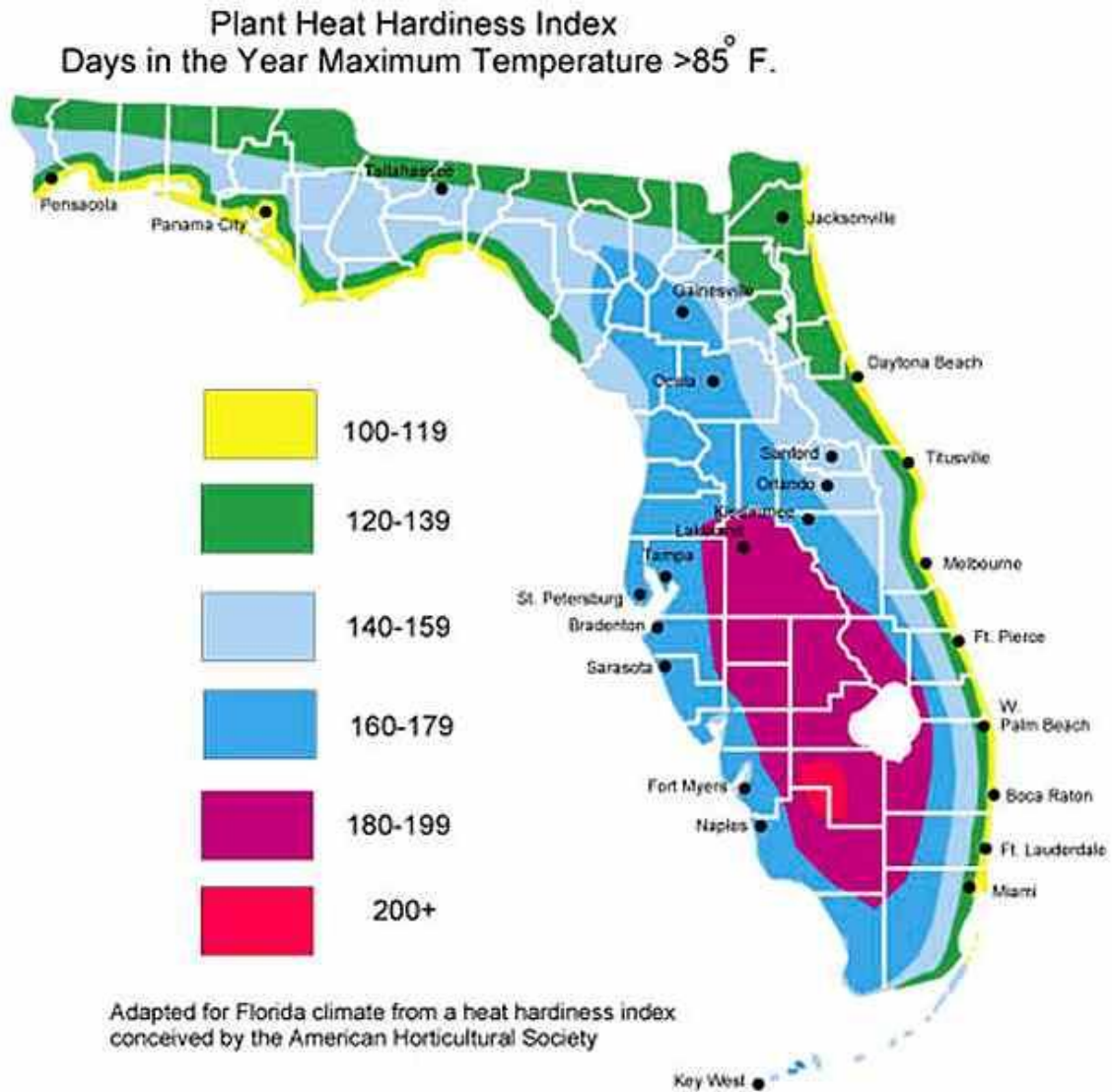


Climate in LaBelle

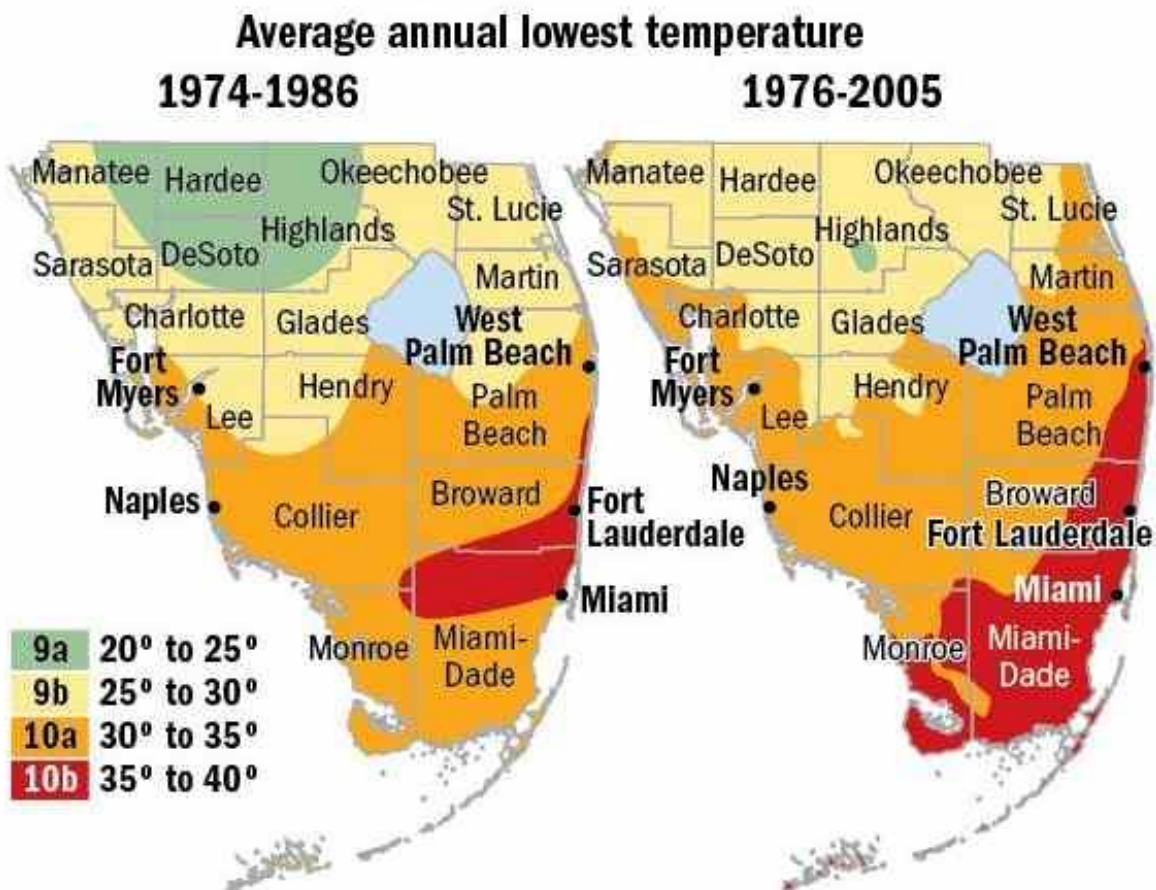
The climate in the area from Labelle extending down south past Immokalee is unique to the entire State of Florida. This is the only area of Florida which has over 200 days of temperatures over 85 degrees, making it the hottest area in Florida in the spring, summer and fall.



Yet in the winter this region between LaBelle and Immokalee sits at the end of a portion of the southernmost portion of zone 9B where the temperature can get into the 25 to 30 degree range of freezing in the winter. Occasionally this freeze will extend for days and kill all the exotic African fish in the local waterways, creating quite a smell. Both Fort Myers and Clewiston are firmly zone 10a. Note that global warming has seemed to have an effect on some zones in South Florida.

Warm and plant-friendly

A new map of plant hardiness zones has replaced the one from 1990. All of South Florida is now in the warmer zones of 10a and 10b. The Treasure Coast also has warmed up, with a 10a zone along the coast.



Source: U.S. Department of Agriculture, Agricultural Research Service

BRENNAN KING/Staff Artist

For perennial ornamental plants this difference in summer and winter temperatures in LaBelle means that ideally a plant should be rated both for zone 9 and zone 10 in order to survive well. Unfortunately as you look through plant books you won't find many plants rated for both zone 9 and zone 10. Zone 9 is the southernmost boundary for a lot of plants which require a winter dormancy to survive or that can't take full tropical sun and humidity. And zone 10 is the northernmost boundary of many tropical plants that have no dormancy and just can't take low temperatures in the winter.

