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TEXAS A&M AGRILIFE EXTENSION

SOIL & CROP SCIENCES
TEXAS A&M UNIVERSITY

TEXAS LAWN COMPANION

Spring 2019 EDITION

Spring is here and it's time to really start thinking about your turf! We've had several months of heavy rainfall, which is great for a state where rain is often scarce, but can raise some questions during spring greenup.

Here is what you'll find in this issue:

General Spring Management Recommendations
Dr. Becky Grubbs, Texas A&M AgriLife Extension - College Station

Pawfect Lawns: Considerations for Pet Owners
Dr. Chrissie Segars, Texas A&M AgriLife Extension - Dallas

Spring Pest Considerations
Dr. Becky Grubbs, Texas A&M AgriLife Extension - College Station

Shade Alternatives
Water University, Texas A&M AgriLife Research - Dallas

AggieTurf Research First Look: Landscape Conversion
Baoxin "Bob" Chang, Texas A&M University - College Station

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Questions about TLC?

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Planning to Copy/Paste from this Newsletter?

Hey, we're cool with it! Just please be sure to give our writers credit for their efforts. Plus, we want people to be able to know where to follow-up when they have questions. Thanks for sharing our information!

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A warm welcome to Dr. Segars!

We would like to start by welcoming Dr. Chrissie Segars to the Texas A&M Turfgrass Family. Dr. Segars started as the new Turfgrass Extension Specialist at the Dallas Center on Feburary 1 of this year.

Chrissie is an Assistant Professor and Extension Turfgrass Specialist at Texas A&M AgriLife Extension. Chrissie is originally from McBee, South Carolina and received her Bachelors' degree from Clemson University. She then went on to receive her first Masters' degree from Louisiana State University and her second Masters' degree from Oklahoma State University. She received her Ph.D. in Crop Science with an emphasis in Turfgrass Science from Oklahoma State University. Through extension and research efforts, she hopes to leave it all out on the field and make a strong contribution to turfgrass managers not only in Texas, but the world.

Welcome, Dr. Segars!

Resources

Throughout this issue, you will find a number of references to other resources that we feel are beneficial to having a positive and productive outdoor experience with your lawn. Here are a few of those resources in one place for you to refer back to:

Aggie Turf Website
https://aggieturf.tamu.edu/

AgriLife Extension: Find Your County Agent
https://counties.agrilife.org/

AgriLife Extension Service Soil, Water and Forage Testing Laboratory
http://soiltesting.tamu.edu/

Texas Plant Disease Diagnostic Laboratory
https://plantclinic.tamu.edu/

General Turfgrass Management Tips for Spring

Written by Dr. Becky Grubbs-Bowling

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Watering

You may have noticed that throughout much of the state we have received **A LOT** of rainfall over the past several months. For most of us, it will be some time before we really need to be supplementing irrigation on a regular basis to support healthy turfgrass growth. It can be tempting with the warmer weather this time of year to get outside and start feeding the lawn with water and nitrogen-based fertilizers, but **applying these too early in the year on warm-season turfgrass can promote disease and be detrimental to turfgrass health in the long-run.** Instead, now is a great time to start thinking about your **annual irrigation audit.**

Conducting an audit in March or April allows time to check irrigation efficiency, familiarize yourself with the precipitation rate of your system, and make any repairs before temperatures spike and irrigation becomes a necessity. So, where do you begin?

You have a couple of options:

1. Hire a licensed **Landscape Irrigator, Irrigation Technician, or Irrigation Inspector** to conduct a formal audit on your system. (Cost can typically range from $200 - $700 depending on the size of your system and the scope of the audit).
2. Complete a **catch can audit** on your own.

There are advantages to both.

In the state of Texas, "a person may not sell, design, install, maintain, alter, repair, service or inspect an irrigation system—or consult in these activities—in this state, unless the person is licensed by the Texas Commission for Environmental Quality (TCEQ)." **Licensed irrigation professionals** have undergone considerable training and maintain their training through continuing education within the state. For more information on Landscape Irrigators, and other occupational licenses related to irrigation in the state of Texas, you can click ***here*** .

