# Water Is Awesome Use it. Enjoy it. Just don't waste it.

# COMPREHENSIVE LAWN CARE

Healthy lawns have many benefits. They add aesthetic value, serving as useable and versatile outdoor spaces, in addition to providing temperature control and erosion protection in urban areas. But unfortunately, lawn areas are often over-watered, over-fertilized or over-applied with pesticides, which can have detrimental effects on our water resources and the overall health of the landscape. Alternatively, when done properly, regular lawn maintenance can improve the health, longevity and value of your property. By utilizing the best management practices below, you can create a lush, vibrant lawn area, while saving time, money and resources!

## THE RIGHT TURF, FOR THE RIGHT LANDSCAPE

When selecting turfgrass for your landscape there are several important factors to take into consideration. The right turf for one family may not be the right fit for a different household. Certain turfgrasses, like Bermuda and Zoysia, handle foot traffic from kids and pets better than St. Augustine and Buffalo. Some turfgrasses have slightly higher water needs than others, so choosing the right turfgrass may help save water and lower your summer water bill. In landscape areas that receive less than 5 hours of sunlight, turfgrass is probably not the best choice of plant material. Think outside the box and consider shade gardening solutions in those areas. (See the Turf Alternative section)

	Bermuda	Buffalo	St. Augustine	Zoysia
Shade Tolerance	Low	Very Low	Moderate	Moderate
Sunlight Requirement	6 hours+	7 - 8 hours+	5 - 6 hours+	5 - 7 hours+
Mowing Frequency	5 - 7 days	7 - 30 days	7 days	6 - 7 days
Mowing Height	2 - 2.5 inches	3 - 8 inches	2.5 - 3.5 inches	2 - 3 inches
Resistance to Foot Traffic	High	Low to Moderate	Low to Moderate	Moderate to High
Disease Resistance	Moderate to High	High	Low to Moderate	Moderate to High
Water Requirement	Low	Very Low	Low to Moderate	Moderate to High

Four warm-season turfgrasses that grow best in the climate and soils of North Texas. Each has slight variations which might make it a better fit for some lawns and less appropriate for others. Choosing the right turfgrass for your landscape can help minimize the long-term maintenance requirements.

Large lawn areas tend to require more maintenance and more natural resources when compared to mulched landscape beds planted with native and adapted perennial flowers, shrubs and trees. Consider limiting your turf areas to about one third of your total outdoor space. This will provide ample space for kids and pets to play as well as outdoor entertaining, while reducing the time and effort spent on maintaining a pristine lawn. (For more info, read about the "Landscape Rule of Thirds" in our guide **Choosing the Right Plants for the Right Space**.)

#### **TIPS FOR PROPER MOWING**

Consistent and proper mowing are some of the most critical components of heathy lawn care. When best practices are followed, mowing regularly can help reduce pest problems, increase water efficiency and help to create a lush green lawn that looks great from spring to fall!



Make sure all your lawn equipment is in top-notch condition. Maintain sharp mower blades for clean cuts and better overall health of your grass.

Don't bag your grass clippings! Mulching your grass clippings provides water and nutrients back into your lawn. You can purchase a specialty "mulching" lawn mower blade or simply remove the bag from the mower when cutting the grass.

 Avoid removing more than 1/3 of the length of your lawn's leaf blades when mowing. Cutting shorter, or scalping, can increase turfgrass stress, especially during the summer months. During the growing season, mowing weekly (or possibly more often for Bermuda) is recommended to avoid cutting more plant material than necessary in a single mowing.

Raise your mower height during the summer months. A slightly taller leaf blade helps shade the soil and holds moisture. (Recommended height ranges vary by turf species.)

 Change your mowing pattern regularly to prevent ruts, tracks, or irregular growth patterns.

To reduce compaction in heavy clay soils, consider aerating your turf area. Aeration is the process of making holes throughout your lawn by pulling up small soil plugs (called "cores"). This allows more oxygen, water and nutrients to penetrate deeper into the soil profile, creating a more favorable environment for the roots to grow. Warm season grasses are often aerated in the late spring or early summer (avoid aerating your lawn in extreme heat or prolonged droughts).

