

# SAWDUST AS A MULCH



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# SAWDUST AS A MULCH

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Sawdust is an excellent material to use as a mulch for the vegetable or flower garden, and for strawberry plants, berry bushes and shrubs. Sawdust is easy to get in many communities. In some localities large piles of sawdust remain unused or are burned because home gardeners do not appreciate its true value.

Many home gardeners are reluctant to apply sawdust around their plants because they believe certain injurious effects may occur. The advantages so far outweigh the disadvantages that this material should be used without hesitation in any area where it can be obtained readily.

## Advantages

Many advantages result from the use of sawdust as mulch. It conserves moisture and keeps the soil cool during the hot summer months. It also helps rain water move into the soil. Weeds are easier to control in a mulched garden. The yield of the crop is increased and the quality is improved. Vegetables and flowers may be harvested from such a garden immediately after a rainstorm without the gardener having to walk on muddy ground.



Sawdust mulch maintains a moist cool soil condition which promotes vigorous growth of vegetables.

Several additional benefits are secured when sawdust is plowed into the soil after it has served as a mulch. Heavy soils will become lighter and easier to work, and light soils will have a higher water-holding capacity. When the sawdust has decomposed into humus, it increases the nutrient-holding ability of the soil. This may be of real importance in sandy soils.

## Sawdust Not Toxic to Plants

There is no conclusive evidence to indicate that sawdust contains substances poisonous to plants. There are no known chemicals in either hardwood or softwood sawdust which would injure plants. The question is frequently asked: "Won't the resin in pine sawdust injure vegetables or other crops?" No such injury will occur. Since resin is a gummy material which will not readily dissolve in water, it is not absorbed by plant roots. Evidence that resin will not hurt plants is the fact that grafting wax, applied to protect tender plant tissues following the grafting operation, contains resin. Actually, pine sawdust contains only about 2 percent resin. The amount added to the soil by a sawdust mulch could not possibly injure growing plants.

Tannins and terpenes which may occur in some types of sawdust do not injure plants. Soils to which large amounts of tannin and tannin-containing materials have been added have produced normal crops.

## It Does Not Make the Soil Acid

Contrary to popular belief, sawdust does not make the soil acid. Numerous tests conducted by research workers in different parts of the country bear this out.

Most soils in the eastern United States gradually become more acid because of the leaching effect of rain water. The final effect of sawdust is to help maintain or increase slightly the alkaline reaction of the soil.



### **Nitrogen Deficiency**

A deficiency of nitrogen may develop if large amounts of organic material are mixed with soil. This deficiency develops because the bacteria which decompose the organic matter tie up the soil nitrogen in an unavailable form. Therefore, you may need to apply nitrogen fertilizer when you mix sawdust with the soil. Most mulched gardens which receive the usually recommended fertilizer treatment do not need extra nitrogen. If a deficiency of nitrogen occurs the leaves of plants become light green or yellow. A side dressing of readily available nitrogen fertilizer such as nitrate of soda, followed by rain or irrigation, will quickly correct the condition.

### **Kind and Amount**

Hardwood or softwood sawdust may be used in either a fresh or weathered condition. Fresh sawdust will last longer than old sawdust when used as a mulch, and will have a somewhat greater effect on making soils lighter or more retentive of moisture when plowed under. Old or rotted sawdust will become humus more rapidly and is less likely to cause nitrogen deficiency.

A 1-inch layer is sufficient to give satisfactory moisture-conserving and soil-cooling effects for shallow-rooted crops like vegetables, flowers and strawberries. A thicker covering will be of little additional benefit around such crops, and may add to the problem of nitrogen deficiency when the material is plowed into the soil.

A 2-inch layer of sawdust may be used around trees, shrubs, roses, or berry bushes where a permanent mulch is to be maintained. This depth will be more effective in controlling weeds and will not need to be renewed as often as a thinner covering.

Buy sawdust by the cubic yard rather than by weight. One cubic yard will provide a 1-inch mulch over 324 square feet of area. About 4 cubic yards are needed for a garden 30 feet wide and 40 feet long. A 50 x 50 foot garden will require about 8 cubic yards.

### **Shavings and Wood Chips**

Shavings and fine wood chips may be used as mulch in much the same way as sawdust. They should not be applied until after the young plants

have become well established. When the vegetable or flower seedlings are several inches tall apply the shavings or chips to provide a 1-inch mulch.

Coarse wood chips are not recommended for a garden which is to be plowed each year. Apply this coarse material around shrubs, berry bushes or trees where a permanent mulch is to be maintained.

