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Pine Straw Mulch in the Landscape

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Pine straw is a clean, very attractive, bright brown mulch that can be used in most landscape situations. Pine needles or pine straw is a renewable resource available for harvesting each year.

In Louisiana there are five native species of pine trees — short leaf, loblolly, slash, long leaf and spruce. The long leaf and slash pines produce the preferred straw and are in the most demand. The other three species, because of their shorter needle length, are more difficult to bail and transport and are not as readily available. They are excellent sources of mulch though, and homeowners who have these trees can use the pine straw for mulch.

Just what is a mulch, and what are the qualities that make these materials desirable? A mulch is material applied to the soil surface to protect or improve the area covered. A mulch maintains favorable conditions for plant growth. Several materials used as mulch may have similar effects on plants. The increased plant growth is caused primarily by improved physical conditions resulting from the use of a given mulch material rather than by any growth-promoting substances present in the mulch. In other words, pine straw mulch provides little nutritional value.

The value of a pine straw mulch has had wide acceptance in extensive landscape developments throughout the United States. It has become one of the most widely used mulches for large projects which include residential complexes, industrial complexes, highway landscape projects and single family residential sites.

When using pine straw and other dry organic mulches (pine bark, leaves, grass clippings, leaves, peat moss and bagasse), be aware that these mulches are a possible fire hazard. Caution should be exercised in using them near wood and other flammable structures.

Pine straw is a very desirable mulch in that it saves consumers time in landscape maintenance. Pine straw greatly reduces weeding time, watering and cleaning up after heavy rains. In addition, pine straw creates an environment in which plants grow uniformly. The mulch gradually breaks down to release organic matter, some nutrients and to improve the soil texture.

Today, pine straw is harvested and packaged in bales. Bales of pine straw may be purchased from wholesalers or local dealers. Bales weigh from 25 to 50 pounds, and are from 3 to 6 cubic feet. Prices range from 15 to 20 cents per pound, depending on the availability and the competition. Current pine straw costs and recommended application rates can result in cost savings of

50 percent to the customer over traditionally used mulches.

The recommended rate for pine straw for initial landscape applications is a 3-inch cover. An application of 1/2 lb. per square foot will give this desired depth of mulch. Thereafter, you will have to add 1/4 lb. per square foot for annual maintenance. A 25-lb., 3 cu. ft. bale will cover approximately 50 square feet for the initial application, and will cover 150 square feet for annual maintenance purposes. A 50-lb. bale will cover twice that area. When you apply the straw at the rates recommended, a 50-lb. bale will cover approximately 150 square feet to a depth of 3 inches and settle to a 1 to 1 1/2 inch blanket of straw.

A good mulch should have several beneficial effects upon the soil, plants and the area surrounding the plants.

1. Conserves soil moisture by reducing the evaporation of water from the soil.

2. Prevents crusting of the soil surface, thus improving absorption and percolation of water to the soil areas where the roots are growing.

3. Maintains a more uniform soil temperature by acting as an insulator that keeps the soil warm during cool spells and cooler during the warm months.

4. Reduces weed problems when the mulch is weed-free and applied deeply enough to prevent weed seed germination or to smother existing smaller weeds. Time and labor of weeding garden areas are reduced considerably when mulches are used properly.

5. Adds to the beauty of the landscape by providing a uniform cover which can be neutral or non-detracting and may add an interesting color and texture to contrast.

6. Prevents fruit and plants from becoming mud splashed and reduces losses from soil-borne diseases.

7. Prevents freezing injury to roots of cold tender plants.

8. Prevents compaction or packing of soil, primarily by reducing the impact of rain on soil surfaces.

9. Prevents wind and water erosion of exposed soils.

Pine straw as a mulch is applied at the time of planting. At this time, a 3-inch mulch of pine straw is used. Then each subsequent year approximately an inch is added to the existing mulch to maintain it at the proper depth.

Pine straw has several desirable qualities that make it superior in one or more respects over other materials used as organic mulches. Pine straw does not wash away or float out of the beds as do some of the other materials, particularly pine bark. Pine straw, because of the meshing and interlocking of individual needles, does not wash from the soil surfaces even where there is a reasonable slope or grade change. Some mulches such as grass clippings and leaves from native trees are sometimes blown from the area over which they are used as a mulch. Pine straw is not easily blown away from beds over which it is used.

Pine straw breaks down relatively slowly and does not form a crust over the soil as do materials such as peat moss and grass clippings. Pine straw also allows for easy penetration of water, air and fertilizer to the soil. Some mulching materials, such as grass clippings, leaves and peat moss, crust or thatch over, preventing the easy movement of air and water into the soil beneath the mulch. Bagasse and grass clippings remain excessively wet during certain periods, and this excess moisture may damage the plants' root system.

Other advantages of pine straw are it adds color and textural qualities, it costs less than other mulches, is easy to apply, and is relatively free of insect and disease pests. An often overlooked value of mulches is aesthetic quality as a substitute for a lawn turf or other ground cover. A pine straw mulch is much more economical than many living ground cover plantings. It can be used over extensive areas at a low initial cost and annual maintenance.

In many cases there are places where living plants are difficult to establish and maintain. Examples of typical problem areas include large heavily shaded areas with multiple tree trunks, competition from shallow, protruding tree roots, compacted soils, slopes, small areas difficult to maintain and other areas where a large unifying carpetlike ground cover element is needed.

Where pine straw is used as a ground cover, chemicals to control weeds are easy to apply and are very cost and labor effective.

When pine straw mulch is added annually as a part of ongoing maintenance, landscape plantings continue to have a fresh, clean, renewed appearance.

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