

BEST LAWN NEWS

Winter 2019 Edition

Virginia Cooperative Extension – Prince William Unit

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All content was written by Thomas Bolles, except where noted, and is based on university research at Virginia Tech, Virginia State and other partner universities in the Land Grant system.

Staff contact information

Paige Thacker, Extension Agent, Horticulture
Phone: 703-792-4671 Email: pthacker@pwcgov.org

Nancy Berlin, Natural Resource Specialist/Master Gardener Coordinator
Phone: 703-792-7913 Email: nberlin@pwcgov.org

Thomas Bolles, Environmental Education Specialist/BEST Lawns Coordinator
Phone: 703-792-4037 Email: tbolles@pwcgov.org



VIRGINIA COOPERATIVE EXTENSION
8033 Ashton Avenue, Suite 105
Manassas, VA 20109 – 8202
Phone: 703-792-6285
Fax: 703-792-4630

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Recovering from 2018

The early spring of 2018 seemed to bode well for turf in our area. Cool temperatures and regular rainfall saw most lawns looking green and lush. But the rain remained throughout much of the year. Many of the storm events of 2018 dropped over an inch of rain onto already saturated soils. Continually wet lawns were the perfect habitat for many turf diseases. Few sunny days meant plants weakened by inadequate solar energy were more susceptible to attack. Lawns that would have normally brushed off disease in an average year struggled. Pythium blight, rarely seen in the home lawns of Northern Virginia, broke out in lawns across the county. Many yards were damaged. Many were wiped out by the disease. Herbicide treatments were diluted by excess rain and summer weeds flourished. Crabgrass had an exceptionally good year. A number of lawns in the region became carpets of crabgrass by the end of the summer. After a few weeks of respite from the rain in August, storms began again just in time for the fall planting season. Many homeowners found that seed would germinate, but seedlings would quickly die from disease and/or heavy rainfall.

As 2019 gets underway, many homeowners are facing thin turf, bare areas and/or erosion issues. Traditional spring planting has always been problematic for homeowners in our area. Spring seeded fescue and bluegrass needs irrigation and a bit of luck to survive the hot weather and disease pressure of a typical Northern Virginia summer. Even then, spring seeded turf often doesn't survive. Spring seeded turf also isn't helpful in stopping erosion from early spring rains. For many, dormant seeding may be a better choice.

Remember with any seeding program, moisture control through establishment is key. This often means dormant and spring seeded turf will need irrigation to get it through it's first summer.

Dormant Seeding

One option is dormant seeding, which is sometimes called frost seeding or snow seeding. This technique involves broadcasting seed onto frozen ground over the winter and relying on the freeze-thaw cycles of the soil to work the seed into the ground. This allows the grass to germinate as soon as conditions are right – which is typically long before we can get on the lawn in the spring. This produces plants that are more mature and more hardy going into summer. Applying a light layer of compost (no more than ¼ inch) over the seed can help warm the soil earlier. On slopes, you may see seed being washed down slope without compost to help hold it in place initially. Remember that in bare areas, grass seed on the soil surface can attract birds so if you don't cover it with compost, a light layer of straw will help protect the seed from avian raiders. When using this seeding technique, you do NOT apply fertilizer at seeding.

Spring Seeding

If you do decide to spring seed in the normal spring window (late March-April) this year and crabgrass is a concern, you don't want to apply pre-emergent during the normal early spring application period between when forsythia is in full bloom and when it reaches 50% petal loss. That could interfere with turf seed germinating. Instead, you may want to hold off on applying pre-emergent until late spring. Waiting until mid-May-June (after the new grass has been mowed once or twice) will allow you get your turf seed up and going while still providing effective control of summer weed grasses. The trick is to apply pre- and post-emergent together.

