

# LESSONS FROM THE BIG FREEZE

By Dr. Michael Womack

South Texas Botanical Gardens & Nature Center Executive Director

Weekly column, **Sunday, February 21, 2021**, in the *Corpus Christi Caller-Times*

(CORPUS CHRISTI) --The 2021 freeze is one to remember for years! Temperatures have not dipped that low, reaching the teens for many areas since 1989, and before that in 1983. Long-term cold definitely has taken its toll on landscapes. Plants that normally can take some freezing weather are showing signs of damage.

My best advice is to be patient. Some plants look like they have frozen completely to the ground. But before you dig them out, I encourage you to be patient! History has shown that plants with severe freeze damage may survive, if given time. In 1989, some tropicals like large split-leaf philodendrons did not sprout back out until late May or early summer. Even established hibiscus that froze did not re-sprout until late spring, long after their normal spring growth spurt.

Remember, the plants you've had in the landscape for several years are established! They have an expansive root system which will help them regrow and survive the summer. Digging up plants that are alive and healthy near the ground too soon, and replacing with new, starts the root system establishment process over.

**PALMS** are a concern, with lots of visible damage to select species. The beautiful, more tropical forms were hardest-hit. We can grow foxtail palms (*Wodyetia bifurcata*), pygmy date palm (*Phoenix roebelenii*) and Cuban royal palms (*Roystonea regia*), but they have brown fronds now hanging flat against the trunk. Even queen palms (*Syagrus romanzoffiana*) and Mexican fan palms (*Washingtonia robusta*) are damaged. Many only have a few leaves that remain, pointing to the sky.

While many standard landscape plants re-sprout quickly, palms are much slower to start re-growing. The key to the palm is the crown, the growing point near the top of the trunk. While most plants have visible buds, the bud of the palm is down in the center of the new leaves and is difficult to see in tall forms. Some palms that appeared to be dead in 1989 did sprout out months after the freeze. However, if the top of the palm collapses, it means the crown is dead, and the palm will not recover.

**PALMS THAT DID BEST** in cold weather are the sabals, both Texas sabal palm (*Sabal mexicana*) and the Florida sabals (*Sabal palmetto*). Most of the large Canary Island date palms (*Phoenix canariensis*), true dates (*Phoenix dactylifera*) and Chinese Fan Palms (*Livistona chinensis*) also fared pretty well. A smaller palm almost untouched by cold is Mediterranean Fan Palm (*Chamaerops humilis*), an option instead of Pygmy Date Palms.

Why do we have so many of the freeze-susceptible palms? The main reason is they are beautiful and usually grow well in a normal year; however, now is when we suffer the consequences and need to decide whether to replant or change varieties!

Many of our standard **HARDY SHRUBS** do show some damage with leaves turning darker than normal. Most pittosporum, ligustrum and hawthorns survived, but may have brown leaves. Yaupon Holly (*Ilex vomitoria*) and Dwarf Yaupons (*Ilex Vomitoria 'nana'*) even kept their leaves. Wait to prune these shrubs back to allow the remaining leaves to supply carbohydrates for new growth. In a month or so, you can begin your normal pruning regimen.

**TROPICAL SHRUBS:** Many favorite tropical woody shrubs are not looking so well. Hibiscus (*Hibiscus rosa sinensis*), ixora (*Ixora sp.*), firebush (*Hamelia patens*), esperanza (*Tecoma stans*), and bougainvillea (*Bougainvillea glabra*) have shown a lot of freeze damage and will likely die back further this year than normal. Even hardy oleanders that easily withstand normal cold weather snaps have leaf damage.

For these woody shrubs, the key is cutting back to living tissue. On a woody stem, you can usually scratch the bark with your fingernail and see if it is green below. If you want to keep your shrubs tall, cut back to where you find the green stem. Cutting back lower may provide a chance to get additional branching near the bottom of tropicals that have been growing for years and have a lot of top branches but look sparse below.

**PERENNIALS** typically have more tender stems and are pruned back each year. Do the standard cutting back this year. However, it may take a little longer to see growth emerge. Again, be patient. It is better to let an established plant regrow than to start over.

**SUCCULENT & HERBACEOUS TROPICALS.** Plants that may have suffered the most are the succulents. Traditional succulents like kalanchoes, aloes, and many cacti froze due to high amounts of water stored in the stems and leaves. That also includes elephant ears, bananas, and papayas that have lots of water stored in stems and leaves. Remove the mush. Cut back to the solid portion of the stem to prevent bacterial rot from killing them further back. If you see a lot of rot, you also can dust the cuts with elemental sulfur which is a natural fungicide/bactericide. Again, be patient. I know of some tropicals, especially split-leaf philodendrons, feared dead in spring of 1989, sprouting in late summer. If stems are firm, leave them alone and see what happens. You might be surprised, and then you have a survivor story to share for years to come.

**OPPORTUNITIES.** If you had plants that were struggling or not performing up to par, maybe this is the chance for a fresh start by replacing them. If you don't like dealing with freeze damage and want to minimize the risk, look now at landscapes and take note of plants that did well, and use those species in future plantings. Learn from this experience.

**JOURNAL.** If you don't have a garden journal, start one now! If you have plants that did extremely well in the freeze, make notes for future. If you have some plants that melted quickly in the cold, it is also good to record that also. Also note the date of the freeze, the low temperature in your area, how long it stayed below freezing and types of precipitation. If you covered, also write that down to help you remember what materials worked, as well as those that didn't.

*(We are taking notes, too, between landscape maintenance tasks. We hope to run a list of "hardy survivors for your landscape" at a later date. Stay tuned.)*

**MaryJane Crull, Marketing Director**