TEXAS TECH UNIVERSITY
Department *of* Plant & Soil Science™

Selecting and Managing Turfgrasses for Landscapes

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TYPES OF GRASS

- Common Bermudagrass- established from seed
- Hybrid Bermudagrass- no viable seed, Vegatative establishment
- Advantages: Very aggressive growth by rhizome and stolon, heat and drought tolerant, traffic tolerant, very good recuperative power, can be mown lower.
- Disadvantages: Limited shade tolerance, poor cold tolerance, aggressive growth, dormant in winter

TYPES OF GRASS

- St Augustine: Established from sod mainly
- Advantages: Shade tolerant,drought tolerant, deep rooting potential, rapid establishment and recovery
- Disadvantages: Cold tolerance, disease tolerance,insect tolerance(Chinch bugs), traffic tolerance, weed control options

TYPES OF GRASS

- Zoysiagrass
- Advantages: Cold tolerance, shade and drought tolerance, traffic tolerance and low fertility
- Disadvantages: Slow recovery from injury, dulls mower blades, fine texture shallower root system,disease susceptability

TYPES OF GRASS

- Tall Fescue (High Shade Only)
- Advantages: Cold tolerant, stays green longer, shade tolerance, over seeding in fall, not aggressive spreader
- Disadvantages: Poor heat tolerance, requires more water, poor traffic tolerance, clumpy grass

TYPES OF GRASS

- Buffalograss: Only native grass to US, dioecious plant (male and female flowers)
- Advantages: very little irrigation required, fast greenup with rainfall, minimal maintenance, moderate traffic tolerance, good cold tolerance
- Disadvantages: Difficult to establish (seed), dull green color, doesn't respond well to high maintenance, herbicide tolerance

IRRIGATION

- The soil dries from surface down
- The roots grow deeper to follow the water
- Therefore you should water deeply and infrequently.
- St Augustine and Bermuda in this area only require 1 inch of water once a week. They both will survive drought with this much water. The grass still needs water when it goes dormant in winter, a third to half an inch depending on conditions
- More frequent watering inhibits root growth and makes the grass less healthy overall

BASIC LAWN CARE

Cutting Height

The cutting height for most turf grasses in this area should be 3.5 to 4.5 inches or as high as the mower can be set.

Higher cutting height will allow the grass to put down a deeper root system and be less dense for less effort in mowing.

Bagging clippings is recommended if there are a lot of weeds growing, to prevent spreading. If the lawn is relatively weed free, then mulching is the best course of action.

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)
Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/9/2018
Printed on: 4/26/2018
Area Represented: 2000 sqft

Report generated for:
Donald Miller
Taylor Co Master Gardeners
1982 Lytle Way
Abilene, TX 79602

Taylor County
Laboratory Number: 507866
Customer Sample ID: Front Yard
Crop Grown: LAWN

Analysis	Results	CL*	Units	ExLow VLow Low Mod High VHigh Excess.	Fertilizer Recommended
pH	7.7	(6.2)	-	Mod. Alkaline	
Conductivity	228	(-)	umho/cm	None	
Nitrate-N	20	(-)	ppm**	CL*	0 lbs N/1000sqft
Phosphorus	110	(50)	ppm		0 lbs P2O5/1000sqft
Potassium	333	(175)	ppm		0 lbs K20/1000sqft
Calcium	5,036	(180)	ppm		0 lbs Ca/1000sqft
Magnesium	483	(50)	ppm		0 lbs Mg/1000sgft
Sulfur	24	(13)	ppm		0 lbs S/1000sqft
Sodium	87	(-)	ppm		
Iron					
Zinc					
Manganese					
Copper					
Boron					
Limestone Requirement					0.00 lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 1 lb N/1000 sqft during late summer (St. Augustine grass), mid-summer and early fall (common bermuda grass and zoysia grass) and every 6-8 weeks for hybrid bermuda grass.

every year under heavy cultivation
every 2 to 3 yrs

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
http://soiltesting.tamu.edu/webpages/calculator.html

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.1

Fertilization

- The first thing to do is get a soil analysis kit from the Extension Office to get your soil analyzed. When you get the analysis back, you will know what your soil needs.
- In this area with mainly clay soil, you will probably need only nitrogen. Apply at the rate recommended by the analysis.
- St Augustine and Bermuda grass require 2 – 4 lbs of nitrogen per year. You should mow twice as needed before fertilizing. Fertilize Apr - Sept

A LITTLE MATH

- If you have a 20lb bag of 21-0-0 fertilizer, the numbers are the percentage of the total (Nitrogen – Phosphorus – Potassium), you multiply 20 x .21 = 4.2lbs of Nitrogen.
- At a rate of 2lbs per 1000 sq ft, this bag would cover 2000 sq ft. At a rate of 4lbs /1000 sq ft it would cover 1000 sq ft.

WEED CONTROL
Post Emergent

- For weeds growing currently, use a post emergent herbicide, such as a broadleaf weed killer. Spot treat the weeds so as not to stress the grass. Pump or electric sprayers with adjustable nozzles are great for this task. Also, use a dye such as Mark-It-Blue to prevent spraying weeds multiple times during the same application.
- Weekly treatment may be required to control the weeds.