### **FOR THE VEGETABLE GARDEN**

Apply the sawdust as a light covering after the garden is planted to promote the germination of seeds. After the plants are well started add a heavier layer to conserve soil moisture. Good results will be obtained by planting the vegetable seeds and covering them with soil in the usual way. Then spread a band of sawdust about 4 inches wide and one-fourth inch thick on top of the row. This mulch helps to reduce crusting of the soil and allows the young vegetable seedlings to emerge easily.

When the vegetables are about 2 inches high apply a 1-inch layer of sawdust over the entire area between the rows of vegetables. If weeds are more than 1 inch tall they should be killed by cultivating or hoeing before the mulch is added. If weeds are less than 1 inch tall the sawdust will smother them.



**Sawdust helps to control weeds in the garden. You may harvest vegetables immediately after a rainstorm without getting shoes muddy or packing the soil.**



Some weeds will continue to come up through the mulch. Pull these out by hand or carefully cut them off with a sharp hoe. The weeds are very easy to pull when the ground is moist after a rain. Do not cultivate because this will mix the sawdust with the soil and destroy its value as a mulch. Also, every time you stir the soil you bring weed seeds near the surface where they will germinate. Therefore, every time a garden is cultivated in the usual way you destroy one crop of weeds and plant another.

Sawdust mulch will not suppress the growth of quack or Bermuda grass. In fact, these grass-type weeds may be more difficult to control in a mulched garden than in a cultivated one. Crab grass may become a problem in late summer unless the young plants are removed when they first appear.

#### **Fertilization of the Mulched Garden**

Fertilize the sawdust mulched garden just like a cultivated garden, with complete fertilizer. Use about 30 pounds of a 5-10-5 fertilizer per 1,000 square feet of area or 75 pounds for a 50 x 50-foot garden. Broadcast the fertilizer on the plowed land and harrow it into the top 2 or 3 inches of soil. If you prefer to apply fertilizer in the row, use 6 pounds per 100 feet if the rows are 2 feet apart. Apply proportionally less or more if rows are spaced closer or farther apart. If the soil has been tested and shows a low level of potassium, use 5-10-10 fertilizer. A pint of fertilizer weighs about 1 pound.

As the garden grows during the summer, watch for any tendency of plants to become light green or yellowish in color. If such evidence of nitrogen deficiency appears, apply a side-dressing of fertilizer containing readily available nitrogen along the row. Materials such as nitrate of soda, ammonium sulfate or ANL may be used at the rate of about 2 pounds per 100 feet of row. Ammonium nitrate may be used at the rate of about 1 pound per 100 feet of row.

These nitrogen fertilizer materials are also recommended for the lawn. Buy one or more 100-pound bags. Use at the rate of about 1 pound per 100 square feet on your lawn and save some for the garden.

If you do not have a nitrogen fertilizer you



Sawdust mulch should be about 1 inch thick in the vegetable garden. Use it on crops which are ridged up like potatoes, or where the soil is left flat as in most gardens.

may use a complete fertilizer for side-dressing. Apply about 5 pounds of 5-10-5 along each 100 feet of row. Do not cultivate to get the fertilizer into the soil. Rains will wash the beneficial nitrogen into the ground. Cultivation will destroy the mulching effect of the sawdust.

#### **Plowing Sawdust into the Ground**

After sawdust has been used as a mulch in the garden, plow it into the ground to improve the workability of the soil. This improvement in soil texture usually will give increased yields of better quality vegetables. If your soil is medium to heavy in texture plow in the fall or winter. Do not wait until spring because the sawdust mulch will prevent the soil from drying out and may cause an undesirable delay in plowing. Soil moisture is not such an important factor when plowing sandy soils. If your soil is sandy you may plow in early spring.

#### **FOR FLOWERS**

You may use sawdust mulch for annual or perennial flowers just as for vegetables. For most flowering plants, keep the mulch no deeper than 1 inch. A thick mulch may limit soil aeration and promote root and stem rot organisms. A 1-inch layer will encourage vigorous growth and will promote abundant flower production over a long period of the summer. If the flowers are making poor growth,



a side-dressing as suggested for vegetables may be helpful.

#### **FOR STANDARD SPRING-CROP STRAWBERRIES**

Sawdust may be used instead of straw as a mulch for standard spring-crop strawberries. A 1-inch layer is adequate to promote vigorous fruitful growth. You may apply this mulch late in the summer after the runners have become established or in the fall after 1 or 2 heavy frosts have occurred. If you use a full inch of sawdust, you will not need an additional mulch of straw to protect the plants from cold during the winter.

#### **FOR EVERBEARING STRAWBERRIES**

Everbearing strawberries will produce large crops of fruit if grown in a hill system with sawdust mulch. In a home garden a planting 40 feet long and 15 feet wide of everbearing strawberries may produce 100 quarts or more of strawberries the first year.