### WATERING YOUR TURF

The most limiting factor to a beautiful, healthy lawn is applying the right amount of water at the right times without applying too much (which can often encourage pests and disease problems). Knowing how to properly use your sprinkler system is one of the most important keys to success. Making regular adjustments based on our sometimeserratic weather patterns will help protect the overall health of your landscape, plus it's a lot easier than you might think! Whether you have an automatic sprinkler system or use a manual faucet and hose-type sprinkler to irrigate, your sprinkler system should precisely deliver water to your lawn's root zone where it can be effectively used. Accurately calculating your lawn's water needs and taking into consideration soil type, and slope, will help determine the best practices to avoid wasting water. Watering deeply but less frequently can also encourage a more robust root zone that is better adapted to the extreme heat and drought periods common in our area.

# Your Turf Might Need Less Water Than You Think!

The main goal of supplemental watering is to deliver adequate moisture in between rainfall events. In an average year, during the growing season in North Texas (March through October), rainfall typically does a pretty good job of supplying most of the moisture needed to keep established turf thriving. During extended periods without rain, some additional watering may be necessary. While warm season turfgrasses are typically estimated to need up to one inch of water per week, that much is usually only needed in extreme cases during hotter weather or during extended drought periods. Most of the time, ½-inch to 3/4-inches will be sufficient. When watering your lawn, it is also important to think about effective irrigation, or the amount of water that actually enters the root zone where it can be used by your turfgrass. Applying excess amounts of water leads to increased runoff down sidewalks and driveways, which cannot be taken up by the plants. The best way to estimate how much your lawn needs on a weekly basis is to sign up for the weekly watering advise at WaterIsAwesome.com. By using local weather station data, and considering your specific sprinkler types, you can receive customized runtimes to keep your lawn looking heathy.

#### TIPS FOR PROPERLY WATERED LAWN

### Water without creating runoff

For best results, use the cycle and soak method of irrigation for your lawn. Using 2-3 shorter intervals (rather than one long cycle) allows for better absorption of water into the root zone. The goal is to keep all the water applied on the lawn and not runoff into the street. (Learn more in our Wise Watering Guide.)

#### Water before 10:00 a.m. or after 6:00 p.m.

Required in many North Texas cities, this helps minimize water loss due to evaporation during the active growing season, usually March-October. Morning watering is best. Watering turfgrass in winter is not necessary.

#### Change your sprinkler heads' spray nozzles

Water efficiently by installing multi-stream nozzles, which apply water in heavier droplets over a longer timeframe, so less water is lost due to wind, evaporation or runoff.

#### Install pressure regulating heads

Experiencing high pressure in your sprinkler system? Sprinkler systems are designed to operate at around 40 psi. Pressure higher than this can cause excessive misting and overspray from your sprinkler heads. Installing pressure regulating heads can regulate pressure and ensure water is hitting the ground where intended.

#### **Replace old sprinkler controllers**

Select a newer model that has water-conserving settings like 'Cycle and Soak' and seasonal adjustment. Look for the EPA WaterSense™ label. There are also many wireless controllers that can connect to your smartphone and can be easily installed by homeowners or professionally licensed irrigators.

#### Install a rain and freeze sensor

This sensor prevents your automatic sprinkler system from coming on and applying water during rain or freeze events, which helps deter water waste and prevents hazards.

Visit WaterIsAwesome.Com to sign up for free weekly watering advice.

## **FERTILIZER BASICS**

To determine what fertilizer is best for your lawn, consider starting with a soil test. Whether you choose a DIY soil test kit from a local nursery or send a soil sample to a nearby soil testing lab, this inexpensive step can help you determine what nutrients you need, without overapplying those you don't. Continue routine soil tests every 2-3 years to ensure your nutrient balance is optimal.

