

**Linda Chalker-Scott, Ph.D., Extension Horticulturist and Associate Professor,  
Puyallup Research and Extension Center, Washington State University**

### **The Myth of Pretty Mulch**

*“Bark mulch and sawdust are aesthetically preferable to wood chips and they work just as well”*

#### **The Myth**

When I speak to professional and community groups, I am invariably asked if bark mulch and sawdust can be used in place of arborist wood chips. Initially this question surprised me, given that bark mulch and sawdust can be quite expensive, and wood chips are cheap, if not free. When I press people on this issue, it turns out that the real reason is aesthetics.

People like neat landscapes: no weeds, no bugs, no leaf litter. It's another way for us to separate ourselves from the “messiness” of nature. Most of us realize that leaving soil unprotected is not a good management practice, however. Bark mulch and sawdust are therefore viewed as acceptable mulches because they are uniform in color and texture. You can even buy colorized spray products to return weathered mulch to its original appearance! The USDA also promotes the use of bark mulch over other materials for “attractive” landscapes.

#### **The Reality**

The “invention” of bark and sawdust mulch was beneficial to both the landscape and timber industries. Prior to this time, the timber industry used these lumber leftovers as hog fuel. Recycling these materials in a more environmentally friendly way theoretically benefits everyone. There are, however, some problems associated with bark and sawdust mulches that must be recognized by the landscape industry and homeowners.

First of all, bark does not function like wood chips in its water holding capacity. Bark is the outer covering of the tree and is heavily suberized to prevent water loss. Suberin is a waxy substance that will repel water, and in fact helps explain why fresh bark mulch always seems dry. Wood chips, on the other hand, consist primarily of the inner wood, which is not suberized and has the capacity to absorb and hold moisture. One of the perceptive gardeners at the University of Washington realized that bark mulch had created a “nearly impenetrable wall between surface water and plant roots” and replaced the bark with wood chips. Due to its fine texture, sawdust also creates an impermeable barrier, which repels rain and irrigation water.

Secondly, bark mulch is often a source of weed infestation. While newer mills have cleaner areas to hold surfaced logs, other still hold logs in weedy areas rife with horsetail and other serious landscape pests. The lumber mills take the self-described “logyard trash” - a mixture of soil, rock, bark and fine organic matter – and separate it into useful fractions. The fines will be contaminated with seeds from weeds in the logyard. I have seen a number of landscaped sites where applied bark mulch immediately gave birth to horsetail seedlings. Similar problems have been reported in agricultural studies where bark mulch was used in fruit production.

Thirdly, bark mulch made from trees that have been held in salt water can contain extremely high salt levels, leading to plant stress and death. The curators at the Weyerhaeuser Pacific Rim Bonsai Collection once had the misfortune to use salt-contaminated bark mulch on their trees, causing a significant amount of damage to these valuable specimens. This is particularly a problem with Douglas fir bark obtained from lumber mills around Puget Sound. Fortunately, rainwater will eventually leach these salts away.

Finally, bark mulch made from softwood, like Douglas fir, can be miserable to work with! The fibers that help support the living cells in the tree are made from the same material you find in nutshells, but these are long and pointed. Anyone who has worked in landscapes mulched with bark has probably experience “porcupine hands” afterwards. Gloves of course can minimize this, but some tasks that require fine coordination do call for bare hands.

Obviously aesthetics play a part with some consumers when they choose a mulch, and aesthetics should not be dictated by anyone other than the owner of a landscape. When aesthetics interfere with plant health, however, they are of secondary importance. To me, the drawbacks associated with both bark mulch and sawdust do not justify their use on ornamental landscapes. Conversely, arborist wood chips appear to have all of the benefits and none of the problems associated with bark or sawdust. If appearances are important, you can either ask for more finely chipped material, or purchase your own chipper and do it yourself.

### **The Bottom Line**

- Bark mulch can be contaminated with salt or weed seeds
- Bark naturally contains waxes that prevent absorption and release of water in landscapes
- Sawdust is too fine a material to use as a landscape mulch and will prevent water and gas movement as it compacts
- Softwood bark mulches are often not “gardener friendly” due to the presence of tiny, sharp fibers
- Arborist wood chips can be finely chipped if this is more aesthetically desirable

For more information, please visit Dr. Chalker-Scott’s web page at <http://www.theinformedgardener.com>.