BEST LAWNS NEWSLETTER

Spring 2021 Edition

Virginia Cooperative Extension-Prince William Unit

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

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Breaking the Spring Seeding Cycle

Content: Podcast “Breaking the Spring Seeding Cycle”

As spring approaches and the weather warms up, many look forward to the days of being outside and tending to the lawn and garden. As the snow and ice melt, there may be bare or thinning patches in the lawn. Multiple visits to the garden center or hardware store showcase bags upon bags of grass seed. With springtime comes the commercials on TV advertising the latest and greatest grass and lawn products for spring lawn care. As tempting as it may be to spring seed, it is recommended to wait until the fall to seed with cool season grass.

My new grass seedlings are looking great! Why wouldn’t I put seed down in spring? As the daytime and nighttime temperatures increase and summer approaches, you may notice the spring seeded grass not looking so good. In the dead of summer, the grass gets thin, turns yellow then brown and dies. In addition, if you watered and fertilized in the spring, this is a great place for weeds to grow. Soon enough with no grass growing in that area, crabgrass and weed seeds will germinate and grow. They move into the area, where just a few weeks ago, your beautiful spring seeded grass was growing.

This sequence of events is very common, leaving homeowners frustrated and tired, while seeing no improvement of their lawns. Homeowners may repeat the same process again the following spring or end up giving up completely, surrendering to crabgrass and other weeds.

There is a science behind why spring seeded lawns fail. Most lawns in our area are comprised of turf type tall fescues and bluegrass, which are cool season grasses. They are called cool season grasses because they grow best in cooler weather, like we have in the spring and fall. Their optimum temperature for growing and manufacturing food, photosynthesis, is between 68 to 77°F. Above 77°F, grasses are still able to manufacture food, but at a lower rate. However, once air temperatures rise above 87°F, photosynthesis becomes very limited. This happens for several reasons, but the major issue is that the plants try to utilize oxygen instead of carbon dioxide to manufacture food, and a process called photorespiration begins. During photorespiration, a grass plant uses more energy than it manufactures. So, during periods of high temperatures, plants have limited food production by photosynthesis and the plant is utilizing energy in photorespiration. Without enough energy to produce new growth, we see a significant reduction in growth, both from the shoots and the roots. During this time, grass plants tend to stop growing, roots often die back and then the crowns or the tops of the grass plants thin out.

Older grass plants are more established and have carbohydrate reserves. Yes, they will suffer through the summer but then will resume growth when fall temperatures arrive. The problem is with spring seeded turf. These younger and more tender plants have limited roots and food reserves. With limited food and root reserves and when summer temperatures get high, these young plants cannot tolerate the stresses of summer and often die. This sets up ideal conditions for crabgrass and other weeds to move in.

There are 2 other major problems with spring seeding. First, when managing cool season grasses, pre-emergent products are typically applied in the spring to control crabgrass. Pre-emergent products work by preventing seed germination and they cannot be utilized with

new seeding because they will prevent the new seed from coming up. Second, young turf benefits from fertilization. The young turf has a limited root system and to improve the density, color and growth of the young turf, moderate fertilization is recommended. However, this type of fertilization is not recommended in the spring.

Fall seeding is the ideal time to seed unless you have bare areas or a limited time frame. But even in these cases, it is recommended to overseed again come fall time. Fall seeding allows grass plants to become more established before winter sets in. They can grow roots well into late fall and early winter. When spring arrives, these grass plants develop more, get thicker and grow deeper roots. When summer arrives, their food reserves, and root development are much better, and they can endure the summer stress without dying like the spring seeded grass

Submerged Lawn Recovery

Content from Virginia Tech Turfgrass Clippings "*Submersion Tolerance of Lawns,* written by Dr. Mike Goatley, Extension Turfgrass Specialist at Virginia Tech.

Excessive rainfall along with snow and ice melting can lead to saturated soils and possible flooding. Neither of those situations from mother nature is desirable for the health of lawn. However, according to Dr. Mike Goatley, most of the turfgrass we grow in Virginia will recover from some level of submersion, considering these factors:

- Depth of flooding- If the leaf blades are above water the plant is more resistant to injury.
- Water Movement-If the water is moving rather than stagnant the turfgrass will likely recover.
- The temperature of the water-The warmer the water, the higher the likelihood of injury.

The general submersion tolerance of our turfgrasses looks like this:

- Cool season grasses - Tall Fescue > KY Bluegrass > Perennial Ryegrass > Fine Fescue
- Warm season grasses – Bermudagrass > St.Augustinegrass > Zoysiagrass > Centipedegrass

After the water subsides, you can core aerate the soil after it dries to break up any crusting that may have formed on the surface and prepare to fertilize and seed when necessary. In the spring, remember that your chances of success for establishment of cool-season turf pales in comparison to fall planting, but it is still appropriate to renovate as best you can, understanding the challenges with keeping new cool season plants alive in the summer months. Warm-season grasses are ideally established mid-spring through mid-summer.