LaBelle is right on that boundary, both too hot (or not cold enough) for many zone 9 plants and too cold for many zone 10 plants. I've tried growing every type of dogwood known including Florida dogwood but dogwoods can't take our heat and humidity and they die (probably from heat and humidity induced anthracnose). They will survive 100 miles north of here out of the LaBelle summer heat. All hostas die in LaBelle from lack of winter dormancy.

Several types of viburnums rated for zone 9 die in our summer heat and humidity. Hydrangeas supposedly live in zone 9 yet I know of only one healthy hydrangea in LaBelle, growing in full shade near some cooling creek water. In actuality zone 9 is divided by some books into a northern zone 9a and a southern zone 9b. LaBelle is firmly in zone 9b. Hydrangeas and dogwoods grow in zone 9a but are really touch and go in zone 9b. The heat normally kills hydrangeas and dogwoods. Note evergreen Chinese hydrangeas (*Dichroa febrifuga*) do grow in zone 9b and do survive in LaBelle. They are just never sold in nurseries and have to be obtained over the internet. Just like normal hydrangeas, evergreen hydrangeas have pink flowers in alkaline soil and deep blue flowers in acid soil.

Easter Lilies will grow from LaBelle North while they die out slowly in Fort Myers and die rapidly in Miami. Easter Lilies need lower winter temperatures to induce dormancy. High humidity will kill the succulent Aeoniums, Echeverias and Sempervivums (hens and chicken plant).

"Microclimates" are extremely important in LaBelle. Zone 9 perennial ornamental plants which cannot survive in zone 10 will often die in a position where they are exposed to full sun, the full sun and humidity of our summers being just too much for them. Beautyberry is one such plant. But give Beautyberry shade from the hot afternoon sun and it will thrive. On the other hand many zone 10 plants which shouldn't survive in zone 9b survive and even thrive in LaBelle, depending on several "microclimate" factors;

1. If the plant is in a sheltered location in a neighborhood with a lot of large live oaks the wind can't get to it during freezes. Plants often die during freezes because the wind desiccates the water from their tissues and the plants are unable to replenish the water from the ground. So zone 10 plants can survive if given this sheltering grove of trees. There is one very healthy Frangipani (*Plumeria*) plant in LaBelle which is definitely a zone 10 plant and is doing well because it is in a neighborhood full of live oaks.

2. The proximity to the river is important. The river warms plants up to half a mile away. I live several hundred yards from the river in a grove of large live oaks and have large copperleaf plants (*Acalypha wilkesiana*) which probably would be severely damaged if not killed each winter if it were not for the river and the trees. Canals and ponds can serve the same purpose.
3. Trees directly overhead and around the plant serve as large heat sinks and can keep the temperature up just the few degrees necessary to keep the plants from damage. They also keep the plants from radiating and losing heat to an open night sky. I have many zone 10 plants surviving well in the shade of large oak trees.
4. The morning sun can desiccate and kill a frozen plant faster than anything else. Trees, shrubs and the home located to the east of frost sensitive plants can protect the plants from the morning sun during frosts. Oftentimes it is desiccation that actually kills the leaves or branches. It is often not the freeze per se that kills. This is because the water is frozen in the phloem tubes of the plant and can't replenish fluids in the leaves lost to the radiant heat of the sun. The leaves literally die because they dry out, not because they freeze.

I have one area of my yard which is exposed to the full morning sun and I cannot grow crotons there. They die in the winter because of sun/frost desiccation, especially the black varieties (the yellow varieties survive but barely). But crotons with no eastern exposure survive and thrive in my yard. Afternoon sun is not a problem since the temperature is generally well above freezing by the time it arrives.

5. The home is a large heat radiating sink which can protect foundation plantings from winter damage. But always keep foundation planting at least two feet from the house so that insect barriers can be applied and so that termite tunnels can be detected.
6. Plants which grow close to the ground, such as bromeliads, tend to benefit from the heat radiated from the ground and can be grown in LaBelle even though they are actually frost sensitive. Occasionally you will see the tops of tall bromeliads get hit by a frost.

