Florida is typically known for its warm winters. But this year’s winter was not typical and has sparked some concerns about damage to palm and turf grasses in our area. Drs. Monica Elliott, Tim Broschat, and Laure Trhenholm from the University of Florida/IFAS Extension provide the following tips on how to cope with damaged palms and turf.

Patience is essential with cold-damaged palms! If the palm leaf has any green tissue remaining, the leaf should not be removed until later in the year. Leaving damaged leaves on the palm during the remainder of the winter may actually help the palm survive future cold events. Once the palm has produced substantial new growth (2 to 3 new leaves), damaged leaf tissue can then be removed.

All new leaves of a palm develop from the bud located in the crown of the plant. It is the bud that needs to be protected. Leaf bases naturally provide insulating protection to the bud. This natural protection is one reason not to over trim palms at any time of the year.

As warmer weather returns, primary or secondary plant pathogens often attack stressed plants through the cold damaged tissue. Copper fungicides are recommended as an attempt (not a guarantee) to protect the bud and developing leaves from diseases that may attack damaged leaf tissue. In most situations, it is the base of the spear leaf not yet emerged from the whorl of leaf bases that is damaged first, leading to a spear rot, which may then lead to a bud rot. The goal of a copper fungicide is to prevent this spear rot from developing into a bud rot that kills the bud, and then the palm.

Copper fungicides are recommended over all other group of fungicides because they have broad activity against both bacteria and fungi. No other fungicides have this broad spectrum of activity. You must have complete coverage of the target tissue to be effective – in this case, the base of the spear leaf and the bud. This is more difficult to accomplish in some palm species than others, particularly those with crown shafts, because the leaf bases tightly surround the emerging spear leaf, preventing movement of a fungicide into the bud region.

If the spear leaf does rot and can be easily pulled from the bud, it should be removed immediately, followed by a copper fungicide spray or drench of the bud region, which is now exposed.

You will not know if the palm has survived the cold until new growth emerges, which may be 4 to 7 months later. So be patience! This happened after the winter of ‘89-90. I was asked to look at a large planting of palms. The new growth may be severely malformed or damaged, but the emergence of any living leaf tissue is a sign the palm is alive. Subsequence leaves will gradually improve in quality, but it may take as long as a year before normal leaves emerge.
Warm-season turfgrasses such as centipede and St Augustine grass, are often injured when temperatures drop below 20°F. Damage from freezes can be attributed to poor cultural practices which weaken grass and make it more susceptible to injury or death from low temperatures. Damage may also result from walking on frozen turf.

Within the warm-season grasses, the most cold-hardy species is zoysiagrass. Bermudagrass is next followed by bahiagrass, centipedegrass, and St. Augustinegrass. Centipedegrass cultivars 'Oklawn,' 'Tifblair,' and especially 'TennTurf' have good cold tolerance. St. Augustinegrasses cultivars such as 'Raleigh,' 'Seville,' and 'Jade' generally exhibit the best cold tolerance, while 'Floratam,' 'Floralawn,' and 'Floratine' are more susceptible to cold temperatures.

To see if your lawn has been damaged, take several 4 to 5 inch diameter plugs from suspected areas and place them in a warm area for regrowth. Check the plugs for 30 days or until growth resumes. If good regrowth occurs, then little damage has occurred. If regrowth is absent or sporadic, then some degree of damage has occurred.

To help prevent damage from cold temperatures follow these cultural practices: 1) Don’t apply fertilizer after mid September. Late fertilization promotes shoot growth which depletes carbohydrate reserves and produces new, tender shoots. The new growth is not as tolerant of cold temperatures. 2) Apply ½ to 1 lb. per 1000 sq ft of Potassium in the fall to promote cold tolerance and promote earlier spring greenup of grass. 3) Increase mowing height. This will produce a deeper root system and create a warmer microenvironment due to extra canopy cover provided by longer leaf tissue. 4) Watering the lawn correctly will reduce stress. As the grass goes dormant, less water is needed.