A four-row bed system is recommended in which the plants are set 1 foot apart in rows 1 foot apart. Plant 4 such rows and leave a 2-foot alley as a path to work on when you pick the fruit or remove weeds, blossoms and runners.



Four-row beds of everbearing strawberries mulched with sawdust. This hill system of culture gives high yields.

#### **Application of Sawdust Mulch and Weed Control**

The first crop of weeds will usually appear within 2 or 3 weeks after you plant the strawberries. Control them by hoeing. The plants are too closely spaced to allow for cultivation. After this first hoeing operation, cover the entire area with a layer of sawdust 1 inch thick. Weeds which appear after the mulch is applied should be pulled by hand, preferably after a rain when the ground is soft.

#### **Blossom Removal, Runner Control and Fruit Production**

Until early July, remove all blossoms which develop on the newly set plants. Removing these early blossoms is necessary if the plants are to produce a large crop the first year. The exact date to stop removing blossoms depends on the vigor of the plants. If the plants are well established and growing actively by the first of July, allow the flowers to develop fruit. Under such a schedule, the first ripe berries will be ready for picking in early August. If the plants are making poor growth because of late planting or drouth, continue blossom removal until the middle of July.

After fruit production starts in August, harvest ripe berries about twice each week until frost stops growth in October. The sawdust mulch helps to conserve soil moisture during the late summer. If an extended drouth occurs irrigation will greatly increase the size and quality of the crop.

Remove all runners from the fruiting plantation as fast as they develop. This is essential if you are to get the highest yields.

The production of everbearing strawberry plants may become a profitable sideline because these plants are more costly than the June-bearing types. If you want to produce plants for the next year's planting, or for sale, set out a few extra rows and allow them to develop into a matted row of runners. Trying to raise runner plants in the bearing strawberry bed is not advisable. Keep the bed in the hill system.

#### **Varieties of Everbearing Strawberries**

**Superfection** and **Gem** have given the best yields of any readily available varieties tested to



date. In some localities, the **Superfection** may produce slightly higher yields than **Gem**. These varieties have an irregular wedge-shaped berry. The flesh is of average quality and a bit acid. These varieties are excellent for freezing.

**Streamliner** produces smoother, higher quality berries than either **Superfection** or **Gem**, but usually gives a smaller total yield of fruit. **Red Rich** is not very productive in Virginia.

#### **Duration of Planting**

Usually the finest, largest berries are borne during the fall of the first growing season. The crops produced in June and late summer of the second year will be of acceptable size and quality but not quite as large as those produced the previous fall.

If the planting is located on well-drained fertile soil and has not suffered from diseases, insects or weed competition, you may harvest a good crop the third year. The individual grower must decide whether to keep the plantings for 3 or 4 years. Under most circumstances, however, you cannot expect such a long, productive life.

#### **FOR SHRUBS AND BERRY BUSHES**

Most ornamental shrubs will grow more vigorously if a mulch of about 2 inches of sawdust is maintained on the soil under the branches over the rooting zone. This is especially true of evergreen shrubs, particularly azaleas and rhododendrons. Most shrubs have many small feeder roots near the surface of the soil. These are injured if the ground is cultivated and also may suffer in a dry unmulched soil. A mulch of sawdust, peat moss, peanut hulls, or chopped straw is good for these plants.

Berry bushes such as blueberries, raspberries, blackberries, and currants usually grow much more vigorously and are more fruitful if a mulch is placed on the soil around the plants. Use a 2-inch layer of sawdust or other organic mulch material. As this mulch decomposes into the soil, add more to maintain the desired depth. Maintain a sufficient layer of mulch to keep down weeds.

A mulch around grapevines may promote an undesirable succulent, vegetative type of growth on fertile soils where adequate amounts of rainfall occur. On the other hand, a mulch may be quite beneficial for grapes on sandy or gravelly soils where the water supply may be somewhat short during the growing season.

#### **FOR LAWNS**

Sawdust may be used instead of straw on a newly seeded lawn. It is less likely to be blown around by the wind and will not contain weed seeds as is usually the case with straw. It helps to prevent crusting of the soil and thus allows the young grass seedlings to easily break through the surface.

Use a very thin layer of sawdust, only about one-eighth inch thick. You should be able to see the soil through the sawdust. A thicker layer may tend to crust over and prevent the growth of the small grass seedlings. Do not use shavings or wood chips on a newly seeded lawn.

There is no particular advantage in using sawdust on an established lawn. It will not work down into the soil and make it lighter as might be desired. The best way to improve the soil of the lawn is by applying liberal amounts of fertilizer. This promotes vigorous growth of the grass which results in a larger and deeper root system and thus improves the structure and organic matter content of the soil.



