MCCULLOCH COUNTY AG NEWSLETTER

JUNE 2020

PROPER LAWN CARE FOR SUMMER

Homeowners know how important water is to a healthy lawn. Water is a limited resource in Texas, and it will become more limited as the summer temperatures increase. Water rationing programs and rising water prices are already occurring in some areas of the state.

Soil Type

Soil type affects the amount of water a lawn needs. Of the three soil types (clay, loam, and sand), clay soil retains the most water and thus needs watering less often. However, because water seeps into clay soil more slowly, it must be applied at lower rates over a longer period of time. Sandy soil retains less water than clay soil, but less water is needed to properly wet sandy soil. Therefore, watering sandy soil takes less time than watering clay soil but must be done more frequently. Loam soil lies between clay and sandy soil in its ability to hold water. Loam retains a moderate amount of water following irrigation and requires a moderate amount of water. Water moves very slowly into some soil, especially fine-textured clay and loam. If a sprinkler head applies water faster than water can seep into the soil, significant water can be lost as run-off. To avoid this problem, use sprinklers with low application rates and/or irrigate to a point just before run-off. Then stop watering. Let the surface dry and then begin watering again. Repeat this process until the soil is wet to the desired depth.

When to Water

Rather than watering on the same schedule each week, adjust your watering schedule according to the weather. Irrigate deeply. Then wait until the grass begins to show signs of drought stress before watering again. Symptoms of drought stress include grass leaves turning a dull, bluish color, leaf blades rolling or folding, and footprints that remain in the grass after walking across the lawn. To time watering properly, look for the area of the lawn that shows water stress first. Water the entire lawn when that area begins to show symptoms. A lawn that is watered deeply should generally be able to go 5 to 8 days between waterings. Established lawns with deep, extensive root systems sometimes can be watered less often. However, if soil is less than 5 inches deep, irrigation may need to be more frequent. Early morning is the best time to water. Wind and temperatures are usually the lowest of the day, and water pressure is generally good. That allows water to be applied evenly and with little loss from evaporation. Watering late in the evening or at night causes leaves to remain wet for an extended period of time, which increases the chance for disease.

How Much to Water

Thoroughly wet the soil to a depth of 6 inches with each watering. Shallow watering produces weak, shallow-rooted grass that is more susceptible to drought stress. Soil type, sprinkler style and water pressure determine how much water is needed to wet the soil to a depth of 6 inches and how long a sprinkler must run. Use the following steps to determine how long to run your sprinkler or irrigation system.

- Set five to six open-top cans randomly on the lawn (cans with short sides such as tuna or cat food cans work best).
- Turn the sprinkler head or system on for 30 minutes.
- Measure and record the depth of water caught in everyone can.
- Calculate the average depth of water from all of the cans. For example, you have used five cans in your yard. The amount of water found in the cans was as follows: 0.5-inch, 0.4 inch, 0.6-inch, 0.4 inch, and 0.6 inch. Add the depths together and then divide by the number of cans you used (five in this case). *0.5 inch + 0.4 inch + 0.6 inch + 0.4 inch + 0.6 inch = 2.5 inches, 5 cans = 0.5 inches of water in 30 minutes*
- Use a garden spade or a soil probe to determine how deeply the soil was wet during the 30-minute time period. The probe will easily push through wet soil but less easily into dry areas.
- From the amount of water that was applied in the 30-minute cycle and the depth that it wet the soil, you can then determine how long the sprinkler must run to wet the soil to a depth of 6 inches.

In this example, the system put out .5 inch of water in 30 minutes, wetting the soil 3 inches deep. Therefore, 1 inch of water will need to be applied to wet the soil to a depth of 6 inches, giving a total watering time of one hour.

Checking Your Irrigation System

There are many different irrigation systems available. Whether you choose an aboveground or underground system, it is important that it is working properly. A routine check should be made to ensure that water is being applied where it is needed, in the amount that it is needed, and in a uniform manner. Use the can method to check the distribution and amount of water being applied, and then make any needed adjustments. Make sure sprinkler heads have the right water pressure to apply water as drops and not as mist. Excess water pressure can cause significant water loss. Sprinklers should never water sidewalks, driveways or streets.

