

The Scoop

on horticulture



Cold Weather Precautions

Freezing temperatures and below can cause serious injury to tropical and subtropical plants. In Florida, our landscapes are usually dominated by these types of plants, so a freeze event can certainly affect our maintenance and construction divisions. In order to avoid loss of material in the field, it is important to be prepared and know the proper actions before and after freezing temperatures occur.

BEFORE THE FREEZE:

If there is time to plan before a freeze, here are a few tips to help avoid serious cold damage to plants and turf.

- It all starts with plant site selection. Use microclimates to your advantage. For example, plant less hardy choices in areas with good soil and air drainage.
- A healthy plant is a strong plant. Plants and turf that have received proper fertilization will tolerate colder temperatures with less damage sustained. Remember to routinely check for disease or insect damage, as this can also weaken a plant.
- Water plants and turf well before a freeze. Moist soil will absorb more solar radiation than dry soil can, thereby protecting and insulating plants.
- Try to avoid late fall severe pruning. The flush of new

growth resulting and the exposed tissue is more susceptible to cold damage.

- Protection may be needed for more tender or high-dollar landscape plants. Small containers should be moved indoors. If possible, larger containers need to be mulched and grouped closer together. Coverings can help to protect from frost. Cloth material is preferable as plastic will need to be removed when the sun emerges.
- Palm trees may benefit from a preventative fungicidal spray containing copper before a freeze event.

AFTER THE FREEZE:

- Check water needs immediately, and apply water if needed.
- Severe pruning of dead stems should be avoided until new growth is seen. This guarantees that live material is not removed with the damaged material. If imperative, remove small amounts of dead leaves and stems as needed.
- When pruning is performed, cut back to healthy wood. In severe cases, this may closer to the ground. Make a forty five degree angled cut above the leaf axil where the new bud will emerge.

FROST-DAMAGED PLANT MATERIAL



Turf Mowed with Frost



Banana Fronds



Ginkgo Leaves



Magnolia



Coconut Palms

- Do not mow turf until frost is thawed. After that, mow as needed.
- Most plants and turf do not need additional fertilization after a freeze. Normal schedule should be sufficient. Over-seeded turf is the exception, as fertilizer is needed immediately to jump start ryegrass.
- To prevent bacteria and fungus in palms after a freeze, applications of a copper fungicide and Kocide are recommended.
- Damage to some plants may not be immediately identifiable. Palm trees are a good example, as the embryonic leaves can be damaged inside the bud. This damage will not be seen until fronds emerge – up to 1 year later. This should be explained to our clients.

References: UF IFAS Extension publications ENH-92, ENH 1, and ENH 80.

Florida Hazards Watch: Extreme Cold

Is Cold Weather a Threat in the Sunshine State?

YES. During the harsh winter of 1989-1990, 26 Floridians died of hypothermia. Because of normally mild temperatures, Florida homes often lack adequate heating and insulation and the Florida outdoor lifestyle leads to danger for those not prepared. In addition to the actual temperature, when the wind blows, a wind chill (the temperature that it feels like) is experienced on exposed skin. When freezing temperatures, or low wind chills are expected, the National Weather Service will issue warnings or advisories.

What is Wind Chill?

The wind chill is the cooling effect due to the combination of temperature and wind. It is expressed as the loss of body heat.



		Temperature (F)											
		Calm	40	35	30	25	20	15	10	5	0	-5	-10
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48		

5 P's Of Cold Weather Preparedness

1. Protect People
2. Protect Plants
3. Protect Pets
4. Protect Exposed Pipes
5. Practice Fire Safety

Florida Division of Emergency Management
www.FloridaDisaster.org