



MEMO

January 4th, 2018

To: Mainscape Customers

From: Dr. Stephanie Parker, Regional Director of Agronomy, Mainscape

Re: Protection of plants from frost and/or freeze

Temperatures are forecast to drop into the 30s throughout much of Central and South Florida tonight. Frost is likely to form if wind is calm even if temperatures stay above freezing. Exposed tropical plant species and annual flowers may be damaged, the extent of which will depend on how cold it gets and how long low temperatures persist. Here are a few measures to take before and after a frost or light freeze to protect plants:

Before a Freeze

Watering: Watering landscape plants before a freeze can help protect plants. A well-watered soil will absorb more heat from solar radiation during the day than dry soil. The heat will be released over night. The rain that typically moves in ahead of a cold front should be adequate. Avoid watering plants while air temperature is at or near freezing. Evaporation of water from wet leaves will reduce the temperature even further at the leaf surface and increase the potential for damage. Mainscape irrigation personnel have shut down irrigation systems in preparation for the cold temperatures and will turn them back on after the potential for frost has passed.

Covering: Covering plants will protect them from frost by reducing radiant heat loss from the plants and ground to the atmosphere. Commercial frost cloth is the best option because it is light enough to allow air flow and light penetration, but thick enough to retain warmth. If necessary, frost cloth can be left on plants for an extended period of time without harming plants. It is light enough to allow sun to pass through the fabric and warm the ground, but will not trap heat.

Be cautious when using plastic coverings and make sure they are raised. Any leaves touching the plastic could sustain more cold damage as heat is transferred from the leaves to the plastic. Be sure plastic covers are removed during sunny days because they can readily absorb sunlight causing heat accumulation and damage to plants.

Blankets, sheets and towels can be used, but they can also transmit cold to plants if they become wet. They must be removed each morning as they do not allow light penetration or airflow and can cook the plants if it gets too hot.



After a Freeze

Walking on grass: Avoid walking on frozen grass as this will rupture frozen cells in the leaf blades, leaving brown footprints in the lawn after the sun dries things out. Mainscape's maintenance operations will be delayed as necessary to prevent damage from walking or equipment tires.

Pruning: Dead leaves may be removed as soon as they turn brown after a freeze or frost, however avoid cutting plants back severely until danger of frost has passed. Hard pruning promotes growth of lateral buds in the interior of the plant. This new tissue will be extremely susceptible to damage in the event of another frost or freeze.

Plant replacement: It is a natural impulse to want to replace plants that look dead with new ones right away, however most plants that look dead will begin to recover when the weather warms up. The extent of cold damage will not be evident until the spring growth flush.

Watering: Mainscape will resume regular irrigation scheduling next week when temperatures warm up. Adding extra water to promote growth and recovery is not recommended. During cool months water does not evaporate as quickly from soil and excess moisture may result in root rot and cause additional stress to plants.

Fertilization: No additional fertilizer is needed at this time for plants to promote recovery.

For reference, cold sensitive tropical plant species include, but are not limited to the following:

- Begonia
- Coleus
- Impatiens
- Salvia
- Crossandra
- Caricature plant
- Clerodendrum
- Variegated Tapioca
- Chenille Plant
- Copper leaf
- Croton
- Orchids
- Green Island Ficus
- Heliconai
- Ixora
- Diffenbachia
- Cocoplum
- Ginger

More information on cold protection of ornamental plants can be found at <http://edis.ifas.ufl.edu/mg025>