With tall fescue, apply a nitrogen-free pre-emergent at ¾ the label rate and mesotrione (e.g. *Tenacity*) at ½ the label rate. Then apply just the mesotrione at ½ the label rate 3 weeks later, if needed. This will give pre-emergent protection going forward, but also will control any summer grass weeds that have already germinated. The reduced rates of mesotrione should still be effective on these grasses because they are still in a small, immature

state Mesotrione will cause weeds to bleach out before they die and can cause the tips of turf to whiten as well. In the case of the turf, those tips will be mown off after the next regular mowing and the turf should be fine. Mesotrione should NOT be used on newly seeded fine fescue. Remember pre-emergent is best applied and then watered to help move granules to the soil. Post-emergent granular products work best when the grass is watered and the product is applied to the wet grass to help get the herbicide to stick to the leaves of targeted plants.

Seed Options

For most lawns, a mix of tall fescues or a blend of tall fescue and bluegrass or fine fescue is the best option. Bluegrass does well in sunny areas but fine fescue does well in shady areas. Fine fescue does well in full sun, but will often go into dormancy over the summer much more readily than tall fescue or Kentucky bluegrass. Overseed at rates of 3-4 lbs. of seed per 1,000 sf. Remember to read the seed label carefully to make sure you are getting fresh seed (i.e. the seed germination test date is less than a year old). Also consider what else is in the bag. Is there a lot of weed seed? Is there a lot of filler? If the seed is coated, how much of the weight is actually seed and how much is the coating?

Another seed option is clover. Clover does well when spring seeded (with proper summer irrigation) or dormant seeding. Clover works well in a lawn as it increases the diversity of the beneficial soil microbial organisms, adds nitrogen to the soil, can act as buffer to disease and can help the lawn look green even when the grass has gone dormant. If overseeding grass and clover, seed separately to get better mixes of the two species.

White clover is typically the clover of choice for lawns as it can tolerate shade, is relatively long-lived, handles mowing well and stays low. Before the boom in herbicides following the Second World War, white clover was regularly included in grass seed mixes. White clover is seeded at a rate of 2-4 ounces per 1,000 sf plus 6-8 lbs. of tall fescue to establish a lawn, and half that rate to overseed.

Micro clover is a type of white clover that has been bred to blend into grass. It lacks the shade tolerance of traditional white clover and while it has some drought tolerance, it is less tolerant than traditional white clover. Micro clover is often sold in “eco-turf” mixes that promise maintenance free lawns, but these mixes are not silver bullet answers to lawn care. Micro clover is seeded at a rate of 3-5 ounces per 1,000 sf with 6-8 lbs. of fescue to establish a lawn, and half that amount to overseed. Micro clover is also significantly more expensive than traditional white clover (c. \$35/ lb. vs. c. \$5.50 lb.).



Adding clover to the lawn does create an issue with weed control as all of the broadleaf herbicides available to homeowners will harm or kill clover. Staying ahead of weed issues and hand pulling or spot treating as needed can help mitigate this. Healthy, well established clover of both types tends to be harmed by 2,4D but can often bounce back from the injury in many cases. Micro clover has shown some resistance to quinclorac (e.g. *Drive XLR8*) in university trials.

Where heavy shade is an issue, turf is not the recommended ground cover of choice. The table below lists some evergreen ground cover options that tolerate partial sun to full shade. Spring is an excellent time to plant many of these ground covers. Most are only available as plugs or starts, but an increasing number are available as seed.

While this can make the upfront cost higher than turf, you will likely save money in the long run as these ground covers usually are not fertilized.

