Much Ado about Mulches

(Author's Note: This is the tenth in a series of articles by members of the City of Sanibel Vegetation Committee dealing with vegetative matters of concern to island residents. For more information regarding Sanibel's unique plants and wildlife contact the City of Sanibel's Natural Resource Department at 239 472-3700. *http://www.mysanibel.com/Departments/Natural-Resources)*

Why mulch?

Mulches are not a new concept. For as long as trees have grown in forests, leaves and needles fall to the ground, mat together, and form a natural protective layer over the soil. Natural areas provide their own renewable mulch supply; however, maintained landscaped areas should be mulched to provide the following benefits:

- Moisture Absorption and Retention
- Surface Insulation
- Reduced soil erosion
- Soil Enrichment
- Weed Prevention and Control
- Landscape Beautification
- Decreased Toxic Lawn Runoff

Photo Credit: Jason Cull, Environmental Specialist

Moisture Absorption and Retention

In Southwest Florida it's all about WATER! It's estimated that nationwide 60% of our precious drinking water is used for irrigation. Mulching your plants will help keep the ground around the plants moist between rain events. When compared to bare soils, mulched areas can hold almost twice the amount of soil moisture.

Surface Insulation

Organic mulches help regulate the temperature of soil around plant roots. In the summer, organic mulches cool the roots; in the winter, mulch keeps the roots warm.

Reduced Soil Erosion

When water droplets land on bare soil, the impact causes soil particles to fly in all directions, resulting in soil compaction and slow water infiltration. Mulches break the

impact of the droplets, reducing soil erosion and compaction and increasing the absorption and retention of water in the soil.

Soil Enrichment

Organic mulches improve soil structure in several ways. As organic mulches decompose, they provide organic matter and nutrients that prompt soil particles to aggregate. Large aggregates increase aeration and improve moisture conditions in the soil. More moisture in the soil encourages additional root/plant growth further enhancing soil structure.

Weed Prevention and Control

Mulch is a natural weed germination blocker. Weeds need light to sprout and develop. A layer of mulch will allow less light to reach the soil, which will reduce the amount of weeds that you need to pull out.

Landscape Beautification

Less sod and more trees, shrubs and groundcovers creates a softer landscape. Property values have been shown to increase 15-20% with attractive plantings.

Photo Credit: Ruth Brooks, Vegetation Committee Member

Decreased Toxic Yard Runoff

Using groundcovers, shrubs and trees with mulched areas will reduce the need for lawns/sod. The need to use fertilizers, insecticides and herbicides will decrease as sod is reduced. These chemicals end up polluting our waterways and contributing to health risks for us, as well as, our natural environment.

Which Mulch Should I Use?

It is important to evaluate and choose the right mulch for your yard and communicate that choice to your landscaper.

Organic mulches made of natural materials that break down over time and provide nutrients to the soil are the best choices.

Please do **NOT** use Cypress Mulch. Cypress trees take hundreds of years to establish and provide many benefits that indirectly and directly affect our surrounding environment. Currently, cypress trees are being harvested from Florida's wetlands at a rate faster than they can grow. If this unsustainable practice continues, we will soon deplete this irreplaceable natural resource.

Other options:

- Melaleuca
- Eucalyptus
- Pine Straw
- Pine Bark
- Yard Waste
- Compost
- Mixed Hardwood

Photo Credit: Jason Cull, Environmental

<u>Melaleuca Mulch</u> (brand name FloriMulch)

- Environmentally sustainable product
- Long lasting; withstands high use
- Heavier so it won't wash away
- Treated to kill seeds
- Repels termites

<u>Eucalyptus Mulch</u>

- Harvested on managed plantations
- Renewable resource
- Maintains soil pH
- Repels termites, fleas, ticks
- Aromatic

<u>Pine Straw (Pine Needles)</u>

- Harvested from pine plantations
- Lowers pH or acidifies the soil
- Does not wash away
- Resists compaction
- Suppresses germination of weeds
- Flammable

<u>Pine Bark</u>

- By product of forestry industry
- Long-lasting material
- Floats during high rain events
- Low maintenance

Yard Waste (clippings, leaves, chipped)

- Free
- Adds nutrients to the soil
- Decomposes quickly
- Not as uniformly attractive
- Can spread weed seeds

Compost

- Free
- Full of nutrients
- Takes time to become ready to use
- Decomposes quickly

Mixed Hardwood Mulch

- Decomposes quickly
- Questionable nutritional value for soil
- Produced from scrap lumber
- Raises pH or alkalinity
- May include pressure-treated lumber treated with chemicals including arsenic

What About Dyed Mulch?

Although colored or dyed mulches are readily available and increasingly popular, there are several reasons why dyed mulch should be avoided:

- Often made from wood waste (old buildings, pressure-treated lumber) containing Chromium Copper and Arsenic
- Does not break down as fast as natural mulch
- Leaches dye and possible contaminates into the soil harming or killing soil bacteria, insects, worms and even the plants themselves

Can I use shell, rocks, or rubber mulch instead?

Inorganic mulches are **NOT** recommended and may require a Development Permit. Please contact the City of Sanibel Planning Department (239) 472-4136 for more information.

Unlike organic mulches, crushed shell, gravel/rock, and shredded rubber tires do not contribute to the soil's nutrient and organic content or water-holding capacity. These mulches last a long time, but will need to be cleaned of debris frequently.
These mulches absorb heat from the sun, raising soil temperature to levels that destroy nutrients and beneficial organisms. Shells and limestone chips raise the alkalinity of our already highly alkaline soil.

How to Mulch

- For new areas, lay down several layers of newspaper as a weed barrier
- Spread mulch 2-3 inches thick; if mulch is too thick roots are deprived of oxygen
- Keep mulch 2 inches back from any tree trunk or plant stems
- Mulch under trees to the ‘drip line’ (out to the edge of the canopy)
- Do not mulch under citrus or avocado trees
- Do not mulch in wetlands or natural areas. Wetlands are protected by both City and State laws and may not be “filled” with organic or inorganic mulch
- Leaf litter in natural areas provides mulch that is free and renewable