Spring Lawn Care

	Cool Season Turf	Warm Season Turf
Measure Your Turf	Fertilizer and Herbicides are applied at rates based on 1,000 sf. If you don't know the size of the turf, you can be over or under applying product.	
Soil Test	Every 3 years for heavy soils or annually for very sandy soils.	
Lime	Apply only if you have a current soil test indicating it's needed. This is NOT annual maintenance. Can be done anytime the ground isn't frozen.	
Compost	Can be in done in Spring, Summer and/or Fall. Apply ¼ inch of compost over the entire turf area.	
Fertilizer: Spring	**Avoid in most cases.** Up to 0.5 lbs. N per 1,000 sf in split application, earlier in the season is better	**Maybe** Do not begin fertilizing until after green up
Fertilizer: Summer	**NO**	**June – August 15th** Up to 0.7 lbs. N per1,000 sf per 30 days
Fertilizer: Fall	**September-early November** Up to 0.7 lbs. N per1,000 sf per 30 days	**NO**
Fertilizer – Annual Totals	**1.5-2.5 lbs. N per 1,000 sf for the average home lawn**	**1.5-2.5 lbs. N per 1,000 sf for the average home lawn**
Pre-Emergent Herbicide	Thick, high cut turf should not need it. Thinner turf may benefit from it if applied at the correct time – See below.	
Post-Emergent Herbicide	Hand pull where practical. Identify weeds to identify the most effective herbicides. Target applications based on when herbicides are most effective against target weeds.	
Insecticide	Grubs are our main turf insect problem. Check to insure 10+ grubs per sf. Treatment is only effective for late July-August with synthetic insecticides.	
Fungicide	Fungicides are usually NOT recommended for home lawns as they often do more harm to soil health than provide benefit to the turf. Pythium blight is the exception. It needs to be treated promptly.	
Aeration	September is usually ideal.	After green up in late spring/early summer.
De-Thatching	Thatch build up shouldn't reach excessive levels at low to moderate fertilization levels.	
Seeding	September to early October	Seeded varieties are not recommended.
Sodding	Sod allows a little wider window for planting than seed, but sod planted before September will need more watering and care.	Late spring/early summer is the time to sod warm season turf. Warm season sod is hard to find locally.

Seeding Cool Season Grasses:

- Early September is usually the ideal time to seed in our area.
- Overseed turf at a rate of 4-6 lbs. per 1,000 sf; seed bare areas at a rate of 6-8 lbs. per 1,000 sf.
- In areas receiving 8+ hours of daily sun, a mix of tall fescue varieties or a mix of tall fescue and Kentucky bluegrass varieties are recommended.
- In areas receiving 6-8 hours of daily sun, a mix of tall fescue varieties or a mix of tall and fine fescues (red/creeping red, hard and Chewings' fescues) are recommended.
- In areas receiving less than 6 hours of daily sun, alternative ground covers are recommended instead of turf.

Fertilizing Cool Season Turf:

- Fall fertilization follows the SON rule – the season runs September, October and November. Avoid fertilizing after Thanksgiving.
- Application rates depend on the amount of slow-release nitrogen in the product but no more than 0.7 lbs. of nitrogen per 1,000 sf of turf is a good rule of thumb.
- Fertilizer with phosphorous should NOT be used without a current soil test recommending phosphorous. However, there are limits to how much you can apply based on the soil test – contact the Prince William Virginia Cooperative Extension office for more information

Fertilizing Warm Season Turf:

- Fertilizing warm season grasses after August 15th is not recommended as it increases the risk of winter damage.

Lime:

- Total Amount Needed is Based on Soil Test
- Apply a maximum of 50 lbs. per 1,000 sf per application when using Ag Lime and Dolomite
- Apply a maximum of 30 lbs. per 1,000 sf per application when using Fast Acting Lime
- When multiple applications are needed, applications need to be spaced 1-6 months apart

Pre-Emergent Herbicide:

- Only use Pre-Emergent that does **NOT** contain Nitrogen. Reapplication may be needed.
- For crabgrass control, apply in spring between when forsythia is in full bloom and when it reaches 50% petal drop (which occurs roughly the time native dogwoods are in full bloom
- Goose grass and foxtail typically require slightly warmer soil temperatures and usually start to germinate 1-2 weeks after crabgrass
- Japanese Stiltgrass can germinate in cooler soils and can germinate 1-2 weeks (or more) before crabgrass
- Annual bluegrass (Poa) germinates in the fall and early winter. Applications in the 1st few weeks of September are recommended. If you are overseed, most pre-emergent products will also prevent germination of turf species, consider post-emergent control with mesotrione (*Tenacity*) instead – contact the Prince William Virginia Cooperative Extension office for more information

- Isoxaben (*Gallery*) is the only product that specifically targets broadleaf weeds. Timing of application depends on target weed(s) and can be tricky to get the timing right but late August - Labor Day weekend is often the benchmark for winter weeds.

