

 UI Extension Forestry Information Series

## Mulches for Conservation and Plantation Plantings

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Whether planting trees is something you want to do, or necessity has dictated that it is something you have to do, it is a chore that many of us will probably go through sometime in our lives. Tree planting can be fun, providing a great sense of accomplishment and warm feelings about doing something to improve our environment. Then comes the hard part: seedling maintenance, especially weed control.

Many people use a combination of cultivation and herbicides to control weeds and other unwanted vegetation in a tree planting. Cultivation is time consuming, especially when you hand-pull vegetation around trees which cannot be reached by machinery. Herbicides can be expensive, and if not applied properly, can damage or kill seedlings. Another method frequently used in forestland settings is scalping a clean area around each tree at planting, in the often vain hope that the weeds will not grow back before the tree is established.

Then there are mulches. Mulching inhibits weed germination and growth and conserves moisture around the tree, which can become critical during drought years. The best results are usually obtained when the mulch is applied to a vegetation free surface. The literature from the manufacturers of mulching products suggests application over existing vegetation, with the prevention of sunlight killing any existing vegetation. We have had variable results with this technique, depending on the weed species.

Many types of mulches are available for use in tree planting and maintenance situations. Sawdust, straw, and bark are popular, readily available, moderately priced, and easy to apply. One disadvantage of organic mulches is they do decompose and need to be

replenished with another layer every 1 to 3 years, depending on the material used.

Another mulching alternative is man-made landscaping mats or fabrics. The fabric mulches of today are usually made of high tech materials such as polypropylene or polyethylene geotextile fabrics that are treated for protection against ultraviolet degradation, and guaranteed for 3 to 5 years. Unlike plastic, these types of mulches are microperforated to allow water and air exchange with the root zone. Fabric mulches give you all of the benefits of organic mulches, with the addition of not having to replace them or compensate for nitrogen lost to decomposition. Usually by the time the fabric mulch has degraded to the point of having to be replaced, the trees are large enough to successfully compete with any surrounding vegetation.

The advantages of individual mats are: they are easy to install by yourself, come in various sizes, are long lasting, and the cost is not prohibitive. The disadvantages of using mats is the need for controlling unwanted vegetation growing between the mats and the ability of a few weed species to germinate on the mats or fabric. Using a combination of fabric mats and organic mulches controls weeds well and greatly helps in retaining soil moisture, but has the disadvantage of providing nesting sites for mice during the winter.

An alternative to individual mats is a relatively new rolled fabric mulch being used extensively in wind-break plantings. The rolls are available in different widths, the most common being 6 and 8 feet. Landscape fabrics are installed using specialized equipment that lays the fabric and mounds soil over the edges to

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anchor the material to the ground. Holes are then marked and cut at desired spacings to plant trees. Some people have found that putting a rock, or some other weighted object, next to the slit is helpful in keeping the fabric from catching the wind and being pulled up. Rolled fabric mulches provide an area of continuous cover to aid in weed control and retain soil moisture. They take less time to install and are easy to maintain these advantages may offset the one disadvantage of rolled fabric mulches: increased cost.

Protecting your tree planting from weed competition can be time consuming and expensive. But when you

go out to your favorite spot and see the new trees coming up under the old, stroll through your high-value hardwood plantation, or sit back and enjoy the benefits of a conservation planting, you will realize that all of your efforts were worth it. It has been said that “We plant trees not for ourselves, but for future generations.”

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