WEED CONTROL

Preemergence

- To prevent summer annuals apply a preemergence herbicide before the weed seeds germinate. In this area, late February to early March. The preemergence herbicide must be watered in to activate.
- Most of these herbicides are mitotic inhibitors. They block cell division and inhibit root growth of desired plants as well as the weeds.
- St Augustine will not grow back to fill in dead spots.

St Augustine Roots in Preemergence

Tree Trimming

from Texas Tree Surgeons

- Tree trimming or tree pruning in Texas is generally best when done after temperatures cool off in the fall and before buds begin to grow in the spring. Removal of dead, broken, or damaged limbs can be done anytime. The worst time to trim a tree is in the spring just after it has budded out. The tree will already have used its energy to start new growth, and will not be able to recover from the trimming as well or as quickly.

Tree Trimming

- Why is it best to trim trees in the fall and winter?

- Trimming trees at the right time is crucial to keeping them healthy. During the fall, the tree's internal systems begin to slow, as it prepares to go dormant (similar to hibernation in animals). Entering a dormant state helps the tree survive the winter cold, frost, and ice. As the weather cools, the water in tree tissue begins to be converted to starch, which insulates cellular tissue against freezing damage. During this period of dormancy, trees are able to heal the wounds made from pruning before the stressors of spring, like disease and insects, arrive.

Trimming Fruit Trees

Better Homes and Gardens

- Apples (including crabapples), peaches, pears, plums, and cherries should be pruned in midwinter. Although winter pruning removes some of their flower buds, the goal in pruning fruit trees is to open up the tree to allow in more light for a better crop of fruit, rather than to get maximum bloom. Dormant pruning is especially important for apples, pears, and crabapples because pruning wounds during the growing season expose the trees to a bacterial disease called fireblight.

Tree Trimming

Proper trimming is not just a matter of timing, however, but also of technique. Trimming your trees at the proper time in the fall or winter cannot compensate for the damage done through over-trimming, lion-tailing, or topping. Even though a dormant tree can better withstand these damaging types of trimming, the overall health of the tree may be irreparably harmed.

Tree Trimming

Should cuts be sealed or painted after trimming?

- Sealing or painting wounds after pruning cuts have been made is no longer the best indicated practice for routine trimming. Sealing paint can interfere with the tree's natural healing process. Allowing the tree to form wound wood and seal cuts itself leads to increased tree vigor and quicker recovery. However, when there is a risk for certain diseases, like oak wilt, painting tree trimming wounds is an important protective measure.

Trimming Shrubs

Better Homes and Gardens

- A good starting point for pruning any plant is to remove dead, diseased, or damaged stems as soon as you see them. Dead stems attract insects and invite diseases to develop. Also remove crossing branches, water sprouts (vigorous upright growing shoots that form on trunks or side branches), and suckers (vigorous shoots that develop near or from below ground).

Trimming Shrubs

- Early-spring bloomers, like lilac, forsythia, wisteria, and rhododendron, produce flowers on wood formed the previous year. The best time to prune them is late spring, immediately after they finish blooming. If you prune them later in the growing season or during winter, you'll remove flower buds and decrease the amount of spring bloom.

Trimming Shrubs

- Plants that bloom in summer, such as potentilla and crape myrtle, produce their flowers on new growth from the current season. Prune them in winter while they're dormant, or in early spring just before they push out their new growth. You can even cut them all the way to the ground in late winter, and they'll still bloom that same summer.

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Trimming Shrubs

- For shrubs like boxwood in a shaped hedge, shear the new growth frequently during the early part of the growing season to help maintain their size and form. Keep the top a little narrower than the base so that the upper branches don’t shade the lower ones. Stop shearing the hedge about six weeks before your area’s average first frost. Late winter to early spring or mid- to late summer are some of the best times to prune hedges more drastically.

Trimming Shrubs

- Treat climbing roses and old garden roses that bloom only once per year the same as other spring-blooming shrubs: Pruning after they finish blooming. Repeat bloomers, including hybrid teas, floribundas, grandifloras, miniatures, and modern shrub roses are pruned mostly to shape the plant or to remove winter-damaged stems (as shown here). If they become overgrown, cut them back in early spring.

Pruning

To control the spread of diseases while pruning, dip your pruning shears in rubbing alcohol or a solution of one part bleach to nine parts water.

Equipment Maintenance

- First and foremost, KEEP YOUR EQUIPMENT CLEAN.
- For all powered equipment, make sure the engine fins and air filter are clean and not blocked by debris. Check the recoil starter.
- Check the oil level on all 4-stroke cycle engines, don't under or over fill.
- For mowers, keep the blade sharpened, and clean under the deck after use. Also, check belts on riding mowers.

Equipment Maintenance

- When storing for winter, run the engine out of gas. This prevents the gas from becoming stale over winter. This is a good time to change the oil.
- Add a gasoline stabilizer to your gasoline.
- For 2-stroke cycle engines, mix fresh gas and oil in the spring for first use.
- Change the spark plug every 2 years or sooner if needed.

Equipment Maintenance

- For tools such as hedge trimmers and chain saws keep the blades sharp and lubricated.
- This goes for all hand tools as well. Keep them sharp, it makes them easier to use.
- Keep them clean so they do not rust or corrode away.
- Store your equipment inside and off concrete, if possible, to avoid excessive moisture build up.