

## Mulching Helps Plants Retain Valuable Moisture

Unmulched gardens let the sun beat down on the soil, and hot soils evaporate water fast.

Wind also blows away water vapor near the soil surface. University of Georgia horticulturists say an extra deep layer of mulch can reduce the evaporation driven by heat and almost eliminate moisture lost to wind.

Mulching can greatly reduce watering needs, too. A three- to four-inch layer of organic mulch can cut water needs in half. Mulch also smothers weeds and keeps water from evaporating quickly from the soil. Organic mulches hold water and increase the humidity around a plant.

Black plastic mulch also conserves moisture. But it may make the soil dramatically hotter during summer if it isn't covered by other mulches.

Shading and windbreaks can also help conserve moisture. Plants that wilt in very sunny areas can benefit from partial shade in the afternoon.

UGA horticulturist Paul Thomas shares his personal mulch recipe. Place 4 inches of composted pine bark around newly planted annuals. This coarse material has a lot of surface area. That's great for capturing rainfall and cooling the soil, but bad for wind- and sun-driven evaporation.

Then place 2 inches of pine straw on top of the bark. This layer intercepts and reflects some of the heat. More importantly, it reduces airflow over the bark.

Hand-spread these layers after planting the annuals. They settle down to about 4 inches after a week or so.

Whether you use Thomas' recipe or your own, once your mulch is in place, you won't need to water as often. On the other hand, a sprinkle of rain or a pass over with the garden hose won't wet the soil underneath all that mulch.

Adding organic matter can reduce the amount of water your plants need, too.

Soil moisture may not be available to plants, particularly if the soil is heavy clay, which tends to retain water.

Adding organic matter also improves the moisture-holding capacity of sandy soils. Although most water in sandy soil is available for plants, it drains so quickly that even a few days after rain, plants can't reach it. Humus in sandy soil gives the water something to cling to until the plants need it.

It will take a steady, lengthy watering to thoroughly saturate the soil. If you've prepared the soil and mulched properly, you won't need to water more than once a week. But when you do water, water thoroughly.

Applying 2 inches of water per square foot will saturate the soil and keep prepared soils moist for at least seven and usually 10 days. Your prepared soils will dry out very slowly. The roots will respond to slight drying by growing deeper.

Sources:

- **Paul Thomas**
- **Gary Wade**

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