

FALL COLORS FLORIDA

\$4.95

DEC/JAN
2009

Florida Gardening

Florida's Own Home Gardening Magazine

MEADOW GARDENING

TROPICAL BEANS

HERBAL LANDSCAPES



Florida's Fitful Fall

by Frederick B. Essig

For most people in Florida, "fall color" means whatever flowers typically bloom between September and December. It differs only in taxonomic detail from spring, summer and even winter color. Some tropicals, like bougainvillea and hibiscus, pump out their colorful displays year-round, unless temporarily set back by cold. Others, like poinsettia and chrysanthemum, are true fall-only bloomers, whose reproductive frenzies are triggered by longer nights. For many Floridians, this flower-defined seasonality is just fine and dandy, thank you. We're not really interested in winter, or in a mass falling of leaves that reminds us it's coming.

In our tropical escapism, however, we miss out on one of nature's grandest treats: the glorious reds and yellows that paint the forested hillsides from Georgia to New Hampshire in the fall.



photo by Frederick B. Essig

Out native turkey oak (Quercus laevis) has the potential for nice fall color.

Setting aside the chronic shortage of hillsides in Florida, why don't we have real fall colors here - the dramatic change from green to vivid color as leaves prepare to drop off the trees?

Actually, we do. They're just too sporadic and scattered to notice. We have plenty of trees capable of giving brilliant fall displays, but we're generally short on the other essential ingredient - the very thing we fear the most in Florida: freezing temperatures. Oh, we get them occasionally, and we curse them for damaging citrus, tomato and strawberry crops, and for turning those ripening papayas we've been wait-

ing on for 6 months into mush. But the frosts have to come at just the right time, generally mid to late fall, to trigger the color change. The cold has to sneak up and hit the trees suddenly, while they are still happily photosynthesizing. It doesn't work if the weather gradually gets cold and the first frost doesn't come until late January. By that time, most of the deciduous leaves have already shut down, turned brown and/or fallen off.

An early frost, however, triggers a chain of events in which the plants dismantle their bright green chlorophyll molecules in order to retrieve valuable minerals, such as manganese. That leaves behind the red and yellow carotenoids that have nothing worth retrieving, and which are usually hidden by the brilliance of chlorophyll. Carotenoids ("carot" - as in carrots, which have some of the same pigments) are accessory light-absorbing pigments that pass

