

## Water and Disease Connected

by Jane Morse, University of Florida/IFAS, Manatee County Extension Agent

Our actions can either benefit disease development, or help to stop it in its tracks. There are a variety of things we can do to keep our plants healthy and disease-free. One of these is correct watering. Too much water causes many diseases (and weeds).

So, what is the best way to water? Since fungi (disease organisms) need water to grow, the goal is to shorten the amount of time that the leaf surface stays wet. Watering early in the morning, since it allows the leaf surface to dry off, is the best time to water. When watering shrubs, try to water at ground level and keep the leaves from getting wet.

The amount and frequency of water is also important. Many plants tell you when they need water - they start to wilt. Lawn grasses will show wilt by folding their leaf blades in half lengthwise, changing their color to a blue-grey tint and showing footprints that last for a long time. When 50% of the lawn shows these signs, it should be watered, but not before. If rain is expected in the next two days, you can hold off on the water. Beware - roots that have rotted because of over-watering or disease are unable to uptake water and this can cause plants to look wilted. If the soil is damp or wet and the plant looks wilted, it's not because it needs water!

The amount of water that should be applied is usually  $\frac{3}{4}$  of an inch (exception: landscapes installed on top of compacted fill dirt with a shallow layer of soil on top). Most plant roots are in the top 12 inches of soil, and three-quarters of an inch of water goes 8 to 12 inches deep in the soil, providing plenty of moisture for the roots. Even though the top inch or two of soil feels dry, there may still be plenty of moisture deeper down. A soil core is a super tool for truly seeing how wet or dry the soil is down to about 14 inches deep. The only way to know how much water is being applied is to calibrate the sprinkler system. This is a simple process. Give us a call (722-4524 and ask to speak to a Master Gardener) and we can send you the "how to" brochure.

Many established drought-tolerant trees and shrubs require little or no extra watering. If they are planted in areas where their roots are confined to a small area, they may need some extra watering. Plants that are not drought tolerant may need extra water during extended drought periods to look their best. Trees and shrubs regularly watered with the lawn are usually over-watered. It is best to separate lawn watering zones from tree and shrub watering zones.

Frequency of watering changes with the time of year. In the summer when the days are long and hot, plants require more water. Fortunately, summer is our rainy season and plants usually get plenty of water. In the winter, days are short and cool and plants don't need much water. There are usually only three months (April, May & October) when landscapes might require extra watering than what Mother Nature provides. To have healthy plants, take the sprinkler system off the automatic setting and run it manually, watch for signs of wilt in the lawn, and water only when necessary.

Watch “Your Florida Garden” on channel 19 (Comcast) or 21 (Time Warner) for more gardening information. It broadcasts Sunday at 7 PM, Tuesday at 10 AM and Thursday at 8 PM.

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