Can Florida Afford Brown Palm Trees? Part 2
by Mary Jo Fahey
December 15, 2016

While it’s possible to learn the names of a few Palm Trees on your own, Dr. Monica L. Elliott and her husband Dr. Timothy K. Broschat who teach Palm School in Davie, will supply the scientific and common names of 36 species. Tim is also the co-author of Ornamental Palm Horticulture that is currently out-of-print, but a 2nd Edition is due to be released in the Spring of 2017. In Botany, all flowering plants fall into one of two categories: monocots and dicots that describe the number of embryonic leaves (see: photo). Examples of monocots include palms, corn, wheat, asparagus while hardwood trees such as Maple and Elm, as well as tomatoes, peppers, potatoes, cauliflower, broccoli, beans, and peas are dicots. Monica, who’s specialty is monocots, calls Palm Trees “corn plants on steroids.”

Signs Your Palm Tree is Healthy
Palm Trees have a history that is almost as old as the planet. They are members of the Arecaceae family that archaeologists have found in fossil records approximately eighty million year-old. Modern palms are vulnerable to human activity. As a result, it is important to learn danger signs. For example, a young, unopened leaf, called the spear leaf, should be visible above the crown. A bud that is discolored or wilted is a sign of “bud rot” caused by a pathogen.

A palm’s canopy refers to leaves, branches and stems above the ground and a healthy tree will have branches that form a 360 circle above the trunk. Tim has documented the number of branches produced by various palm species each year. For example, a health Coconut Palm can have as many as 26 branches. This topic is part of a presentation called “Diagnosing Palm Physiological Problems” and it is a very important part of the Palm Management Workshop.

Holiday lights should never be hung on palm trunks because staples and nails form wounds that do not heal. Palm trunks look like wood, but they are actually hard tissue formed from fibrous leaf stalks. Unlike dicot trees that build their trunks outward enclosing a wound, a monocot has no secondary woody growth that hardens into wood.

Planting and Transplanting
One of the most common mistakes made by new palm owners is planting too deep. Tim has done in-depth research on root ball size requirements for various species and found that most palms need a radius of 8 to 24 inches larger than the trunk. While some Palms seem to thrive along city streets paved with concrete, they really need space. Surprisingly, Palms can do quite well in pots for up to 10 years. However, when they are planted in a landscape, Palm roots can span 50 feet around the trunk. This part of the Palm Management Workshop will be particularly valuable for landscape architects, groundskeepers and Department of Transportation teams who manage Palm Trees.

Optional Sidebar: Definitions of Palm Tree Anatomy
Canopy or Crown - The outer and upper layer of leaves of an individual Palm Tree.

Crownshaft - A smooth cylinder formed on certain species of Palms above the trunk and beneath the crown.

Necrotic Tissue - Dead tissue that is usually brown in color.
Parenchyma - Plant tissue that is composed of unspecialized cells.

Petiole - Stalk at the base of the leaf blades.

Spear Leaf - A conical leaf that emerges from the growth portion or bud of the tree.

Photos

Filename: monocot_dicot_public_domain_image.JPG
Caption: Leaves that form within seeds are embryonic first leaves that define whether a flowering plant is classified as a monocot or dicot. Those with one are called monocots and those with two are called dicots.

Filename: palm_school_tim_1.JPG
Caption: Tim standing in front of a 5 year-old Palm Tree that has never thrived due to a rare phosphorus deficiency in soil that causes stunted growth.

Filename: palm_school_monica_5.JPG
Caption: Monica showing class members a Palm with exposed thread-like vascular tissue.

Filename: palm_school_monica_4.JPG
Caption: Monica showing class members a Syagrus romanzoffiana or Queen Palm that died of malnutrition.