Management Practices

The way you care for your lawn affects the amount of water it will need. You can conserve water by properly fertilizing, mowing, controlling thatch, reducing soil compaction, and considering the salt content of water in the region.

To determine how often to mow, use the “one third” rule no more than one-third of the leaf area should be cut at any one time. Frequent mowing produces thicker, denser turf. The denser the grass, the less water will evaporate from the soil. Also, dense turf is more able to resist weeds.

ANIMAL UNIT CONVERSION CHART

As we begin to enter what looks to be a hot and dry summer we need to start thinking about stocking rates. As pasture conditions become poor with the hot and dry weather producers need to keep both livestock and wildlife in mind. Attached is a conversion chart for Animal Units for domestic livestock, native wildlife, and exotics.

Kind of Animal	Body Weight Pounds	Daily Ave Intake % of BW	Annual Forage Intake Pounds	AU per Head	Head per AU (Rounded)
Domestic Livestock					
Beef Cattle (Cow) *	1000	2.6	9490	1	1
Horse	1100	3.0	12045	1.27	1
Domestic Sheep (Ewe)	130	3.5	1661	0.18	6
Spanish Goat (Nanny)	90	4.5	1478	0.16	6
Boer x Spanish Goat (Nanny)	125	4.0	1825	0.19	5
Angora Goat (Nanny)	70	4.5	1150	0.12	8
Native Wildlife					
White-tailed Deer	100	3.5	1278	0.13	7
Mule Deer	135	3.5	1725	0.18	6
Pronghorn Antelope	90	4.0	1314	0.14	7
Exotic Wildlife					
Axis Deer	150	3.5	1916	0.20	5
Sika Deer	145	3.5	1852	0.20	5
Fallow Deer	130	3.5	1661	0.18	6
Elk	800	3.0	8760	0.92	1
Red Deer	350	3.5	4471	0.47	2
Barasinga Deer	350	3.5	4471	0.47	2
Sambar Deer	400	3.5	5110	0.54	2
Pere David's Deer	400	3.5	5110	0.54	2
Sable Antelope	500	3.0	5475	0.58	2
Blackbuck Antelope	75	4.0	1095	0.12	9
Nilgai Antelope	350	3.5	4471	0.47	2
Scimitar-horned Oryx	400	3.5	5110	0.54	2
Gemsbok Oryx	400	3.5	5110	0.54	2
Arabian Oryx	150	3.5	1916	0.20	5
Addax	250	3.5	3194	0.34	3
Ibex x Boer Goat	125	4.5	1825	0.19	5
Impala	130	3.5	1661	0.18	6
Common Eland	1000	2.5	9125	0.96	1
Greater Kudu	450	3.5	5749	0.61	2
Sitatunga	200	3.5	2555	0.27	4
Waterbuck	500	3.0	5475	0.58	2
Thompson's Gazelle	85	4.0	1241	0.13	8
Mouflon/Barbado Sheep	120	3.5	1533	0.16	6
Auodad Sheep	200	3.5	2555	0.27	4

This chart is based on the standard concept of an Animal Unit being one 1000-pound beef cow consuming an average of 2.6% of her body weight daily throughout her yearly production cycle. Actual daily consumption will vary considerably throughout the year.

Young of the year (calves, lambs, kids, fawns) are considered as part of the mother until weaning. After weaning, they are considered a separate animal and should be added.

* Other sizes and classes of cattle are usually calculated as 0.1 AU per 100 pounds of body weight. (700-pound steer = 0.7 AU; 1200-pound cow = 1.2 AU; 1500-pound bull = 1.5 AU; etc.)

For wildlife species, the AU Equivalent is based on a normal population consisting of females, males and yearling animals. If a specific herd has an unusually high proportion of females, the average weight will be lower, and the AU Equivalent may need to be adjusted.

Chart developed by Steve Nelle and Stan Reinke, NRCS with input from literature and other specialists from TCE and TPWD.

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