The advantage to having a licensed professional perform an irrigation audit is that they are the best-equipped to identify less obvious problems with

your irrigation system that may be impeding the efficiency of that system without your knowledge. Particularly if you have moved into a new home and are using the irrigation system for the first time, a professional audit is one way to ensure that your system complies with rule requirements and has no immediate problems. When seeking a licensed irrigation specialist, you can start with your AgriLife County Extension office or local landscape professionals. Many professional lawn care companies will have a licensed irrigator on staff.

A **catch can audit** is one way that you can evaluate your irrigation system on your own. This option can sometimes prove more convenient and cost-effective depending on your overarching goal. Performing an audit yourself also allows you to better familiarize yourself with your irrigation system which can be beneficial in reaching your watering goals and monitoring the system for defects throughout the summer. Ideally, a catch can audit will tell you two key things about your irrigation system:

1. **The precipitation rate.** In other words, how long do I need to run my system in order to put my desired inches of water across my lawn?
2. **Distribution uniformity**. When you run your system, is each area of your lawn receiving equal coverage, or are some areas receiving excess or insufficient water? Uneven water coverage can create problems with turfgrass health and compromise your ability to use water efficiently
3. **Leaks, Clogs, and Broken Equipment.** An audit can help to identify system problems including leaks, clogged nozzles, or broken sprinkler heads.

A helpful video

Texas A&M's ***Water University*** group at the Dallas Center created a useful video guide for conducting a catch can audit which can be found by clicking the link below:

https://www.youtube.com/watch?v=1nlwZ_imn9w&t=56s

You can purchase a catch can set like the one that is available through the ***AgriLife Bookstore***, or you can use similar items you may have on hand such as tuna fish cans or coffee cans.

Remember that it is important to continue monitoring irrigation equipment throughout the summer to prevent new problems from arising.

Turfgrass will not require water on a regular basis until it is actively growing. Remember that environmental factors including temperature, wind, humidity, and precipitation will all influence how much supplemental irrigation is required to support plant growth. To use water most efficiently, you can manually turn-on water based on visible wilt or stress. Even during the hottest months of the year, most warm-season turfgrass will maintain an acceptable appearance with an average of **1 to 1.5"** of water per week applied **deeply and infrequently** (typically across 1-2 days per week).

Early morning watering will help reduce the period of leaf wetness and optimize water-use efficiency compared with evening or midday watering.

Mowing

Mowing is a practice performed on an as-needed basis. It may be April or May before turfgrass requires regular mowing, but you might still find that mowing now can be useful in regulating residual winter weeds and new summer weeds that are starting to emerge. For more information about mowing including an overview of appropriate mowing heights and frequency, visit the AggieTurf ***website*** .
A new publication on appropriate mowing practices for warm-season turfgrasses will be available before the end of April. Subscribers to the AggieTurf listserv will receive a copy upon release. To subscribe to the listserv visit the AggieTurf page (link above), and sign-up using the form on the home page.

Fertilization

When considering nutrient management early in the spring, the focus should generally be more on preparation and planning, rather than early applications. The first step in developing a successful fertilization plan for the growing season is to conduct a soil test if you have not done so within the past year.

A soil test will provide information on key soil characteristics that will influence nutrient management decisions including:

- Soil pH
- Macronutrient availability
- Micronutrient availability

To conduct your soil test, you will need to collect approximately **10 – 15 samples** across the area that you intend to manage in order to get an average estimate of soil properties. Samples should be collected at a depth of between **4" to 6"** where the majority of roots are concentrated in a turfgrass lawn. Combine your samples and blend them well. Samples can be submitted to the Soil, Water, and Forage testing lab in College Station, TX. You can also submit samples to a private lab depending on your personal preference. Finally, you have the option to submit a separate sample for any problem area or area that you wish to manage differently.

Soil Testing Probes

It can sometimes be challenging to collect soil samples from turfgrass areas. You might consider investing in a soil testing probe, or sharing one with neighbors in your community. There are several places to purchase these including major online retailers.

If this is the first soil test you have completed in three years or more, it is recommended that you select the " **R + Micronutrients** " option from the urban soil submittal form. In addition to providing information on macronutrients (nitrogen, phosphorous, potassium, magnesium, sulfur, and calcium), it will provide information on key micronutrients including iron,

zinc, manganese and boron. It can be valuable to evaluate micronutrient availability at least once every 3 years. For macronutrients, it is recommended that you consider an annual soil test, as these may change more rapidly depending on your management practices.