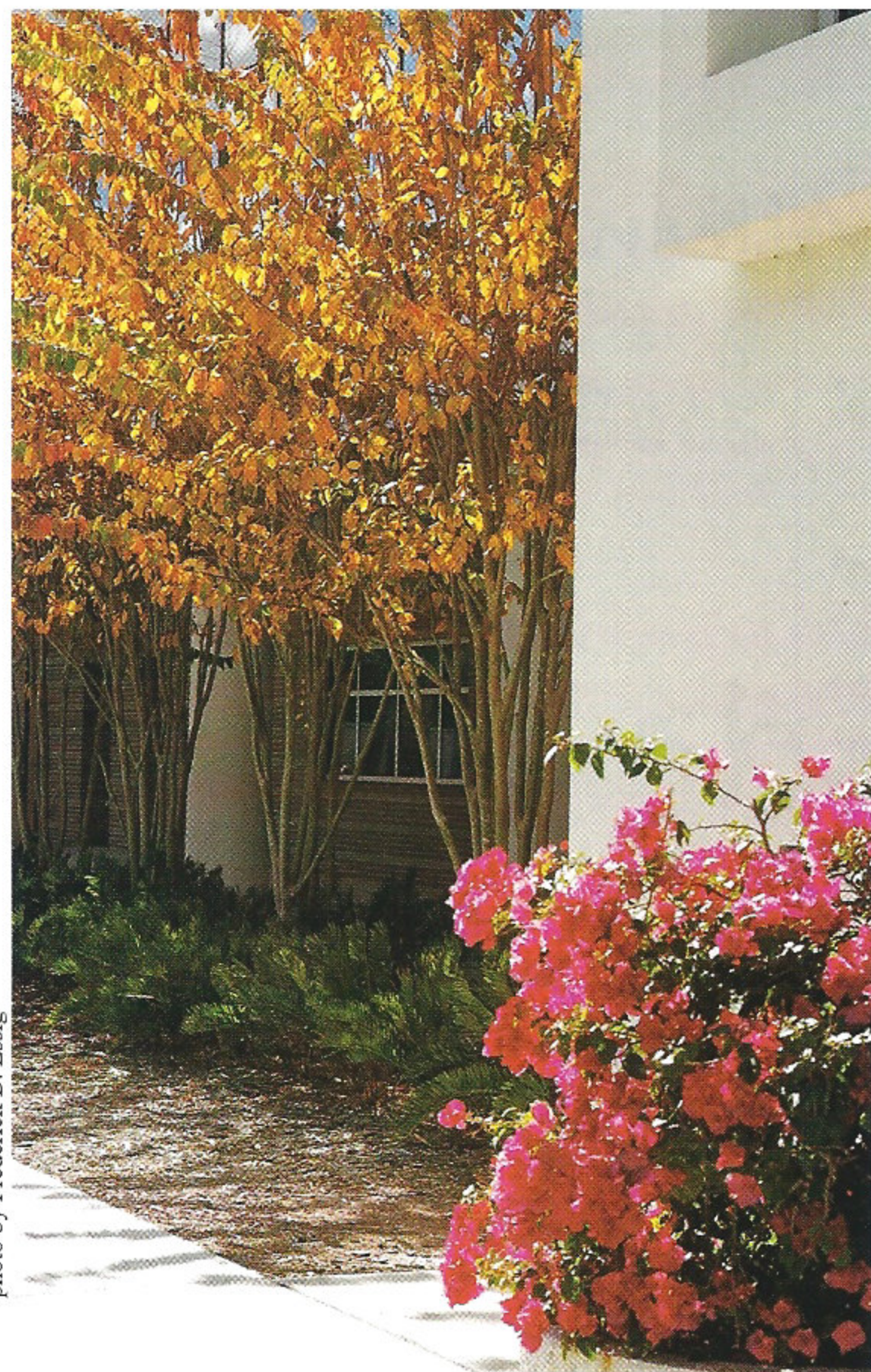


photo by Frederick B. Essig

During autumn, Florida can be a mix of tropical flowers and colorful leaves.

absorbed energy on to the chlorophyll molecules, which then convert it to chemical energy that the plants will ultimately use to make sugar. (It's more complicated than that, but we'll leave the details for some other time!) Up north, the first frosts come in the fall and set the process in motion, but in most of Florida they come too late. The Panhandle, though, gets some very nice fall color displays.

As I was about to leave the USF campus one day after a rare November cold snap in 2006, I passed by the southwestern student housing complex and noticed a planting of ash trees (genus *Fraxinus*) that had turned a brilliant New Hampshire shade of yellow. I was inspired to begin looking around to see what else I could find.

There is our native red maple, of course, which usually



photo by Frederick B. Essig

Red maple (Acer rubrum) can be as red in Florida as it is in any of its range.

dribbles its leaves away over several months. This species occurs from New England to Florida, and appears to be generally unimpressed by what passes for a cold spell in Florida. I've never seen an entire tree turn red at one time, but more exposed branches do change dramatically if hit by a sufficient shot of cold air in the fall. Our native turkey oak is another deciduous tree that can potentially turn a nice orange, but it too usually turns a few leaves at a time over several months, or just goes straight to brown. Virginia creeper vines can also turn a bright red under the right conditions.

One of the flashiest fall plants, potentially at least, is the crape myrtle, a small, non-native tree that is

widely planted in most parts of the state for its brilliant floral displays in summer. It can provide us with another treat if hit by a frost in the fall, as its leaves turn reddish, then bright yellow.

So if you really hanker after a New England fall, you could fill your backyard with ash, red maple, crape myrtle, bald and pond cypress (rusty red-brown), pignut hickory (gold) and sweet gum (orange-red). Odds are you'll have a decent showing at least once every 5 years or so.

Of course, if you want to take matters into your own hands, get a big cryogenic freeze canister and give your yard the once-over one evening in November. I'd be surprised if they haven't already thought of that over at Disney World. It would give the grounds of their Canadian pavilion a real authentic touch!

In our last issue, Dr. Essig wrote about growing glorious morning glories. He is an Associate Professor of Biology at USF in Tampa.



photo by Frederick B. Essig

Crape myrtle leaves go through shades of red and yellow before they drop.