

Facts about Fire in the Native Landscape: Part III

Questions from FNPS members with answers by Andrea N. Christman, Ecologist with the Division of Forestry; Steven "Torch" Miller, Director, Division of Land Management, St. Johns River Water Management District; and Maria Minno, FNPS Communication Chair

NOTE: This is the final of a three-part series which began in the Winter 98-99 issue of *The Palmetto*, Volume 18, No. 4. As a further service to members, the 1999 FNPS Conference featured two half-day tracks on fire ecology and homeowner issues, including ten presentations and a panel session of experts.

QUESTION: Should we get rid of our pine trees, our palmettos, and our pine straw mulch? Are they really fire hazards?

CHRISTMAN: The use of native plants and xeriscaping are well recognized as valuable tools for water conservation and to prevent the spread of noxious, exotic ornamentals into our natural areas. When used widely, most native species are effective and safe components of a natural landscape. The Division of Forestry does have some recommendations for landscaping around homes in high fire-danger areas, as well as general recommendations for grounds-keeping practices to reduce wildfire threat to your house. Native plants are ideal components of Florida landscapes, especially when combined with a common-sense approach to landscaping and grounds-keeping. Contact your local Division of Forestry office for more information or copies of the brochures, "Woodland Home Fire Safety" or "Mobile Home Fire Safety," which outline some basic guidelines.

If concerns do exist, keep in mind that there are many beautiful native hardwood hammock (a non-fire adapted community) species which generally do not burn and are excellent for landscaping.

MILLER: Homes should have at least 30 feet of "defensible space" around them. Defensible space is an area free from a continuous expanse of flammable trees and shrubs. Defensible space allow firefighters an area to

work in the event of a wildfire and it protects the home from radiant heat given off by the burning vegetation. Palmettos and pine trees are very flammable even when green. They do not need to be excluded from the yard, but should not be allowed to form a continuous canopy. Individual palmettos should not be within ten feet of a home in an area with wildfire potential.

The potential fire risk is cumulative. Palmettos, pines, or pine straw on their own will not significantly contribute to increasing wildfire risk. But if you reduce defensible space, allow pine straw to accumulate on the roof from pine trees in the yard, have pine straw mulch against the house with a continuous expanse of palmettos in an area prone to wildfires, the house is vulnerable.

MINNO: This depends upon where you are. If you are in an urban area, these are probably not a concern. However, next to a natural area supporting a pyrogenic habitat such as scrub or flatwoods, it may increase the risk. Every home should have a buffer zone of non-pyrogenic vegetation or a clearing around it. Many native plants are non-pyrogenic, and can be mulched with wood chips or oak leaves which hold water and do not burn well.

QUESTION: Is it true that palmettos and cabbage palms explode in fires?

CHRISTMAN: No. The cabbage palm, *Sabal palmetto*, and the saw palmetto, *Serenoa repens*, are both species which when ignited in the right conditions, may burn with startling in-

tensity. This occurs due to the quantity of fuels (e.g., dead fronds and boots) which accumulate at the base of individual plants, the waxy coating of the foliage, and the oily condition of the plant tissue. These species both tend to grow in clumps, and when one plant ignites, generally the entire clump will ignite and create longer flame lengths and the appearance of a "burst" of flames. Though they don't "explode" in fires, neither of these species are good choices for planting adjacent to homes in the Wildland-Urban Interface. **MILLER:** Palmettos and cabbage palms contain natural chemicals that volatilize and burn readily. This makes them more flammable than live oak litter. They also help to spread fire by the fact that burning dead fronds frequently fly up in the smoke column and come down anywhere from a few yards to a mile away and can light new spot fires.

QUESTION: Some of the landscaping recommendations we're getting seem to run counter to what environmental organizations recommend. For example, instead of minimizing turf areas, now we're being told to have lots of heavily watered sod. Also, we're being told to get rid of brush piles and the shrubs under our trees.

CHRISTMAN: The Division of Forestry has prepared some guidelines for homes in the Wildland-Urban Interface. The term *Wildland-Urban Interface* describes areas where homes meet the wildlands – homes in a woodland setting, surrounded by flammable forest fuels. In Florida, this is commonly seen

in partially developed subdivisions located in flatwoods or scrub communities. The coastal and inland scrub and flatwoods communities are among the most volatile of Florida's natural communities. Fires that occur in these communities generally consume all burnable material in their path. The adapted species have actually evolved to depend upon fire for successful regeneration. Unfortunately, humans and human structures have not adapted or evolved as well.

The Division of Forestry, in coordination with state firefighters' associations, publishes a "Woodland Homes Fire Safety" brochure outlining guidelines on using landscaping to create a fire-break. The recommendations include: (1) creating a 30 foot buffer zone around your house by replacing forest underbrush with short grasses or native plants, or a grass lawn; (2) thinning trees around the house to create a break between the crowns of yard trees and the surrounding forest; (3) locating flowers, hedges, and other plants away from the home; and (4) removing one "step" in the ladder by pruning low branches, locating short plants under mature trees, and locating medium-height trees away from taller trees. Copies of this and other brochures are available through

your local Division of Forestry office.

MINNO: Relative to natural vegetation that has not been managed properly, watered sod is less pyrogenic. However, usually at least half of the total amount of water used by homeowners goes to water lawns, creating a water crisis which takes on serious significance during a drought. Unnecessary water consumption for lawns and plants that require a lot of watering contributes to the lowering of the water table, which increases the probability of and severity of fires. Properly managed natural vegetation is both aesthetically and environmentally superior to traditional landscaping, and is no more dangerous to the homeowner. In a hazardous area, remember, a buffer zone should be kept around structures.

QUESTION: Is my meadow garden a fire hazard? What about these tall grasses I planted?

CHRISTMAN: In general, if an adequate buffer exists between your house and your yard plantings, a meadow garden with tall grasses should not act as a significant fire hazard. Remember that in times of severe drought, with a high occurrence of wildfire such as we saw in the summer of 1998, most native groundcover plants can be


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mowed with a lawnmower to remove any immediate potential threat without destroying your native garden.

MILLER: It depends on what plants grow in it. Some grasses like sand cordgrass, wiregrass, and chalky bluestem are very flammable and can contribute to the spread of wildfire.

MINNO: Grass doesn't burn with the same ferocity that palmettos and some other shrubs do — you can practically stomp out a grass fire. Plants that would make up a good buffer around structures might be live oaks, laurel oaks, hollies, and red maples. 

ED: Thank you Andrea, "Torch," and Maria for giving us good answers to give our members as well as the general public. Let's keep natives in the landscape and be safe at the same time!