While nitrogen rates can be determined largely by turfgrass species, use, and management capabilities, other nutrient rates including phosphorous (P) and potassium (K) should be determined by your soil test.

In general, nitrogen fertilizer should not be applied to warm-season turfgrass until it has been mowed at least twice for the year.

Warm-season turfgrass lawns in Texas typically require up to three nitrogen fertilizer applications per year, applied between May and October. Single application rates will often be between 0.5 and 1 lb of N per 1000 ft^2. Of course, the annual amount of fertilizer applied will be dictated by growth rate, environmental conditions, and overall expectation of the homeowner.

Texas A&M Soil Testing Lab Website :

http://soiltesting.tamu.edu/

Urban Soil Submittal Form :

http://soiltesting.tamu.edu/files/urbansoil.pdf

It is important not to over-apply fertilizers to your lawn or to apply at inappropriate times as this can result in increased environmental losses and nutrient pollution into ground water and surface water resources. Follow label recommendations for your product and species of turfgrass, recognizing that different turfgrass species may require more or less nitrogen than others. For annual nitrogen requirements by species, visit invididual species pages on the AggieTurf website.

https://aggieturf.tamu.edu/texas-turfgrasses/

Pawfect Lawns

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Spring time is right around the corner! Our grasses are going to start showing their true colors soon! We can't wait for those luscious green lawns to roll around in and make us sneeze. Dreams of lawn of the year start rolling around in our minds…but wait…what is…umm…what is that patch!? Is that a disease?! After further investigation, it looks like we have a case of "doggie spot".

If you are a dog owner, you have probably experienced this phenomenon in the past. Symptoms start out with circular patches that contain necrotic areas with yellow to brown leaves that are usually surrounded by dark, green healthy grass (Fig. 1). Since many turf diseases start out with very similar symptoms, it is important to watch for an increase in size or other symptoms that may indicate an active disease. For more information about turf disease id, see ***www.aggieturf.com*** .

Fig. 1 - Circular patches caused by dog urine.

Photo Cred: Pet Territory

Fig. 2 - Sign deterring use of lawn.

Photo Cred: Popscreen

Dog urine is made up of mainly uric acid, which sends a lot of nitrogen and salt to a small concentrated area. After repeated application to the same area, the result is a burn that may look similar to a fertilizer burn. At times, you may see darker green areas where your dog has relieved himself, this is due to a moderate increase of nitrogen in those areas and may cause turf to grow faster, which results in poor surface uniformity.

If you are concerned about "doggie spot" in your lawn, there are a few options to address the problem. Prevention is the first line of defense and some homeowners may go as far as putting up signs (Fig. 2). Since most dog owners train their dogs to relieve themselves outside, finding an alternate location is not always possible but rotating use areas is encouraged to prevent large amounts of urine in one area. Flooding the spot immediately after seems to be the most effective way to prevent burn from occurring. This also comes with using more water on your lawn and may not be the best use of our Earth's most precious resource. Creeping warm-season grasses like bermudagrass, zoysiagrass, or St. Augustinegrass will likely eventually fill in the spots depending on the severity. If the spot is severely damaged, repair (depending on your type of grass) using seed, plugs, or sod may be your only option. Before replanting the site, be sure to flush salts from the root zone to prevent damage to newly planted turf.

In conclusion, "doggie spot" is preventable, but it is much easier to live with a few spots in your lawn than without your best friend (Fig. 3).

Fig. 3 - My best friend, Gus. The best boy in the whole world.



Save the Date

Texas Turfgrass Association (TTA) Summer and Winter Annual Meetings

For more information on TTA and what it has to offer, visit their *website* .

Spring Pest Considerations

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Disease

Given the historically high rainfall received in many parts of the state over the winter months, there is considerable disease visible in turfgrass lawns this spring. One disease that is currently active is **large patch disease** (*Rhizoctonia solani*), which presents in circular patches can range in diameter from 1 to 20 feet. In some cases, there may be a pronounced orange or yellow ring on the outer edges of each circular patch. Large patch is most active when soil temperatures consistently drop below 70°F and when moisture nitrogen and are abundant. It is not uncommon to see the disease more often in shaded areas or areas that are mowed too short. Though the disease is perhaps most common in zoysiagrass and St. Augustinegrass lawns, it can also affect other warm-season turfgrass species including bermudagrass and buffalograss.