Post-Emergent Herbicide:

- Follow IPM practices – Scout, Identify, Determine if Treatment is needed, Apply the Least Toxic Option
- Use Post-Emergent products that do NOT contain Nitrogen where possible.
- New turf will not have the same resistance to broadleaf herbicides as mature plants

VCE Schedule of Classes

Vegetable Gardening Course- If you are interested in growing your own food register for this FREE course. The Vegetable Gardening Course, taught by Master Gardener's Cook's Garden Team, is set up to allow you to learn at your own pace. The course will open February 1st to June 16th. Videos and handouts will be available online, discussion boards will allow you to interact with the instructors and there will be two live question and answer sessions. You must be registered to participate. Register at: https://tinyurl.com/2021-PW-Veg-Gardening

Registration links will close at 1:00pm EST on the Tuesday before a class, a zoom link will be emailed to those who registered prior to the class. For questions or further information please contact the Help Desk at mastergardener@pwcgov.org

February 24, Insects & Critters, 11-12. Join Master Gardner Volunteer Jeff Schneider to learn about the insects (and some critters) in your garden. Jeff will help you identify the friends and the foes, and what you can do to attract beneficial insects. Please register at: https://vce.az1.qualtrics.com/jfe/form/SV_09ELdni3dUrx726

March 3, Disease/IPM, 11-12: Extension Agent, Horticulture and Unit Coordinator Paige Thacker will guide you through how to recognize signs of disease and insect plant damage, identifying insects and how to control them. Please register at: https://vce.az1.qualtrics.com/jfe/form/SV_8um8oanwXyvyDgG

March 10, Lawns, 11-12: Join Education and Outreach Specialist Natali Walker to learn more about residential lawns and lawn care in Norther Virginia. Natali will cover cool and warm season grasses and share tips for managing a healthy lawn and protecting the Chesapeake Bay watershed. Please register at: https://vce.az1.qualtrics.com/jfe/form/SV_7VhvpLUOEHjBGrI

March 17, Weeds, 11-12: Join Virginia Cooperative Extension and Master Gardener Don Peschka explain what a weed is, the characteristics, seeds, life cycle and how to handle weeds. Please register at: https://vce.az1.qualtrics.com/jfe/form/SV_85R59aS3iQI7fYW

March 24, Natives, 11-12: Join Virginia Cooperative Extension and Master Gardeners Jean Bennett and Jannell Bryant for a discussion on the benefits of planting natives. Jean and Jannell will give you tips on what to plant for a beautiful landscape and to attract beneficial pollinators to your yard. Please register at: https://vce.az1.qualtrics.com/jfe/form/SV_eUUEe7fbjipFAhg

March 9, Mike Goatley Turf Talk, 6:30pm-7:30pm. Join Dr. Mike Goatley, Professor and Extension Turfgrass Specialist for "Turf Talk" to learn techniques and tips for a beautiful lawn. Registration is required. Please register at: https://vce.az1.qualtrics.com/jfe/form/SV_7U7N260t82mbcLI

2021 Prince William County Drinking Water Clinic

Public water supplies are tested daily for contaminants but most private water supplies, like wells, are rarely tested. Well owners are encouraged test their water regularly to detect and correct problems early. The Virginia Household Water Quality Program (VHWQP) tests water samples for iron, manganese, nitrate, lead, arsenic, fluoride, sulfate, pH, total dissolved solids, hardness, sodium, copper, total coliform bacteria and E.coli bacteria. **All for the low cost of $65.**

The Prince William Drinking Water Clinic has 4 parts:
1. **Watch Kick-Off Meeting PowerPoint & How to Collect Water Sample using links below: Kickoff Meeting PowerPoint and How to Collect Water Sample**

2. Kit Pickup- on Saturday, March 27th from 9:00am-12:00pm (noon) at the VCE Office, 8033 Ashton Ave, Manassas 20109. We will be offering a drive-through pick up **(Please remain in your car, masks are required. Be on the lookout for VCE tent and signage)**

3. The Sample Drop Off on Wednesday, March 31st from **6:30am-10am ONLY** at the VCE Office, 8033 Ashton Ave., Manassas 20109. **(Physical distancing measures will be in place and masks are required). Be on the lookout for VCE tent and signage)**

1. **Results Interpretation Meeting (Zoom)-**on Monday, May 10th, 7:00pm-9:00pm, there will be a live Zoom interpretation meeting which will explain the report, include a discussion, and answer questions on dealing with water problems. Zoom link and details will be emailed to all registrants.

How much does it cost? Sample kits are **$65** each

The number of kits is limited. Pre-payment online is the only way to guarantee you will get a kit.

There is 1 option for paying for kits:
Pre-pay online by going to https://tinyurl.com/PWVCE-2021VAHWQP **This option is available until March 22nd.**

***Pre-payment online is the only accepted form of payment**