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Coping with Drought in the Landscape[1]

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Drought is likely to occur in every part of Florida at one time or another. Increased urbanization, coupled with a limited water supply, is predisposing much of the state to a greater chance of water shortages. Because of Florida's sandy soils, plants may experience drought stress after only a few days without rain or irrigation. During a drought, or when conditions indicate a drought may be imminent, the water management districts have the authority to restrict water use. The restrictions are designed to be equitable, but high priority is given to water use for human consumption, agriculture, and industry. Accordingly, irrigation for commercial and home landscapes may be restricted. With these limitations on water, the landscaper or homeowner must decide how best to use the limited water available for landscape irrigation.

The following guidelines are given as suggestions for management practices during drought. Some of the recommendations should be followed as normal irrigation practices; they are included here for those individuals not already using proper water management practices, and as reminders for those who are. Further information on proper water management practices can be found in ENH-9, *Watering Your Florida Lawn*; ENH-57, *Preparing Your Lawn for Drought* and ENH-72, *Landscape Design for Water Conservation*.

WATER MANAGEMENT PRACTICES DURING DROUGHT

General Practices

Irrigation Priorities. Irrigate highly visible and intensively managed areas first. Drought sensitive plants should have high priority, but turf should have lower priority. Although turf is drought sensitive, it is cheaper to replace turf than to replace trees and shrubs.

Time of Day. Water early in the morning. Less water loss occurs from evaporation and wind drift in the morning because of cooler temperatures and less wind.

Irrigation Frequency. Irrigate deeply at long intervals rather than frequent, shallow waterings. Deep watering improves drought resistance by promoting deeper, more extensive root systems. Depth of watering should be six to twelve inches for turf and bedding plants, and twelve inches for perennials, shrubs, and trees. One inch of irrigation wets a sandy soil to a depth of about 12 inches.

Maintenance. Examine the irrigation system and repair leaks promptly.

Weed Control. Keep weeds under control; weeds steal water from plants.

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Fertilization. Don't fertilize or, if you do, do so with a low nitrogen fertilizer. Fertilization stimulates growth and increases water needs.

Pesticide Application. Avoid unnecessary applications of pesticides that require "watering in."

Management Practices for Turf

Irrigation. Irrigate turf only after about 30% of your lawn starts to wilt. Signs of wilting include footprints that remain in the grass long after being made, a bluish-grey appearance to the lawn, and a large proportion of leaf blades that are folded in half length-wise.

Cutting Height. Raise the cutting height of turf. Although taller grass uses slightly more water than shorter grass, a higher cutting height promotes deeper rooting and maintains turf quality longer.

Mowing Frequency. Mow less frequently. Mowing stresses the grass plant by increasing respiration and reducing root growth. In addition, never remove more than one-third the length of the blade to prevent too much stress on grass.

Mower Blade. Use a sharp blade when mowing. A sharp mower blade produces a cleaner cut that heals more quickly and loses less water than a cut made by a dull blade.

Management Practices for Bedding Plants, Shrubs and Trees

Mulch. Add mulch to beds to reduce evaporation from soil and to moderate soil temperature, reducing stress on roots. Final depth of your mulch should be 3 to 4 inches after settling.

Irrigation Methods. If possible, don't use overhead sprinklers for shrub and flower beds; hand water, flood irrigate, or use trickle irrigation. Greater water loss can occur with overhead irrigation because of evaporation and wind drift.

Irrigation Frequency. Irrigate trees and shrubs after they start to wilt. Drooping leaves and a change in leaf color are signs of wilting. Many trees and shrubs can survive drought without irrigation, providing they are well-established and were irrigated prior to the drought.

Shade. Move container plants to shaded areas so their water needs will be reduced.

DRASTIC MEASURES FOR WATER CONSERVATION DURING DROUGHT

The following recommendations should be followed when drought is so severe and water use is so restricted that landscape plant survival is in question.

- Only irrigate plants when they start to wilt.
- Apply chemical wetting agents to soil so it will absorb water uniformly and prevent dry spots.
- For bahiagrass lawns, stop irrigating and allow the grass to go dormant. Bahiagrass will turn brown, but it recovers well when irrigation resumes.
- Prune plants severely to reduce leaf area.
- Remove weak plants.
- Thin dense beds of plants to reduce competition among plants.

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