While large patch is largely cosmetic in nature, with recovery occurring with warmer temperatures, spring fungicide applications can be made to limit disease progression. Product recommendations can be found by downloading the Large Patch ***factsheet*** written by Dr. Young-Ki Jo. **Fungicide applications will generally be most effective when made in the fall before symptoms become visible.** Additionally, once temperatures rise consistently above 70°F, the pathogen will become less active despite residual damage visible on the turf.

What will be important now is to ensure that summer management encourages healthy recovery. Avoid periods of prolonged leaf wetness and do not apply water unless it is needed during the early spring.

Depending on the extent of the damage, you may need to replace areas that were killed off by the disease. Waiting until temperatures are warmer (April - May) can help protect new sod and allow you to take advantage of climate conditions that promote rapid root growth and establishment.

For a guide to selecting an appropriate turfgrass species, click ***here*** .

Remember that areas that are in the shade should generally receive less water and nitrogen during the growing season than those in full sun. Raising the mowing height in shaded areas can also be beneficial in increasing leaf area and encouraging healthy turf.

Lingering Winter Weeds

Carolina Geranium

Burclover

Shepherd's Purse

Many Texans are now feeling the full brunt of winter annual and perennial weed pressure, as these weeds have grown beyond the point of being ignored. Here are a few helpful tips to remember:

- **The larger and more mature a weed, the more difficult it will be to control with postemergence herbicides.**
- **When possible, hand-pull weeds as oppose to chemically treating**
- **Take care to contain and remove seed heads in order to reduce seed loading for next year.** When mowing these weeds, collect and bag your clippings. When hand-pulling, you might consider wrapping a weed in a recycled plastic shopping bag to help contain the seeds as you pull the weed up.
- **You still have the option of using conventional chemical control options, but remember that these products may be less effective on these larger weeds.** To optimize control, follow label recommendations to spot spray in order to target these weeds more directly. Many products will also have recommendations to apply sequential applications for particularly problematic or mature weeds. Be sure to read labels carefully and follow recommendations.
- **Remember that many of these weeds prefer cooler temperatures, and therefore will die as temperatures continue to warm up. Sometimes, all we need is a good mower and a little bit of patience.**
- **While we may have missed our window to get the most out of an herbicide for winter annual weeds, now is a great time to target summer annuals that are newly emerging and immature.**

Summer Annual and Perennial Weeds

Warmer temperatures will mean the germination and growth of summer annual and perennial weeds on your lawn. Below, you will find images of a handful of common summer weeds that you can begin to scout for over the next few months. Grassy weeds can often be the most challenging to identify in a home lawn. Remember that structures such as flowers or seed heads can help significantly with identification.

Large Crabgrass

Doveweed

Dallisgrass

Goosegrass

Click here to see more photos of Texas weeds

Transition seasons (spring and fall) are prime periods to be proactive with weed control. Because of the unusual fluctuations in temperatures that we have had, you may have missed your window to take advantage of preemergence herbicides for certain early spring weeds including crabgrass.

With any pest control program, timing is key. Preemergence herbicides should go out before weed seeds germinate to be effective. While pre-emergence herbicide applications should typically be made between mid- to late-February throughout Texas, you may see benefit in preventing some of the later-germinating summer annuals such as goosegrass and sandbur with an application now. Some products will contain both pre- and postemergence herbicides in cases where the goal is to both prevent and control weeds simultaneously.

Postemergence herbicides will be the most effective when weeds are still very small and immature. The fewer leaves they possess, the more success you will have in controlling those weeds. As weeds mature, it is more challenging both for products to be taken up effectively by that weed and to be translocated throughout the weed.

