itself as a ring of mushrooms. Fairy rings are produced by colonies of mushroom fungi that live in soil and thatch. These fungi grow outward radially, increasing in size year after year. The fungi do not attack grass, but sometimes they repel water, which can cause turf loss if the turf in the affected area can't get enough water. Fairy ring often begins with a piece of wood left buried in the lawn or the decaying roots of a tree that has been removed.

Mushrooms that occur in mulch are also typically not something to worry about. These the reproductive structures of fungi that feed of wood. These too are beneficial as they are breaking down the mulch into plant available nutrients.

Remember to help sustain your soil fungi populations in the lawn by regularly applying compost to help drive nutrient cycling in the soil.



ext.vt.edu

Fall Renovation of Cool Season Turf

Fall is the time to renovate cool season turf. September through early October is the ideal window for planting but, with a little cooperation from Mother Nature, planting into November can still result in successful establishment of new grass. Sooner in the season is usually preferred to later in the season because cool season turf puts much of it's growth energy into the roots. Establishing a good root system is critical for new grass survival over the following summer.

Renovation can vary from a patch repair of a damaged section of turf to overseeding to replanting the entire lawn. Deciding which option is best is sometimes obvious and sometime not. The traditional rule of thumb is to replant if weeds make up over 50% of the lawn. At that point, it's often less expensive in the long run to start over with a new lawn than to be continually battling well established weed populations. Since replanting is more costly than overseeding in the short run, the closer a lawn is to the 50-50 grass vs weeds mark, the more of a judgment call it is for the homeowner to decide which option will best suit their situation.

Seed Quality is Key

Choosing good seed helps determine how successful your fall seeding is likely to be. Seed freshness is crucial. The germination rate of most turf species drops off significantly over time. To determine seed freshness, inspect the label. The area on the label that lists the species and cultivars of the seed should also have a date that the seed was germination tested. Look for seed that was tested less than a year before you plant. The viability of turf seed begins to drop significantly after a year.

Virginia Tech publishes a list of recommended seed varieties annually based on variety trails conducted at Blacksburg, Beltsville and Hampton Roads. This document can be found at pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/CSES/CSES-17/CSES-17NP.pdf. It is close to impossible for a homeowner to find a bag of seed that contains only varieties from the list. Where possible, choose a seed mix where one or more of these varieties make up a significant percentage of the seed in the mix.

Consider the types of grass in the bag. Two things are important: the species of turf and the varieties themselves. Nature doesn't like monoculture and having a mix of cool season species and varieties can help give the lawn better overall resistance to the spreading of disease. Consider the lawn conditions to determine what might mix of species is best suited to available sunlight. A mix of tall fescue and either fine fescues or Kentucky bluegrass is the standard lawn mix in Northern Virginia.

All grasses do well in full sun. Kentucky bluegrass has some tolerance to light shade. Fine fescues are our most shade tolerant turfgrass options. The fine fescues are red, hard, sheep and chewings fescues. Tall fescue's shade tolerance is between bluegrass and fine fescue. Shade mixes with a high percentage of bluegrass, is not likely to be successful in a shady lawn. A mix of tall and fine fescues is commonly used for shady lawns. A mix of tall fescue and Kentucky bluegrass is commonly used for sunny lawns.

Some grass seed mixes found in local stores may also have ryegrass in the mix. Ryegrass is not suited as the primary grass for home lawns in Northern Virginia because of it's limited heat tolerance and disease potential. There are, however, situations when using ryegrass is appropriate. One of those is when seeding bare ground. Ryegrass will germinate in a few days, fescues germinate in a week to 10 days and bluegrass can take over 3 weeks to germinate. Having a small percentage of rye in a seed mix will give quick cover to fall seeded lawn that will protect the other species from being washed away by storm events before they germinate. This is especially useful when reseeding slopes.

When buying multiple bags of seed, read the label of each bag! Many times a store will get a shipment of seed bags from a manufacturer with the same brand but with different seed mixes in the bag. For example, one bag of Acro Sun and Shade Mix may be 90% tall fescue and 10% Kentucky bluegrass, while another bag of Acro Sun and Shade Mix on the same shelf will have 62% tall fescue, 30% perennial rye, and 8% red fescue.

It's also important to know how much seed you are buying. Most seed mixes have a small percentage of inert material that make up a negligible amount in the bag. Others can have significant amounts. "Patch" mixes usually have a high percentage of inert material to act as mulch. That means your 4 lb. bag of seed, is going to have significantly less than 4 lbs. of seed. For mixes with coated seeds, about half the weight of the bag is usually the seed coating. Also remember that coated seeds sometimes have fertilizer included in the coating. When using seed with fertilizer coating, applying fertilizer prior to planting is not needed.

Overseeding the Lawn

Overseeding can prevent a lawn from thinning as it ages and introduce the latest proven varieties into the lawn. Weed control can be a part of overseeding. If using herbicides on weeds, it's important to take into account the wait time between when a pesticide is applied and when it safe to seed. This information can be found on the product label.

Because grass seedlings can be shaded out, it's important to gradually lower the height of the lawn to about 2.5 inches. This will open the canopy and allow newly sprouted grass access to light when they need it most.

Soil preparation consists of core aeration, followed by an application of fertilizer, ¼-½ inch of organic material (typically compost) and, if called for by a soil test, an application of lime.

Because there is existing turf, the seeding rate is lower than in other situations. Lawns that are all tall fescue or tall fescue mixed with either bluegrass or fine fescue are typically overseeded at rate of 3-4 lb. per 1,000 sf. Seed should split into two batches. Each batch should be spread in a direction perpendicular to the other to maximize seed distribution. Seed should be raked in to increase seed to soil contact.

