

## Gardening with Mulches

Mulch is a layer of material spread over the soil surface to achieve one or more of the following benefits:

- Reduce soil compaction from rain
- Minimize soil erosion
- Suppress weeds
- Reduce spread of disease
- Warm up the soil
- Insulate the soil from extreme temperatures
- Reduce evaporation and/or
- Keep the soil moist

### Types

- Organic mulches are made from materials that once lived. Examples include sawdust, straw, yard debris, manure, and leaves.
- Plastic mulch colors range from black, red and silver to clear.

### Organic Mulches

Organic mulches will decompose over time, providing food for earthworms and other soil microbes. If you apply organic mulch to the garden in the fall to prepare it for planting in the spring, you may use green, non-composted material. However, if you apply it shortly before planting in the spring, it is best to use composted material. Otherwise, as the mulch decomposes, it may compete with your plants for nutrients.

When using straw, autumn leaves, or other organic materials that contain little nitrogen, add extra nitrogen fertilizer to help them decompose. Weed-free straw is a light-weight mulch but can be a fire hazard. If you use grass clippings which contain a moderate level of nutrients as mulch, apply a layer that is thin enough to dry readily. A layer that is too deep could turn slimy or form a dry crust which prevents water from penetrating.

Spread a 2" to 4" layer of organic mulch on the soil surface around your plants; do not cover the plants or the crown of the plants. At the end of the gardening season, organic mulches can be worked into the soil to improve its texture for the next planting season.

### How to Use Organic Mulches

In the fall, remove diseased leaves and weeds from the garden, and then add a layer of organic mulch. This will keep weeds low during the winter and spring while protecting plant roots from freezing temperatures.

In the spring, push mulch away from the plant to help the soil in the root zone warm up faster.

In the summer, before temperatures climb, push the mulch back to cover the root zone. This will minimize evaporation and moderate changes in soil temperature.

Reapply organic mulch as it breaks down to get all the benefits of mulching.

### **Plastic Mulches**

Plastic mulches are often used to suppress weeds or to warm the soil. A 3- to 5-foot wide strip of plastic mulch placed over the root zone of tomato plants can speed up the ripening by as many as 10 to 14 days. Plastic mulch reduces evaporation as well. Because ultra-violet light breaks down the plastic, replace it as needed.

### **How to Use Plastic Mulches**

To suppress weeds: Lay black plastic after the soil is prepared for seeding or planting and after water lines have been placed. Weigh down the edges with soil. Insert the seeds or transplants through an X cut in the plastic. Some plastics come perforated to allow water through, or you can use an ice pick to perforate the plastic.

To warm the soil: Clear plastic and colored plastic that appears translucent warm the soil more than black plastic. However, because they allow light to penetrate, they also can create a "greenhouse" for weeds under the plastic. Black plastic warms the soil to a lesser degree but also reduces weeds.

To keep the soil dry: If you plan to work the soil early in the spring, you may cover the area with a large sheet of black plastic for the winter. It should keep that portion of the garden bed dry for very early soil preparation and planting. Be sure to weigh down the edges; otherwise, it can become a greenhouse for weeds and a hiding place for mice and rats.

To accelerate growth and maturity of heat-loving plants: Tomato, pepper, melon, strawberry and other heat-loving plants have been subjects of numerous university studies across the country regarding whether various colored plastic mulches affect said plants' growth, maturity and yield. Red plastic mulch is thought to reflect a certain spectrum of sunlight having a special effect on tomato plants' growth and maturity. Results of these studies vary. It appears that various factors such as intensity of the sun, temperature, variety of plant, type and brand of plastic, and time of year when plastic was applied all may affect the result.

### **OSU Extension Service Resources**

Visit your OSU Extension Service office at 200 Warner-Milne Road, Oregon City, for the following publication or get them online at <http://extension.oregonstate.edu/catalog>

*Gardening with Composts, Mulches, and Row Covers*, EC1247

### **Master Gardener™ Advice**

- Call the Home Horticulture Helpline: 503-655-8631 (Clackamas County), 503-821-1150 (Washington County), or 503-445-4608 (Multnomah County).
- For 10-Minute University™ handouts and class schedule, visit [www.cmastergardeners.org](http://www.cmastergardeners.org) or [www.metromastergardeners.org](http://www.metromastergardeners.org).
- Look for Master Gardeners at area Farmers' Markets.