When purchasing fertilizer, the three numbers on the bag represent nitrogen, phosphorus and potassium ratios. These are the three macronutrients lawns use most. Many North Texas soils may already have enough phosphorous and potassium, so a fertilizer that provides more nitrogen is often the best choice. Consider selecting a fertilizer that has slow-release nitrogen. These products can help avoid the overapplication of nutrients. The fertilizers and other chemicals you apply to your landscape have the potential to leach out or wash away, wasting your money and polluting our local waterways. Fertilizer should only be applied per label instructions and on to green, actively growing lawns for this reason.

One recommended practice is to apply fertilizer with a spreader at half the application rate in the first pass. Then, apply the remainder on a second perpendicular pass in a checkerboard pattern to ensure you do not miss any areas of your lawn. Example: If your fertilizer calls for you to set your spreader at an 8, set it at a 4 and apply back and forth in one direction and then again in the perpendicular direction. This provides the proper application rate with less of a chance for missed areas. Sweep up any excess fertilizer to avoid polluting nearby creeks, rivers and lakes.

# **IDENTIFYING & CONTROLLING WEEDS**

A weed can be defined as an unwanted plant or a plant growing out of place. They are often undesirable in turfgrass areas because they disrupt uniformity and compete with lawns for sunlight, water and nutrients. There are different categories of weeds and proper identification helps determine the proper control methods.



## **Broadleaf Weeds**

Broadleaf weeds have wider leaves with netted veins and can be identified by distinct leaf shapes depending on the species.

ex) dandelion



#### **Grassy Weeds**

Grassy Weeds have narrow leaves with parallel veins and round hollow stems. Seedlings can be more difficult to identify, but most have similar control methods.

ex) crabgrass



## Sedges

Sedges (grass-like weeds) have narrow leaves and can look very similar to grasses but don't respond to the same treatments as grasses, because of their different physiology. Sedges can be easily identified by their triangular, solid stems.

ex) nutsedge

## LIFE CYCLE OF WEEDS

"Weed and Feed" products that contain both fertilizers and herbicides, in addition to 3 in 1 products that contain fertilizers, herbicides, and insecticides, are NOT recommended. It is more effective to utilize these products separately because each is best applied at different times of the year. Applying in the wrong season can waste money as these ingredients are not absorbed and can run off and pollute local water bodies.

<u>Annual Weeds</u> - grow, produce seeds and die within a single year. Generally, they're the easiest to kill. Typically, they are grouped into categories based in the seasons when they are most prominent, "Winter" or "Spring and Summer."

<u>Biennial Weeds</u> - live for two years. They devote the first year to vegetative growth and the second year to flowering and seeding. Generally, biennial weeds are easier to kill in the first year because of their smaller root systems. This also might prevent them from reseeding.

<u>Perennial Weeds</u> - live for three or more years and can still produce seeds each year. Generally, they're the hardest to kill because of their established root systems.

## INTEGRATED WEED MANAGEMENT

In addition to chemical control using your choice of organic and synthetic herbicides, both mechanical and cultural control of weeds should also be included to create an integrated weed management (IWM) plan.

## **Cultural Control**

Most weeds thrive in areas where the turfgrass is struggling. Maintaining a healthy dense lawn can help shade out or overcrowd young weed seedlings. Effective cultural control includes the proper selection and establishment of turfgrass, adequate fertilization, proper mowing practices, efficient irrigation practices (without over watering) and appropriate insect and disease control.

### **Mechanical Control**

One of the most effective ways to get rid of weeds is to physically remove, injure or make the growing conditions unfavorable for them. Hand-pulling after a rain event while the soil is saturated can cause direct damage to the weeds through complete removal or causing severe damage. Heavy mulching can eliminate the light weeds need to grow. Solarization using clear plastic can increase the temperature of the soil in areas adjacent to the lawn.

## AN INTRODUCTION TO HERBICIDE APPLICATION (CHEMICAL CONTROL)

Herbicide treatments should always be applied per manufacturers' labeled instructions and only for the weeds you have present. Over applying herbicides can cause increased pollution of stormwater runoff. Caution should also be taken when applying broadleaf herbicides around trees.

There are different categories of weed treatments. Understanding their purpose and applying them properly should be taken very seriously.