A new guide for homeowner herbicide selection will be out over the next couple of months, but here are a few tips when shopping this spring at major home and garden retailers:

- Pay attention to the **active ingredients** in a weed control product. Several products will have very similar names but completely different active ingredients. Using the wrong active ingredients for your species or cultivar of turfgrass could cause significant injury.
- Always read and follow the label to ensure that your product is appropriate for the weeds you are targeting, your turfgrass species/cultivar, and your area (location, soil type, etc).
- Products containing active ingredients such as **2,4-D, dicamba, and mecoprop-p (MCPP)** will offer **broadleaf control** and are generally safe to use on **bermudagrass** and **zoysiagrass** lawns.
- *Use caution when applying products containing 2,4-D or dicamba on St. Augustinegrass, Buffalograss, and Centipedegrass lawns, as these species can be more sensitive to these herbicides.* Always follow label recommendations and do not over-apply.
- For a **St. Augustinegrass** or **Centipedegrass** lawn, look for products that contain the active ingredient **atrazine**, as this will often be safer to use on these species. Products containing atrazine will typically be labeled as "For St. Augustine Lawns" or something similar. *Do not use atrazine on bermudagrass lawns.*
- Products that contain the active ingredient **quinclorac** will help to control select **grassy weeds,** and will often be included in products that are labeled "For Crabgrass Control". *Do not use quinclorac on St. Augustinegrass lawns.*
- Products containing **imazaquin** (e.g., Image) will also provide some control of select annual grassy weeds as well as **sedges** like Yellow Nutsedge.

For more product recommendations, visit the AggieTurf website to view publications including the **Bermudagrass Lawn Management Calendar** and the **Weed, Disease, and Insect Control Guide in Turfgrass for Texas** .

A quick word about Weed and Feed products:

Combination products containing both herbicides and fertilizers (i.e., Weed and Feed) are commonly used as a means of “hitting two birds with one stone”. While there are appropriate times to use these products, be mindful of appropriate fertilizer and herbicide timings discussed throughout this newsletter. Remember that the application of fertilizer products, particularly nitrogen, too early in the year can be detrimental to turfgrass health. During transition seasons such as spring and fall, individual, rather than dual, herbicide and fertilizer products can sometimes create the greatest opportunity to time applications appropriately and optimize lawn management practices.

Shade Alternatives

Written by AgriLife's Water University

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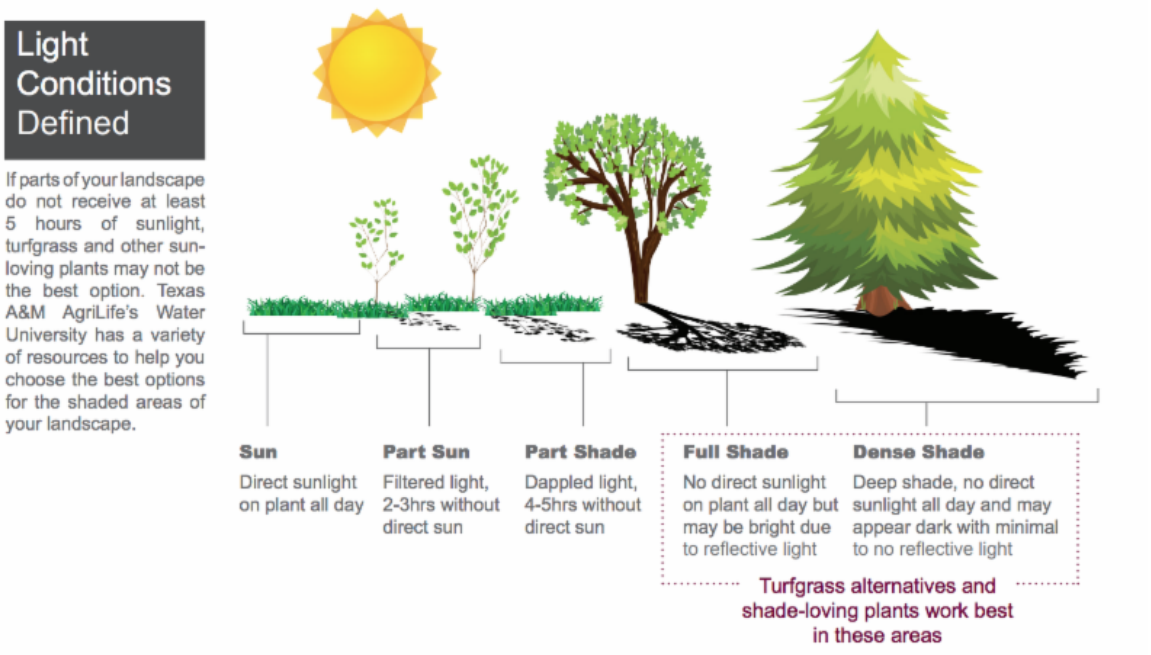
What grows in the shade? It's Water University's most frequently asked question, and it poses a problem most often associated with a homeowner's attempt to establish (or to continue growing) turfgrass in an area that is simply too shady. While turfgrass may no longer be an option, there are hundreds of shade-loving plants, both native and adapted, that will perform exceptionally in the part-shade to dense-shade areas of any landscape. These shade areas are also primed to accept leisure installations that allow homeowners and guests to enjoy the outdoors at home through the warm summer months of North Texas.