Evergreen Ground Covers					
Common name (Botanical Name)	Light req.	Size	Native?	Upkeep	Growth rate
Oregon Grape (<i>Mahonia repens</i>)	part to full shade	24"	No	Low	Slow
Black Mondo Grass (<i>Ophiopogon planiscapus</i>)	part to full shade	8-12"	No	Low	Medium
Candytuft (<i>Iberis sempervirens</i>)	full to partial sun	6-12"	No	Medium	Slow
Cotoneaster (<i>Cotoneaster spp.</i>)	full sun to part shade	12"	No	Low	Fast
Creeping Mazus (<i>Mazus reptans</i>)	full sun to part shade	12-24"	No	Low	Fast
Creeping Speedwell (<i>Veronica repens</i>)	full to partial sun	1-4"	No	Low	Medium
Creeping St. Johnswort (<i>Hypericum calycinum</i>)	full to partial sun	8-12"	No	Low	Medium
Creeping Thyme (<i>Thymus spp.</i>)	full sun to part shade	3-8"	No	Low	Medium
Golden ragwort (<i>Senecio aureus</i>)	full shade	12-18"	Yes	Low	Medium
Green and Gold (<i>Chrysogonum virginianum</i>)	full shade	3-6"	Yes	Low	Medium
Lenten Rose (<i>Helleborus spp.</i>)	part to full shade	12-14"	Yes	Medium	Slow
Lily turf (<i>Liriope muscari</i>)	full sun to full shade	12"	No	Low	Fast
Lungwort (<i>Pulmonaria spp.</i>)	part to full shade	8-12"	No	Medium	Slow
Moss (many species)	full shade	6-24"	Yes	Low	Fast
Pachysandra (<i>Pachysandra procumbens</i>)	part to full shade	9-12"	Yes	Low	Medium
Partridge berry (<i>Mitchella repens</i>)	full shade	3-6"	Yes	Low	Slow
Roman Chamomile (<i>Chamaemelum nobile</i>)	part to full shade	6-12"	No	Low	Medium
Sedge (<i>Carex spp.</i>)	full sun to shade	3-24"	Yes	Low	Medium
Sedum/Stoncrop (<i>Sedum spp.</i>)	full to partial sun	2-24"	Yes	Low	Medium
Spurge (<i>Euphorbia spp.</i>)	full to partial sun	6-24"	No	Medium	Medium
Thyme (<i>Thymus spp.</i>)	full to partial sun	3-6"	No	Low	Medium
Wild Ginger (<i>Asarum canadense</i>)	part to full shade	24-36"	Yes	Low	Slow
Wintergreen (<i>Gaultheria procumbens</i>)	part to full shade	2-4"	Yes	Low	Medium

Weed Update

Given the incredibly successful year that crabgrass had in 2018, there remains a large bank of seed in the soil waiting for the conditions to be right to germinate. Most warm season annual weed grasses can start the germination process once soil temperatures get into the upper 50s. While thick, high turf is the best defense against most of these grasses, many lawns haven't fully recovered from the challenges of last year and may need some help fending off weed grasses.

If you aren't spring seeding and choose to use pre-emergent, choose a nitrogen-free product and apply between the time forsythia come into full bloom and when forsythia reaches 50% petal drop (which is also about the time native dogwoods come into bloom). Pre-emergent creates a chemical barrier in the soil, so it's important to water the grass after applying pre-emergent. This will help move the granules off the plants to the soil and begin to dissolve into the soil.

As noted above, if you spring seed you'll need to adjust the timing of pre-emergent application until after the new grass has been mowed a time or two. You'll also want to apply a post emergent to take care of any crabgrass weeds which may have germinated.

In either case, remember that no pre-emergent is 100% effective at stopping all annual grass seed from germinating. Annual grasses can germinate throughout the year so regular scouting is important so you can catch and pull any weeds that do pop up before they become a problem. Excessive rainfall can leach herbicide from the soil making it less effective. Reapplication can sometimes be warranted but it's important to check labels and make sure you do not exceed the allowable maximum annual application rate.

The broadleaf weed populations tend to vary year to year based on the weather. While we don't know which broadleaf weeds will dominate this year, it's important to remember some general principles

- Regular scouting can help you identify and control a weed issue before it become a problem
- Identify weeds before selecting a control option
- Start with the least toxic control methods and escalate as needed
- Younger weeds tend to be easier to kill
- Herbicides work best when weeds are actively growing
- Avoid using herbicides when pollinators are actively foraging in the lawn
- Read and follow all label instructions

When considering post-emergent herbicide options, generally speaking, it is better off spot treating weeds with a liquid product than using a granular product. Many herbicides need to be absorbed through the plant leaves. When using a granular, you need to get the granule to stick to the leaf and then remain there to dissolve so the plant can absorb it. When applying granular products, there needs to be a heavy dew on the lawn to encourage granules to stick to leaves and begin to dissolve. When these products are applied to dry turf, they can lose much of their effectiveness. In the case of a dry lawn, water the grass then apply product for best results. However, weed and feed products applied to wet grass can allow the fertilizer to stick to grass blades which can cause fertilizer burn.