These particular "microclimates" are important for growing perennial ornamental shrubs and trees in LaBelle. If you are on a treeless exposed lot in Port LaBelle well away from the river don't try to grow zone 10 plants such as copperleaf. And also be careful about zone 9 plants in full sun, they might not survive the heat of LaBelle's full sun. And don't suspend your bromeliads in pots six feet off the ground.

Also be aware of just how "micro" or small these microclimates zones can be. There is one house I know of whose front yard is high above the river and relatively open to the

night sky. It gets hit regularly with frosts. The back yard is much lower, closer to the river, and covered in live oaks. It almost never sees a frost. I've also seen foundation plantings where leaves inside four feet from the house were fine after a frost while leaves five feet and beyond from the house were dead.

Also be aware that there are some plants which the books say are zone 10 plants, such as such as the Caricature Plant (*Graptophyllum pictum*, a variegated purple shrub much like a large Coleus) aren't going to make it in Zone 10a let alone 9b. I planted ten Caricature Plants and all have died, even in the most sheltered of locations. Caricature Plant only grows in Miami's zone 10b, not Fort Meyers' 10a and certainly not in LaBelle's 9b. But most books don't break out the zones into "a" and "b" so it's difficult to know that important detail.

One book breaks it out by "a" and "b" zones, the "Reference Guide to Florida Landscape Plants", which I'm finding to be an invaluable resource because it literally lists every plant you could possibly think about growing in LaBelle, with the zones and the type of soil it requires. It lists the caricature plant correctly as 10b through 11 but then lists Princess Flower (*Tibouchina urvilleana*), as 9b through 10b. Which is somewhat confusing. I've killed three Princess Flowers trying to grow them in the most sheltered positions I can find. They just won't make it in my yard.

Another reference which lists zones by "a" and "b" is the University of Florida IFAS guide to landscape plants (link to "Landscape Plants" at the top of the labelgardenclub.org website). It lists hydrangea as 5b through 9a and correctly excludes LaBelle's zone 9b. It list *Tibouchina* as 10b through 11, excluding Fort Myers 10a quite correctly. It doesn't list caricature plant, *Graptophyllum*.

Southern Living Garden Book lists Princess Flower as "only tropical zone" i.e. where there is never a frost. And it lists zones 10-12 as the range for Princess Flower, which is more in line with my experience and IFAS. And it also notes that the plant likes acid soil and I have alkaline soil. A nurseryman in Fort Myers told me Princess Flower grows well in Miami, zone 10b, but doesn't grow well in Fort Myers, zone 10a. In any case it looks like a plant I'd better just not plant again for both climate and soil reasons. Three strikes and you're out.

Some people protect their plants during frosts with burlap, sheets and blankets. Don't use plastic, the sun will kill a plastic protected plant in short order. I've got too many plants to try and protect them, so those that aren't meant to make it don't make it. The only way I can grow Persian Shield and Perennial Sterile Coleus is by bringing in cuttings each winter and growing them on inside. Yet I have several varieties of orchids doing just fine in a sheltered location close to the house.

Be wary of dealers selling plants on street corners. Easily 30% of their plants won't make it in LaBelle, being zone 10b plants picked up from the huge wholesale nurseries in Homestead (I've repeatedly seen Caricature plants and Princess Flower at these corner nurseries). You won't see these plants in Ace, Home Depot or Lowes because

they don't grow well in Fort Myers or LaBelle. Note I have found the selection of plants in these three retail outlets to be "pretty well" suited for growing in LaBelle. By "pretty well" I have seen Hydrangeas at Lowes in Fort Myers and I don't think they grow well at all in Fort Myers, let alone LaBelle because they need cooler temperatures. And then both Lowes and Home Depot stock Persian Shield, which is dicey at best even in Fort Myers because it won't stand even 33 degrees of cold.

Look for plants which are growing well in your neighbors' yards or are growing well in businesses in downtown LaBelle. What is growing well at McDonalds in full sun open to the night sky or at the local Ophthalmologist's office?

Sometimes a variety of a plant will prove to be better than another variety for some situations. The delicate looking "Red Sister" Ti plant (*Cordyline terminalis*) with the pink tops is growing well in full sun at McDonalds. Yet another variety of Ti Plant, "Black Prince" with a solid maroon colored leaves, sunburned badly at my house and had to be moved into the shade. This is somewhat counterintuitive, maroon plants are supposed to be more sun resistant than pink plants but in this case it isn't so. Note that Ti plants look best when planted in masses of at least ten closely spaced plants. One pink leaf "Red Sister" planted alone looks garish and out of place in the landscape, especially when surrounded by a sea of green foliage plants.