CLICK HERE TO VIEW THIS PUBLICATION IN ITS ENTIRETY

More about Water U....

The Water University Team at the Texas A&M AgriLife Research and Extension Center in Dallas is comprised of Texas A&M AgriLife Research and Texas A&M AgriLife Extension Service personnel. The team of water resource professionals conducts research and outreach programming on water quality, water use efficiency and watershed planning. Water University has built strong working relationships and partnerships with local governments, state and federal agencies, corporations and other entities to develop programs addressing water quantity and quality issues. Water University has become a regional and state wide resource for many agencies and municipalities looking for innovative ways to conserve and protect water resources.

To learn more about Water University, or to access additional publications from their program, visit ***https://wateruniversity.tamu.edu/***.

AggieTurf Research First Look

We wanted to give you a glimpse at some of the interesting research being conducted here in the Texas A&M Turfgrass Program. Baoxin "Bob" Chang is a PhD student under Dr. Ben Wherley here in College Station, TX. We have asked Bob to share a little about his research on landscape conversion and water conservation, as this is routinely a hot topic in the state of Texas.

Landscape Conversion Study: A Brief Summary

Written by Baoxin "Bob" Chang

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Major Professors: Dr. Ben Wherley and Dr. Jacqui Peterson

Saving water has long been a hot topic in lawn management throughout the state of Texas. As urban populations continue to grow rapidly, concerns around water conservation continue to grow as well. Traditionally, natural grass lawns dominate the front and backyard landscaping of most houses in United States, which can require a significant amount of water input through irrigation. It has been estimated that 30% to 50% of municipal potable water is used for residential landscape irrigation. In order to improve water-use efficiency, many municipalities and water agencies have enacted a water conservation rebate program encouraging homeowners to replace their natural grass lawns with alternative landscapes, such as xeriscaping and artificial turf. In exchange, homeowners are offered financial incentives to help offset the cost of this landscape conversion. However, many questions still remain around the environmental impact of landscape conversion.

The purpose of this study is to evaluate potential environmental impacts associated with landscape conversion including the variability of runoff dynamics, energy balance, and greenhouse gas emissions across different residential landscapes. In other words, while some landscapes may use less water overall, water use must be weighed against these other environmental impacts to get the full picture.
This study is currently being conducted at the Urban Landscape Runoff Facility located at the Texas A&M University Turfgrass Field Research Laboratory in College Station, TX. Several landscapes have been constructed as part of this study, including St. Augustine lawns, xeriscapes, mulch-based landscapes, artificial turf, and sand-capped lawns. The results of this study will help to inform municipalities and water management districts of the full implications of such conversions. Communities could also refer to this information when enacting rebate programs that incentivize removal of turfgrass and conversion to alternative landscapes, with the goal of reducing outdoor water use.

Project is funded by: The Lawn Institute, Texas Turfgrass Research Extension and Education Endowment, and Scotts Miracle-Gro Company.

Bob's research is on-going. Look for future updates about findings from these studies as well as other research coming out of the Texas A&M Turfgrass program.

Thanks for Reading!

We appreciate you taking the time to read our newsletter. As a subscriber to our listserv, you can look forward to receiving access to the following Extension publications sometime between April and May:

- Mowing Recommendations for Warm-Season Turfgrasses
- A Homeowner's Guide to Lawn Herbicide Selection
- Technical Bulletin: New Products Available or Soon-to-be Available in Turfgrass Management
- The Need to Overseed

Special thanks to Dr. Ben Wherley for his editorial contribution!

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