### **Non-Selective**

Non-Selective weed treatments are not selective of what they kill, so caution should be taken to not spray the leaves of desired plants.

### Selective

Selective weed treatments are specific as to what type of plant they will kill; however, caution should be taken to not spray desired plants that the chemical may still affect.

#### Post-Emergent

Post-Emergent weed treatments are used to treat weeds that are already present. Apply per label instructions when weeds are green and actively growing.

#### **Pre-Emergent**

Pre-Emergent weed treatments are used to stop weeds before they ever emerge from the soil; they are best used to treat annual weeds. Apply pre-emergent around late September for winter weeds and around early March for summer weeds. Most pre-emergents control grassy annual weeds but might not be as effective against broadleaf weeds.

As always, carefully follow label instructions when applying both organic and synthetic herbicides. Avoid applying on windy days to avoid collateral damage due to overspray. Most should not be applied before a rain event or sprinkler cycle.

## **COMMON DISEASE ISSUES**

Properly identifying diseases in your lawn is extremely important in creating a treatment plan. Misdiagnosing a problem could be detrimental to your landscape, the environment and even you. Some disease and insect damages can appear similar. When applying chemicals to your lawn and landscape, it is important to follow the label for safety protocols and application rates. Consult with your local landscape professional or county extension office for treatment options.

## **Gray Leaf Spot**

Gray Leaf Spot is a nuisance fungal disease which creates gray to yellow spotting on St. Augustine lawns. It usually does not cause thinning of lawn areas, so fungicide applications are not needed.

## Large Patch

Large Patch typically affects lawns in spring or fall when temperatures are cool. This fungal problem often causes circular yellow to light brown spots in your turfgrass. It is especially problematic when lawns are over-watered or over-fertilized.

## Take-all Patch

Take-all Patch is another fungus most active in cooler temperatures, under shady, moist conditions. Symptoms appear as yellowing leaves and sickly thin roots.

# **COMMON INSECT PESTS**

There are several insect species that can cause damage in turfgrass areas. Properly identifying these pests is the first step in reducing their impact and determining which treatment options might be necessary. Without treatment, turfgrass areas damaged by insects can be more susceptible to supporting weedy plant species.



**Chinch Bugs** are tiny, winged insects which usually cause patches of damage, primarily in sunny areas of St. Augustine lawns, but can also cause minor damage in Bermuda and Zoysia grasses. Chinch bug damage often mimics drought stress (wilted yellowing leaves) and commonly occurs in late spring and summer. Infrequent mowing and over-application of fertilizers may contribute to conditions favorable to chinch bugs. Both organic and chemical treatment options are effective to prevent severe damage.



**Grubs** that cause damage to turfgrass are most often the larvae of Japanese beetles (commonly called June bugs). These larvae feed on the root area which can cause irregular-shaped brown spots in the turf in mid-summer to early fall. While minor damage generally does not require treatment, if you find more than five grubs per square foot, there are both organic and chemical treatment options available.



**Fall Army Worms** are a species of moth larvae that infest warm season turfgrasses in late summer to early fall, after periods of heavy rain. When populations are high, they can strip leaves and cause significant ornamental damage, but because they do not affect the root zone, most healthy turfgrasses can easily recover. If there are more than three caterpillars per square foot, treatments may be necessary to stop their spread to ornamental flower or vegetable areas.

# **TURF ALTERNATIVES**

The amount and quality of light in your lawn areas can change over time, especially in landscapes with maturing trees and shrubs or with new buildings and fences. Unfortunately, all the warm-season turfgrasses that thrive in North Texas (Buffalo, Bermuda, Zoysia and St. Augustine) need sunnier spots to survive. While established turfgrass might grow successfully in shady areas for a while, lawns eventually decline, becoming thinner and less dense. The best intentions of extra water and extra fertilizers only add to pest and disease problems and can ultimately lead to bigger bare spots in your landscape . Updating these landscape areas can not only improve their ornamental value but can also likely help save you time and money in the long run! Plus, taking advantage of the valuable shade that trees provide can help make landscapes more enjoyable during the summer months.

