

Landscape Mulches: What Are The Choices in Florida?¹

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Mulches are an increasingly important part of the Florida urban landscape. A mulched garden has better water and soil conservation. Mulches are also known to buffer soil temperature and prevent water loss from evaporation. Weed control either by inhibiting weed germination or suppressing weed growth is another benefit of mulches. These advantages and the increasing interest in mulching have resulted in a wide array of mulches available for the gardener and landscaper. Questions often arise about which mulch is best.

Mulches have variable origins and compositions. The best way to know about specific mulch characteristics is by asking the mulch manufacturer questions: Where was the mulch harvested? Is it a waste or recycled product? What species does it contain? Is it free of weed seed? Has it been dyed?

This publication presents the major organic landscape mulches commonly used in Florida. About 60% of Florida's landscape mulch sold at home and garden centers is cypress and 20% is pine-bark mulch (Stake 2000). Pine-straw, Eucalyptus, and Melaleuca mulches each make up about 1% of the sales with the remaining 17% called "red mulch" composed of either mixed hardwoods or recycled wood waste (and often dyed a red color) (Stake 2000).

Pine-bark

Pine-bark is produced as a by-product or waste product of the forest industry. When producing paper or lumber, the bark of pine trees (mostly *Pinus elliottii* [Engelm.] and *Pinus taeda* [L.]) must be peeled from the wood. This bark (including a small amount of wood) is then chopped into nuggets of various sizes or grades and may be sold in bags or bulk to the landscaper.

Pine-straw

Pines are often grown in plantations for the production of wood products or paper. If weeds are controlled, pine needles on the forest floor of these plantations may be raked, baled and sold as pine straw to gardening centers and landscapers (Figure 1). A major concern for pine straw production is the removal of nutrients and organic matter from the soil in these plantations. A study at the University of Florida showed that up to 50 lbs per acre of nitrogen and 6 lbs per acre of phosphorus are removed each year. We recommend that plantations are only raked 4 to 5 times in a 20-year rotation, and fertilizers are added to replace the removed nutrients.

Cypress

Cypress mulch is produced from two species of cypress trees (baldcypress, *Taxodium distichum* [L.] Rich. and pondcypress, *Taxodium distichum* var. *nutans* [Ait.] Sweet). Cypress mulch is composed of both wood and bark. These trees grow in the 3.6 million acres of oak-gum-cypress

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wetlands in Florida (Figure 2). Cypress trees are also harvested for lumber used in fencing, siding, flooring, paneling, furniture and several other products. Mulch is often produced from the waste wood in the production of these products; however, recently mulch may also be produced from whole trees.



Figure 1. Pine needles on the forest floor are raked, baled and sold as pine-straw for landscaping.



Figure 3. Eucalyptus plantations in south and central Florida produce mulch.

Credits: Photo by Don Rockwood.



Figure 2. Cypress mulch is produced from cypress wetlands.

Credits: Photo by Larry Korhnak.

Eucalyptus

Eucalyptus is a genus of trees from Australia and a few small Pacific islands. Many species of Eucalyptus are grown throughout the world for forest products. Plantations of *Eucalyptus grandis* (W. Hill ex Maiden) are grown in central and south Florida specifically for mulch production (Figure 3). Whole trees (bark and wood) are chopped into chips or shredded into mulch, which is then bagged or sold in bulk.

Melaleuca

Melaleuca (*Melaleuca quinquenervia* [Cav.] S.T. Blake) is a tree from Australia, which was introduced into Florida as a windbreak, soil stabilizer, and landscape tree. Because of its prolific flowering and easy natural regeneration it has invaded south Florida's wetland ecosystems replacing native species. Research to find uses and controls for this problem species are underway. One recent new use is landscape mulch (Figure 4). Whole trees (bark and wood) are harvested, chipped or shredded, composted (or heated) to kill seeds, and the mulch is bagged or sold in bulk.

Mixed Hardwood

Bottomland or upland hardwood forests may be harvested for paper or wood production; mulch is, in this case, produced from scraps or tree stems that are too small. Other mixed hardwood forests may be harvested specifically for mulch. These mixed species (bark and wood) are then ground or shredded, sometimes dyed, and bagged for mulch.

Yard waste

Yards in Florida contain grass, shrubs, trees and other plants which themselves make excellent mulches. The simplest mulch is to rake freshly fallen leaves or grass clippings directly into a garden. Larger materials can be composted

or chipped to produce mulch. Because these materials all contain nutrients and organic material produced by your yard, it's very beneficial to use and recycle them in your landscape.



Figure 4. Melaleuca, an exotic tree invading south Florida's ecosystems, is harvested and ground into mulch. Credits: Photo by Jake Huffman.

Utility Mulch

Utility companies are faced with the challenge of keeping their lines clear of vegetation. The countrywide 3 billion dollar line clearing business produces a large quantity of pruned tree and shrub limbs and leaves which are chipped into mulch (Figure 5). The plant species vary and together make up a mixed species mulch. Gainesville regional utility mulch, for example, contains leaves and branches from oaks (*Quercus laurifolia* Michx., *Quercus rubra* [L.], and *Quercus virginiana* Mill.) and cherry (*Prunus serotina* Ehrh.), with a small amount of cedar and pine (*Juniperus silicicola* [Small] Bailey) and southern pines (*Pinus spp.*). The biggest concern about fresh utility mulch is weed seeds, which may be eliminated with composting.

Recycled Wood Waste

Several companies recycle waste wood that would otherwise go to landfills. Most of the wood is pine, fir, spruce or another softwood; it must be untreated with chemical preservatives. The wood products are ground or shredded into mulch, and metal such as nails is removed. Sometimes the mulch is dyed to attractive colors such as reds, blacks, browns or even unusual colors such as blue or purple.



Figure 5. Tree limbs and leaves pruned by utility companies are ground into landscape mulch.

Conclusions and Recommendations

A wide variety of tree species and parts (leaves, wood, stems, bark) are used to produce landscape mulch. Many factors need to be considered when choosing a mulch such as its origin, species composition, durability, and attractiveness. Questions about the contents and origin of mulches can be asked of the mulch manufacturers. Integrating all these mulch attributes will result in a more beneficial, long-lasting and attractive landscape.

For more information on mulches, see these other mulch articles on EDIS website at <http://edis.ifas.ufl.edu>:

FOR69 Landscape mulches: How quickly do they settle?

FOR68 Landscape mulches: How long do they retain their color?

FOR79 Landscape mulches: Will subterranean termites consume them?

References

Stake, Loren. Personal Communication. 2000. A mulch survey of home and garden centers by Florida Garden Products, Inc. Oviedo, FL 32762.