Patch Repairs

Patch repairs are used to repair sections of turf that have died or overtaken with weeds. As with overseeding, weed control is an issue. Repairing a patch that was inundated by summer weeds allows for the careful use of a non-selective glyphosate herbicide to remove all vegetation in the area to be patched. Avoid products with "Extended Control" as it lingers in the soil and can prevent grass seed from germinating. Care should be taken to ensure the herbicide does not drift outside the patch area as these herbicides will damage the existing turf and ornamentals. Once all the dead plant material has been removed, soil preparation can begin.

The soil should be amended as described in the overseeding section above. If the lawn is not aerated however, a bow rake should be used to rough up the surface. Seed and sod both need to have good contact with the under laying soil to establish successfully.

Patched repairs use a seeding rate of 6-8 lb per 1,000 sf. Repaired areas should be lightly mulched at a rate of 1-2 bales per 1,000 sf, leaving about half of the ground should be visible through the straw.

Replanting the Lawn

When replanting the entire lawn, all existing grass and weeds should be killed. This is normally done with a non-selective glyphosate herbicide. As mentioned above, this type of herbicide can harm ornamentals so it should be used with care.

Soil preparation involves tilling to a depth of 6-8 inches. Fertilizer, lime (if needed) and compost should be tilled into the soil any this time. Tilling provides an excellent opportunity to get more organic matter into the soil. Research shows adding 1-2 inches of compost prior to planting will allow the turf to establish much more quickly. Once the amendments have been tilled in, the soil should be leveled and smoothed with a rake.

Tall fescue or tall fescue mixes are seeded at rate of 6-8 lb. per 1,000 sf. Seed should be applied as described in the overseeding section above. The area should be lightly mulched with straw at a rate of 1-2 bales per 1,000 sf.

Post Planting Care

It is important to keep the soil moist. This may involve multiple light applications of water per day, depending on the weather. As the roots develop, gradually shift to watering more deeply and infrequently. Ideally, the turf should get a total of 1 inch of water applied once per week.

Avoid walking on new sod and overseeded lawns as much as possible for at least 3 weeks. With a complete replanting of the lawn with seed, avoid foot traffic as much as possible until the new grass has been mowed at least 3 times.

With renovation fertilizer is applied pre-planting, fertilizer should not be applied again for at least 30 days after the new grass has sprouted. Young grass can be sensitive to fertilizer burn and does not need as much fertilizer as established turf so it is not always necessary to apply additional fertilizer after the initial pre-planting application – especially if cloudy/rainy conditions dominate the weather and turf growth is slowed by reduced sunlight.

Newly seeded turf can be harmed by pesticides that normally wouldn't harm mature turf. If pesticides are used after seeding, the product label should be consulted. Many pesticides have two wait periods related to seeding. One period is between when a product is used and when that area can be seeded. The other period is between when grass is seeded and when the product can be safely applied on the new grass. These wait periods are rarely the same. If the label is unclear, check with the product manufacturer.

Maintaining proper mowing heights will help deter weeds. Proper fertilization will help new grass stay healthy and competitive against weeds. Regular soil testing helps ensure the appropriate type of fertilizer is used and an appropriate soil pH is maintained. Fertilizing in the fall and avoiding fertilizing in the spring can reduce the likelihood and severity of brown patch disease over the summer.

The Prince William VCE office offers soil test kits and nutrient management plans for turf through the BEST Lawns program. For more information on BEST Lawns, call or email the office at 703-792-4037 or BESTLawns@pwcgov.org.

VCE Schedule of Classes

Master Gardener Saturdays in The Garden

The Teaching Garden at St. Benedict Monastery
9:00 am to Noon
September 9th, October 21st

September 9 - Rain Check! Rain Barrels, Downspout Disconnections, and Irrigation Tips. Water is precious! Join Master Gardener Volunteer, Steve Micklosovich, for tips on setting up rain barrels and utilizing water from your roof for your gardens. VCE staff will also offer research based irrigation tips. Vegetable of the Month - Cooks' Garden Volunteers feature one of the seasonal edibles in their garden and discuss cover crops in the garden. Also happening is **MGPW FALL PLANT SALE!**

October 21 - The Right Tree: Planting, Care and Maintenance - Take this class before you go to the garden center. Topics covered: Selecting a healthy tree at the nursery, selection of the right tree for the right place, proper planting, care and maintenance to keep your investments alive and thriving. Vegetable of the Month - Cooks' Garden Volunteers feature one of the seasonal edibles in their garden.

Master Gardener Clinics at Manassas City and Dale City Farmers' Markets

Ask a Master Gardener your Gardening Questions
Clinics run through October

Manassas City Farmers' Market
Saturdays 10 am to 1 pm

Dale City Farmers' Market
Sundays 10 am to 1 pm

Ten Steps to a Greener Lawn
Call today to schedule a Ten Steps to a Greener Lawn class for your homeowners association or community group, this class teaches how to have a beautiful lawn with less cost to you and the environment! Contact us at bestlawns@pwcgov.org or 703-792-4037. You can also receive information on our BEST Lawns (Building Environmentally Sustainable Turf) program, a research-based program for lawn education from Virginia Cooperative Extension - Prince William.

PLEASE NOTE: All Classes are of these programs are free. Registration is requested by calling 703-792-7747 or emailing master_gardener@pwcgov.org

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