



## GENERAL WATERING INSTRUCTIONS FOR ESTABLISHING NEW GARDENS OR PERIODS OF LITTLE OR NO RAIN

### Soil Saturation

The ideal saturation level for each plant or tree is for all the soil in the drip line area around the entire circumference to become soaked evenly to a depth of at least 2 inches or more, as can occur naturally with a steady slow rain, constantly all day. Inserting a finger into the plant's root ball is the best gauge in determining the amount of water that is available to the root system. Pinch a small amount of soil between your thumb and forefinger. release it. If the soil crumbles away, it is too dry. If the soil holds together, it is acceptable. One inch of water is sufficient to soak the ground to a depth of 6 inches. To measure, place an empty coffee can in the area and water until one inch is collected in the can.

### Water the Soil Surrounding Plants or Trees in the “Drip Line”

Plants and trees take in moisture ONLY from their roots and in particular the smallest 1/3 of them. They do NOT take in moisture from their leaves so, though it is normally fine to do so, it is never necessary to water foliage. In the case of disease prone plants such as roses (all except “Knock Out” roses), watering foliage can even be detrimental. The “drip line” is the circular area that falls directly below the plant's most outer leaves, where rain water drips naturally. The drip line is where your watering or irrigation can be most effective and best directed to hydrate the plant.

### Manual Watering Technique

Use a hose with a breaker nozzle or break the stream with your thumb. Do not use a pistol grip or similar spray nozzle, these spray too hard. A scattered spray is more effective than a stream coming out of a hose. Place the hose at the base of the plant. Water thoroughly for small plants approximately 2-3 minutes and 5-10 minutes for larger plants, or about the same amount of time it takes to listen to one song on your iPod. This will allow the water to soak deeply into the soil. Water large areas with a sprinkler.

### Water Pressure Should Be “Medium”, Let Water Puddle

Whether you are using a hose to water one plant at a time or sprinkler to cover a larger area, keep water pressure on “medium”. Watering too quickly or too slowly, is ineffective. Letting the water puddle under the plant in drip line will allow the soil and plant adequate time for uptake.

If water pressure is too hard, and water comes out too fast, you may inadvertently erode (wash away) mulch and soil that protects plants roots. When roots are exposed they can dry out quickly, stressing and even killing a plant. Additionally, this kind of speed in watering is ineffective because water tends to “run off” and never soaks in to soil adequately.

If water pressure is too slow, you may not thoroughly soak the soil in the time you've allowed. It is ok to water a plant or tree by placing a hose on a slow leak, making a puddle at the base near the drip line, but keep in mind the ideal soil saturation level is to a 2" depth all the way around the plant's drip line. If you set a hose and leave it for a time, return and move it so more than one isolated spot on one side gets soaked. And, if you are watering a tree, the bigger the tree or plant, the more water it requires and desires.

### Establishing Your New Plantings

week	watering frequency
weeks 1 - 2	4-5 times per week
weeks 3 - 6	every other day
weeks 6 - 12	twice a week

For new plantings, it is nearly impossible to water too much. It is important to water consistently several days a week, certainly 4 to 5 times a week at the beginning, during the growing season - spring, summer and fall. In the Mid-Atlantic region, that means the beginning of March to well into November. Even when perennials die back and deciduous shrubs and trees lose their leaves, they will still be taking moisture in through roots until the ground becomes hard and cold. In subsequent months and seasons, when plants have already been established and are thriving, it isn't necessary to water quite as frequently.

But, just as animals need a regular water source to survive, so do plants. It is particularly vital to water consistently in the first 6 weeks when plants have been stressed from transplanting and roots have not yet taken hold in the ground. Using a "soaker hose" can be effective and time saving for watering maintenance but they are not intended for new garden establishment. If you plan to use soaker hoses to help you water more frequently than you might otherwise, do so on a regular basis for 1 - 3 hours at a time and supplement with hand watering and sprinklers as often as possible. A good soaking is better than a light sprinkle.

Sod should be kept NEARLY soaking wet, more than just moist, for the first 2 weeks. Once watered, it should be too wet to walk on without soaking your shoes and sinking down. Subsequently, continue to water on the regular basis. Blue grass and tall Fescue need one inch of moisture per week year round to prosper. Once your grass is established, you are much better off saturating the grass once a week rather than sprinkling several times a week. Sometime during the rooting period, the sod will need to be mowed. Never remove more than 1/3 of the blade at one time and never allow grass to be cut shorter than 2 inches.

### PROPER MULCHING FOR MOISTURE RETENTION

Mulch can be very effective in holding moisture in the soil near plant roots. But when mulching is done incorrectly, it can be ineffectual or even detrimental. Many times you can see mulch mounded at the base of trees and plants in the shape "donut" or "volcano". The intent of these mounds are to direct water to the plant's or tree's roots, but in fact what they actually do is the opposite, send water away. Also, these mounds can quite easily become compressed by their own weight, forming a hard impenetrable "shell" around the base of the plant or tree that prevents water from saturating the soil below it. It can get matted together especially when it is allowed to dry out completely in between waterings.

Use common sense to prevent a hardened "shell" layer from forming around trees and in garden beds. Do not add too much mulch at one time, 2" to 3" is the right amount to maintain for good moisture retention. Around trees, try not to create volcanoes that send water away and on down the hill. Instead, when mulching near a tree, spread mulch lightly, in a larger area that can still allow light and water to penetrate. Make it "fluffy" to the touch. Keeping mulch moist, not allowing it to dry out for too long. Doing so will keep air and space between the mulch particles. If mulch becomes matted, poke holes and loosen it.

Use finely ground pine bark - "Pine Fines" and/or shredded hard wood for your mulch. Smaller particles break down more easily to send nutrients to the plants. Add "Leaf Grow" (commercially available composted leaf matter) for added nutrients and to help keep air in between the soil particles.

### PLANT MATERIAL REPLACEMENT

If a plant or tree fails to thrive, then the installation contractor MAY (or may not) replace it for you within the first year after installation. Willow Landscape Design is not responsible for plant replacement but we can assist you and facilitate replacement with the installation contractor. The installation contractor promises to provide excellent quality plant material, but can only guarantee the health of the plant material with proper irrigation. The installation contractor will not replace plant material if it is determined that you have failed to supply adequate water. If you suspect a plant or tree is not thriving, it helps to notify the installation contractor (or Willow Landscape Design) as soon as you notice a decline so that it can be checked and tracked. The installation contractor may make recommendations for care strategies. And/or they may ask you to wait through a season, especially through winter, to give plant material time to regenerate. When plant material dies, it is more likely that the installation contractor can replace plant material if you have given them proper notification and taken corrective steps, or waited for a requested period of time.

### PESTS & DISEASES

Diagnosing insect and diseases can be very tricky. If you notice anything unusual, please call the installation contractor, willow landscape design or Maryland Extension's Home and Garden Center at 800-342-2507. Again, with proper notification, treatment or care, it may be possible to bring a plant back to health.

PLEASE NOTE: These guidelines were developed with contributions from the professional installation contractors we work with.