## PLANTS

Trade in your turf for shade-loving ground covers, ornamental grasses and perennial plants with various colors and textures. Consider extending your landscape beds underneath your tree canopy to include and encompass shaded areas where turfgrass is struggling.

## PATIOS AND SITTING AREAS

These spots are also perfect for a simple garden bench to relax or might even make a functional focal point in the form of a shaded patio lined with pavers, gravel or mulch. Once you've designated this usable space, you can fill the surrounding area with plants that look great and thrive in lower light conditions.

## **BE CREATIVE AND THINK OUTSIDE THE BOX!**

Lower light means shady spots are often darker, but they DON'T have to be monochromatic green globs. In fact, contrasting foliage colors and textures can create the illusion of bright spots and add dramatic effect. Brighten dark corners with lime or gold foliage to give the illusion that rays of sunshine are penetrating through the shade. Add in plants with variegated foliage to add visual texture, definition and mimic dappled sunlight. Add bronze, maroons or purples for a punch of contrast or try weaving in some blue-green foliage to add subtle shadings beyond traditional darker greens.

## NORTH TEXAS LAWN CARE CALENDAR

### SPRING

To control spring and summer weeds, apply pre-emergent herbicides when soil temperatures reach 55 degrees for several days (typically, mid-February to early March).

Wait until the lawn has greened up fully BEFORE applying fertilizers. A good rule of thumb is to wait after the second or third mowing. (Avoid Weed and Feed products)

Mow weekly to help prevent weed seeds from forming and to prevent cutting more than 1/3 of the lawn's leaf blades.

Spring rains mean sprinkler controllers can usually remain off unless conditions are unusually warm or if we are experiencing a drought. Visit WaterIsAwesome.com to sign up for weekly watering advice for your area.

A spring sprinkler check can help you identify repairs and make adjustments before your system is needed. If you need assistance, see if your city has a free sprinkler check program or learn how by watching the DIY Videos at WaterlsAwesome.com.

#### SUMMER

Watering deeply and infrequently can help build your lawn's resiliency to heat and drought by establishing a deeper root system. Read our Wise Watering Guide for tips on adopting the "Cycle and Soak" irrigation method.

Raising your mower to a higher setting can also serve to encourage a deeper root system in addition to helping shade the top of the soil from the scorching summer sun.

Avoid applying fertilizers during the summer months. Excess fertilizers can increase growth that is more susceptible to heat stress and can increase the water demand of your turfgrass.

Use a sharp mulching blade on your lawnmower (and leave the bag off) to help reduce cutting stress and the potential for disease. The bonus is that the organic matter added to your soil can help hold moisture during dry periods.

## FALL

To prevent winter weeds, another pre-emergent application can be made in early to mid-September.

Cooler temperatures mean reduced watering needs. As the rain frequency increases and the water demand of your lawn decreases, make sure you water less to avoid unnecessary fungal problems.

Most fallen tree leaves can be mulched back into the soil using your lawn mower. For areas with excessive leaves, consider bagging and adding to a compost pile.

Another application of slow-release fertilizer may be necessary. Adequate soil nutrients can help ensure enough carbohydrates and sugars are stored in the root zone to last through winter dormancy.

### WINTER

The warm season turfgrasses that thrive in North Texas naturally go dormant during the coldest months. During this time, they do not need extra fertilization and almost never need supplemental water.

During the winter, sprinkler systems should remain in the off position to prevent costly damage to your system and landscape. This will also help avoid unnecessary safety hazards associated with frozen overspray or sprinkler run-off. If your system does not have a freeze sensor, one should be installed.

Winter is a great time to clean and sharpen lawn equipment. For gas-powered equipment, changing the oil and removing or stabilizing the gasoline may also be necessary. Used oil and gas should be recycled responsibly at your nearest drop-off location.

Water Is Awesome is a public outreach campaign promoting the efficient use and value of water in North Central Texas. Sponsors are City of Dallas Water Utilities, North Texas Municipal Water District and Tarrant Regional Water District. This publication was written and developed by Rooted In, LLC

