

Mulching Tree Fruit and Small Fruit

Application of mulch is one of the most effective ways to conserve moisture during dry periods. Since it has a number of other beneficial effects, it should be considered a useful practice even in non-drought situations. There are many mulch materials available, but here I will primarily discuss organic mulches since they are very effective and can be incorporated into the soil to improve it. Mulching is an underutilized practice that should be considered by all serious gardeners, whether they grow fruit crops or not. Mulching has many benefits, some of which can not be duplicated by any other horticultural practices. Some of these benefits include:

- Reduce moisture loss and conserve water.
- Improve soil structure. This provides a soil environment conducive to good root growth.
- Reduce soil temperature, thus allowing plants to grow better during the heat of the summer.
- Reduce or stop weed growth.
- Reduce soil compaction.
- Provide essential nutrients needed for good plant growth. Once mulch starts to break down, nitrogen, potassium and some minor elements are made available for plant growth.
- Keep fruit clean.
- Protect plants from the cold when applied in the fall.
- Provide a clean and pleasant surface for caring for plants and harvesting fruit.

Mulching can be done at almost any time of the year. The greatest effect for improving plant growth is achieved when mulch is applied in June after the soil starts to warm up. If you mulch in July you can still expect to get good results. Mulching for winter protection should be done in November, after several frosts have occurred.

Organic matter such as straw, hay, wood chips, ground bark, sawdust, leaves, grass clippings, and pine needles are common mulching materials. These should be applied to a depth of 2 to 6 inches and cover the ground around a plant out to the drip line. Black plastic is often used in vegetable production. Newspaper and other paper products can be used but the heavy metal content in many inks may make this choice less desirable.

Because mulch provides a very favorable environment for plants to grow in, plants may grow late into the fall, making them susceptible to winter injury. Mulch also provides an almost perfect environment for mice to live in. Damage caused by mice feeding on roots and bark is a common occurrence on mulched plants. To help counteract these problems, mulch should be pulled away from trees in late August. Tree growth will be slowed and mice frequently move to other areas where they can be protected.

Mulch having a high carbon to nitrogen ratio (sawdust, wood chips) may cause nitrogen deficiency on plants. Bacteria that break these materials down use nitrogen, thus depriving plants of this vital element. The best solution is to compost these materials until they start to break down. This may require a year or two for sawdust. Alternatively, you may make supplemental applications of a water soluble fertilizer high in nitrogen. It has been my experience that this strategy does not work as well.

Recommendations for specific fruit crops

Strawberries. Mulch in mid November with straw or pine needles for winter protection. Remove mulch from the tops of plants and redistributed around plants and between rows in April to keep berries clean when they ripen, reduce fruit rot and help keep the soil cool as fruit ripen.

Raspberries. Hay or straw mulch is beneficial when used around newly planted plants. Routine application of mulch after the first year is usually not recommended.

Blueberries. Mulch yearly with either wood chips or partially composted sawdust. Plants should be mulched yearly to maintain a 4 foot wide strip at least 6 inches deep.

Apples, pears, peaches, plums and cherries.

Tree fruit should be mulched to the drip line with 6 to 8 inches of straw or hay in May. Mulch should be reapplied periodically and pulled away from trees at the end of August or early September. This will allow trees to harden off and to reduce mouse pressure around the tree.

Grapes. Grapes are usually not mulched because they have a very deep root system. If they are mulched to control weeds, they should be treated like tree fruit.

Mulching is an excellent horticultural technique that is beneficial to all plants in the garden and particularly useful during dry periods. Consider improving the growth and productivity of your plants with mulching.

UMass Extension Agriculture and Landscape Program 4/12

UMass Extension is an equal opportunity provider and employer, United States Department of Agriculture cooperating. Contact your local Extension office for information on disability accommodations. Contact the State Extension Director's Office if you have concerns related to discrimination, 413-545-4800 or see www.extension.umass.edu/civilrights/.