Insect Update

In our part of Virginia, our main turf pest in home lawns are white grubs. Grubs are the larval stage of beetles. In terms of numbers, most of the pest grubs in the lawn are masked chafer beetles. Japanese beetle grubs are second most common. They only feed on turf roots for part of the year. Often homeowners mistakenly attribute damage from disease to grubs. These grubs aren't as big a problem as many people think, but they can cause significant damage if their population is large enough.

The rule of thumb is that if you average 10 grubs per square foot in the lawn, the population is significant enough to treat. Otherwise, the amount of damage they are doing is less than the potential damage an insecticide would do to beneficial soil organisms. To determine how many grubs per square foot you have you have to look. This means using a sharp spade to cut the turf and peel it back, then counting grubs. You do this in several places to get a good average. It's important that you do this at the right of time, otherwise the grubs will either be too deep or above ground as adults. Late May-June is a good time to see mature grubs. Unfortunately, they are too resistant to insecticides to treat, though you can hand pick them from the soil. Either drop them in soapy water or put them in a bowl and leave them for them birds feast on. August-Early September is a good time to see young grubs, and this is also the time to use chemical controls if the numbers warrant it.

We're not sure what kind of pest pressure to expect this year for white grubs. Generally, a wet summer means beetles lay their eggs deeper in the soil below more of their predators and parasitoids. That allows more grubs to survive to adulthood. In 2017, the summer was wet and we expected a large crop of Masked Chafer and Japanese beetles in the summer of 2018. And with the rain we had last year, 2019 numbers should – in theory – be even higher.

Since they don't feed as adults, we don't tend to notice masked chafer beetles. Instead, we monitor potential adult Japanese beetles to gauge the potential grub population. While 2018 Japanese beetle numbers were high in Maryland, locally numbers were generally low. It's possible that heavily saturated soils last spring and early summer culled a large portion of the Japanese beetle grub population before they matured to adults. It's also possible that the wet weather pushed adult beetles into understory and brush to feed on alternative hosts.

