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## TURFGRASS MANAGEMENT

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# Watering Your Lawn

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Water is an essential element for a lawn. Rainfall is plentiful in the rainy season but often insufficient during the dry season. Daily temperatures on Guam can be close to 90°F year round, which causes large water losses from soils and plants. Our soils are usually shallow and do not hold much water therefore our lawns may suffer from drought stress.

### WHEN TO WATER

Some grasses need more water than others do. It is best to water your lawn when it begins to show signs of drought stress. Substantial delay (usually a few days) can cause permanent damage.

Drought Stress Indicators:

- \* bluish-gray areas in the lawn
- \* footprints or tire tracks that remain in the grass long after being made
- \* many leaf blades folded in half
- \* soil sample from the root zone feels dry

### AMOUNT OF WATER TO APPLY

The amount of water to apply at any one time varies with the amount of water present in the soil, and the lawn's drainage characteristics. Proper watering wets only the turfgrass root zone, does not over-saturate the soil, and does not allow water to run off. Usually 1 inch of water is required to wet the area thoroughly. This is equivalent to 600 gallons of water for each 1000 square feet of

lawn. Water demanding turfgrasses require no more than 0.3 inches of water per day, thus two waterings per week is sufficient. If significant rainfall occurs, irrigation should be suspended until turf shows water deficiency symptoms.

### MANNER OF APPLYING WATER

Water should never be applied at a rate faster than it can be absorbed by the soil. If the sprinkler applies too much water, it runs off and is wasted. This seldom happens with small sprinklers unless the lawn is thick or the soil is very compacted.

Light, frequent watering is worthless because water won't seep past the first couple inches of soil so that over time, shallow root systems are developed. Excessive irrigation, which keeps the root system saturated with water, is harmful to the lawn as well. Roots need a balance of water and air to function and grow properly.

The time of watering is important. The best time for lawn irrigation is in the early morning hours, before the sunrise. Watering during the day can waste water by excessive evaporation and during very hot periods can scald the lawn. Watering in late afternoon or late morning may be detrimental because it promotes turf disease development. Lawn irrigation should be scheduled to avoid peak residential water demand if using municipal water.

#### Disclaimer

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Some quickly growing grasses such as Bermudagrass and St. Augustinegrass usually need more water than slower growing zoysiagrass (Japanese lawn-grass) and centipedegrass, but all four may need supplemental irrigation during the dry season. One of the most common mistakes is over watering. Drought stress is easy to notice but over watering is not so obvious and easy to detect. Sometimes the presence of sedges (*Cyperus* spp.) indicates that too much water is being applied.

An efficient watering program combined with a moderate level of fertilizing and proper mowing height will produce a superior lawn. Not only will your lawn look good, but it will also be able to withstand the stresses it encounters.

**Remember** that your objective is to keep water in the root zone of the grass for as long as possible.

### TIPS FOR TURFGRASS WATERING

1. Know how much water your system applies over a time period. Simply place coffee cans in a straight line from your sprinkler to the edge of the watering pattern. Turn the water on for 15 minutes measure water depth in all used cans and calculate the average. Multiply this number by four to determine the irrigation rate in inches per hour.
2. Make sure your sprinkling system applies water uniformly. Don't mix different sprinkler types or let the reach of two sprinklers overlap excessively.
3. Apply no more than 1 inch of water per irrigation.
4. Wait until turf stress symptoms are noticeable before applying water. Watch the grass for persisting prints from foot or vehicle traffic, folded leaf blades and/or bluish-gray color.
5. Don't water when you are quite sure that it will rain.

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