Note that the IFAS shrub site ("Landscape Plant" link on the top of this website) lists Ti Plant (*Cordyline terminalis*, synonym *Cordyline fruticosa*) as being a zone 10b through zone 11. But the plant is common throughout LaBelle, zone 9b. I think what IFAS means is that Ti plant will have its leaves damaged by a hard frost. But the plant isn't killed, it comes back and has survived for many winters in many locations in LaBelle. The same thing is true for Copperleaf (*Acalypha wilkesiana*).

Many people want the allure of the old northern favorite plant, roses. The heat and humidity make the ideal environment for an army of insects, nematodes, molds and fungal infections. Plant roses only if you want a constant battle on your hands to keep them healthy. IFAS has several good sites on roses in Florida.

People often times ignore watering in the winter because they figure the plants all go dormant and don't need the water. This is "Yankee thinking". A tropical zone 10 plant will typically continue to grow all winter long and won't go dormant. Most tropical plants don't ever go dormant in their native environment. They need water all the time. Without water tropical zone 10 plants are especially vulnerable to winter frosts. The more water tropical plants get the less prone they are to damage from frosts.

I continue to irrigate twice a week all winter long. Our winters can be bone dry, especially as of late. Climate change seems to have made the "dry season" in Florida much dryer than it has historically been. Put lack of a tree canopy, full morning sun and no irrigation together with a freeze and most zone 10a plants won't make it. Indeed, a few zone 9b plants won't make it.

Don't assume a frost scorched limb is dead and trim it back. Wait till at least April for the branch to put out new leaves. Dead leaves does not mean a dead limb. Also don't assume that because a tree loses its leaves in winter it is dead. I have a beautiful variegated leaved Coral tree (*Erythrina orientalis* var. *variegata*) which is an IFAS 10a - 11 zone tropical tree but a Southern Gardening Book 9-12 zone tropical tree. It does lose all its leaves every winter. But it comes back strong in the spring without so much as a branch dying, so the Southern Garden Book is more accurate in its zone description for this particular tree. Indeed, some trees such as mulberry trees lose their leaves in both summer and winter, which is really confusing.

Plants native to this zone 9 area of Florida are always the best bet. Good examples can be found on this website under the topic "Bird Attracting Native Plants". Also take a book or a list with you to the native plant nurseries. You will need to know the hardiness zone of the plant. There are several books on native plants in the LaBelle Garden Club Library which can be used. Native plant zones can't be flexed like non-native tropical plants can sometimes be flexed. "Microclimate" use is not recommended with native plants. Microclimates exist naturally in the wild so if a native plant is not found in zone 9 as a native, it probably won't make it in LaBelle, even close to the river under a canopy of live oaks.

Many of the plants the native nurseries' stock are true zone 10 plants (for instance Gumbo Limbo, Red Stopper, White Stopper, Spanish Stopper, Locustberry, Snowberry, Cinnecord, etc.) and are very touch and go for LaBelle. Most nurseries don't have the zone listed for the plant. It needs to be native to zone 9 to be hardy in LaBelle. That's why it's best to do your research before going to the native plant nursery and know ahead of time which plants you want. Also remember nursery grown native plants need to be watered for the first two years after they are planted, their root systems need to become established just like any other nursery plant.

About every ten years LaBelle will get an extended freeze with winds. These "hard" freezes with accompanying wind will utterly destroy many plants, especially zone ten plants growing in sheltered "microclimate" conditions. If such a hard freeze is predicted, many plants will need protection by cloth or blankets (do not use plastic). Some people just allow the plants to freeze back to the ground and come back from the roots.

Also many plants have become "over-hybridized" and don't do well in LaBelle heat humidity and poor soil. I planted six flats of the rock solid dependent annual vinca (or periwinkle). The original plant comes up for many years (I have some of the old fashioned ones in my yard that must be twenty years old). My six flats were the new hybrid red form. They grew to about six inches of spindly growth then died. Many annuals such as marigolds, zinnias and petunias can only be started in the Fall and die when heat returns. Over hybridized plants include most roses, fancy hibiscus, vegetables, canna, and most caladiums. Many of these plants can be grown in good soil in containers or raised beds with lots of fertilizer

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