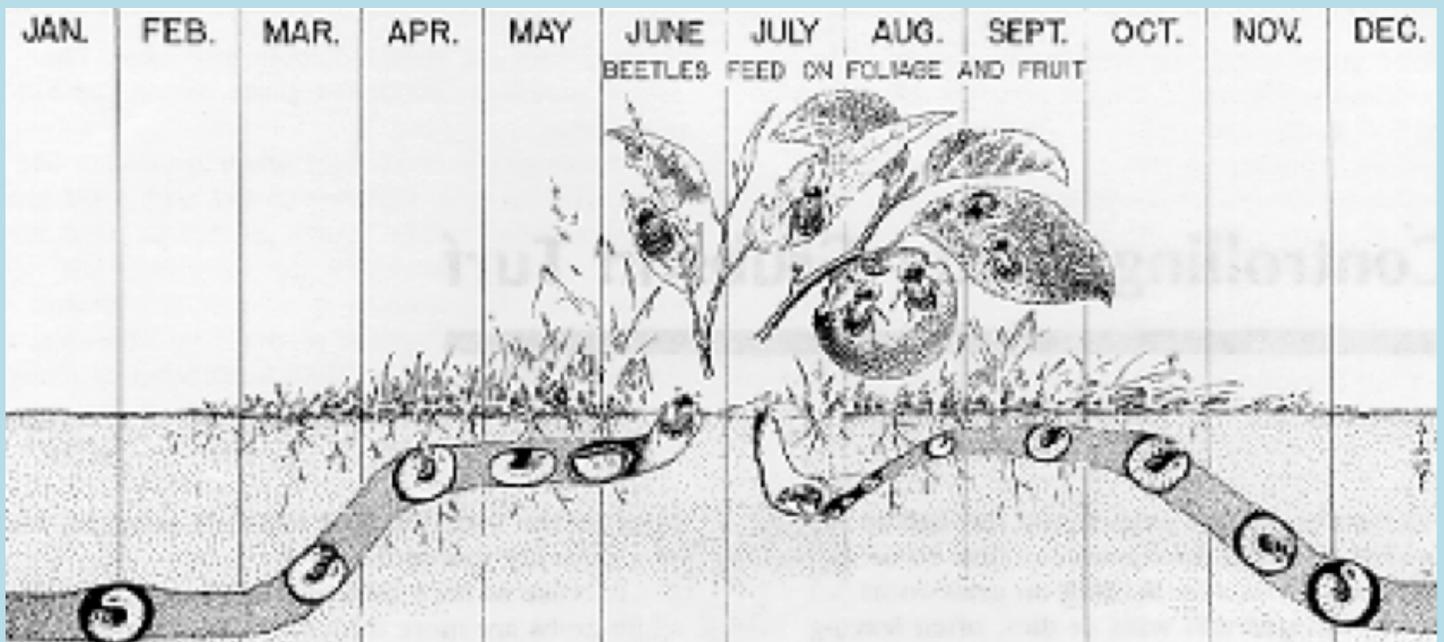
With both beetles, the potential for a large grub population to effect turf in late spring is high. If you suspect you might have a problem, begin scouting in April/May. Hand pick and dispose of grubs you find. If grub numbers are high in the spring, recheck in mid-August. If grub numbers average 10+ grubs per square foot, chemical treatment may be warranted. Grubicides, a class of insecticide that targets grubs, can be effective against white grubs, but remember there are also beneficial beetle grubs that can also be affected.



Scouting for Grubs



Scratching up of turf by birds, skunks or raccoons can indicate a grub problem



Japanese Beetle Lifecycle



Southern Masked Chafer Beetle: Eggs and 1st instar (L), 3rd instar (C), adult (R)

Biology, Ecology, and Management of Masked Chafer (Coleoptera: Scarabaeidae) Grubs in Turfgrass, Journal of Integrated Pest Management, 2016.

VCE Schedule of Classes

Vegetable Gardening Series

Haymarket Gainesville Community Library
14870 Lightner Road, Haymarket, VA 20169
10:15-1:15

Part I: February 16th

Site Selection, Soils, Cover Crops and Compost

Part II: February 23rd

Planting Calendar, Crop Rotation, Vegetable Families, Small Space and Container Gardening

Part III: March 2nd

Pest Management, Vegetable Spotlights, Food Safety

Snow Date – February 23rd

Well Water Class

Initial Meeting – March 25, 7:00-8:30 pm, PWC Board Chambers

Sample Collection – March 27, 6:30-10:00 am, VCE Office on Ashton Avenue

Results Meeting – May 6, 7:00-9:00 pm, PWC Board Chambers

This program provides a low cost well water analysis for homeowners with private water supplies, such as wells, springs and cisterns. There is a \$55 fee to have your well water tested.

Master Gardener Saturdays in The Garden

Location: The Teaching Garden at St. Benedict Monastery
9:00 am to Noon

When: April 13th, May 4th, June 8th, July 13th, August 10th, September 7th, October 5th

Master Gardener Clinics at Local Garden Centers

Location: Merrifield Garden Center in Gainesville, Southern States Manassas, Lowes Manassas, Lowes Woodbridge, Lowes Gainesville

10:00 am to 1:00 pm

Saturdays: April 6th, 13th, 27th, & May 4th, 11th and 18th

Master Gardener Clinics at Farmers' Markets

When: Saturdays at the Manassas City Market, beginning in April, specific dates TBA
Sundays at the Dale City market, beginning in April, specific dates TBA

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