



Conserving Water in the Vegetable Garden

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All vegetables, especially tomatoes, like an even supply of water throughout the growing season, and will often develop problems if their water supply fluctuates. If watering restrictions or bans are imposed, water conservation becomes a critical issue.

There are many ways to conserve water in the vegetable garden. One way is to cut the top from a gallon-size milk jug or large can, punch several very small holes in the bottom and set it in the ground with only the neck showing above the surface. Place one jug near or between each large plant (for example, tomato or squash) and fill it once or twice a week, or more often if needed. When the plants start fruiting and fruits are the size of a quarter, add one or two teaspoons of a complete fertilizer (such as 5-10-10) to each jug once a week.

Once the soil is moist, adding mulch will greatly increase the soil's ability to use water efficiently and help prevent water loss caused by evaporation. Organic mulches reduce the fluctuation of soil moisture levels and help keep the soil cooler during the summer. Mulches also have the added benefit of serving as a barrier to certain soil-borne diseases.

Spread organic mulches such as leaves, bark or weed-free hay 3 to 4 inches thick to prevent sunlight from reaching weed and grass seeds. Placing three sheets of newspaper on the soil with an organic mulch on top will also conserve

moisture and act as a weed barrier. The greater the amount of organic matter in your soil, the better the water-holding capacity it will have.

If possible, irrigate in a way that keeps plant foliage dry. Soaker or drip hoses are ideal for this. Water overhead in the late evening or early morning to allow time for plants to dry off when the sun comes up. Shallow-rooted crops, such as beans and greens, should be watered more frequently and with lighter applications than deep-rooted crops like sweet corn and tomatoes that require more water but less frequent applications.

Watering Guidelines

Do not stand in the garden and spray plants lightly every day. This is the worst possible way to water. Instead, soak the soil to a depth of at least 6 to 8 inches to encourage roots to seek water and nutrients deep in the soil. With an extensive, deep root system, plants are better able to withstand dry periods. In the absence of rainfall, a thorough soaking every four or five days on light, sandy soils and every seven to 10 days on heavy clay soils is a good general guide for irrigating vegetables.

As much as vegetables like moisture, over-watering is harmful. Over-watering not only wastes water, it also prevents the roots from getting air. If your plants look wilted on a hot summer afternoon, that's normal. They will usually perk up overnight. If plants are wilted in the morning, don't wait -- water.

Watering early in the morning or at night reduces evaporation loss and allows plant foliage to dry quickly after daybreak. Avoid watering at mid-day when evaporation losses are highest. Also, do not water when there is high wind; you can lose up to 50 percent of the water.

Soaker hoses and drip irrigation both conserve water by allowing water to soak in near the plant and not down the middle of the row. These two methods also allow the plant foliage to remain dry, which helps eliminate disease problems.

Resist cultivating the soil; stirring it will only increase moisture loss. Dry weather usually reduces weed growth, so don't cultivate unless absolutely necessary. If cultivation is required, plow shallowly and try to leave the surface as smooth as possible.



Soaker hoses are very water efficient and allow the foliage of the plants to stay dry while wetting the root system.

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