

MESSENGER-INQUIRER

	University of Kentucky College of Agriculture, Food and Environment <i>Cooperative Extension Service</i>
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Proper Watering of Plants in the Garden, Landscape, and Lawn

With the rain and then no rain and heat and then rain again, when do I need to water the garden and landscape? The amount of rain and when is out of our control, but when we water, we control the amount and timing. When is the best time to water? How much water do plants need?

Actively growing plants are made of 80 to 90 percent water. It is taken up by the roots, moves through the plant, and exits through the leaves in a process termed transpiration. This process is responsible for moving nutrients from the roots up into the leaves, cooling the plant through evaporation, and getting rid of water used in nutrient uptake.

If leaves are oriented at right angles to the sun, transpiration is maximized. Plants that roll their leaves when they are drought stressed lose less water. Plants with larger leaf areas lose more water through transpiration.

Plants will not grow if there is too much water in the soil, because the roots need to remove oxygen from the soil to take up nutrients. Thus, excessive irrigation can be harmful. Plants will wilt and may die if the soil is too wet.

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When watering plants in the garden and landscape, morning is the best time. Morning watering gives wet foliage a chance to dry fairly rapidly while evening watering tends to result in foliage that remains wet throughout the night. Foliage that stays wet for several hours has a much greater chance of disease developing on the leaves.

However, watering in the evening is better than no water at all; make sure that the water is directed at the plant base and away from the foliage. Watering during midday is not recommended because rapid evaporation of water from a plant's leaves may concentrate salts and burn the foliage.

Watering in the morning is best for the lawn also. The evaporative loss of water is lower at that time. In addition, the lawn benefits from the irrigation water removing dew from the leaf surface, which reduces disease problems.

The question arises, how much water should I apply to my plants? Think of this in terms of how much water it takes to satisfy you on a hot day. A splash to the face is refreshing but usually only satisfies us for a short time and is never meant to be our sole source of water. A similar dousing of plants on a hot day with a hose is rarely sufficient to supply the needed water. Such watering rarely penetrates more than an inch or so into the soil.

A thorough, deep watering is much more effective for all plants including vegetables. This will encourage plants to develop deep and well-dispersed root systems that provide good anchorage and help them obtain water more effectively during drought conditions.

At each watering, an application of at least 1 inch of water should be made to the area under the drip line of trees. If the water is being applied by a sprinkler, set an open-faced can in

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the area watered. When 1 inch of water accumulates in the bottom of the can, 1 inch of water has been applied in areas covered by the sprinkler. If a soaker hose or other type of drip irrigation is being used, make sure the top 6 inches of soil is wet. Drip irrigation is best to use under shrubs to prevent wetting the leaves.

When irrigation is possible for the lawn, it also needs 1 inch of water per week. For the lawn, it is recommended to apply about one-half to two-thirds inch of water every 3 to 4 days. Concentrate on watering lawn areas most susceptible to drought injury, such as south and west-facing slopes, poor and shallow soil areas of the lawn, and steeply sloping areas where rainfall tends to not penetrate.

If a rainfall of one-quarter inch or more occurs, skip the next scheduled irrigation. Then return to the every 3 to 4-day schedule.

If the water runs off before all of it is applied, stop and water again in one or two hours. The runoff water will be wasted.

Don't forget to water trees and shrubs, even established trees that are evergreen, such as blue spruce, and those that lose their leaves in the fall.

For more information about watering plants, contact the Daviess County Cooperative Extension Service at 270-685-8480 or annette.heisdorffer@uky.edu.

Annette's Tip:

Squash plants wilting and dying may be a result of a squash bug feeding on the plants and transmitting a bacteria that plugs the phloem, which is the food conducting tissue in the

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plant. This disease is managed by controlling the insect and planting more squash. Plant summer squash up to about August 15.

Upcoming Events:

Consider entering your fruits, vegetables, cut flowers, and herbs in the Daviess County Lions Club Fair. Information about requirements for entries for youth and adult categories is listed in the fair book available at the Daviess County Cooperative Extension Service Office or online at <https://daviess.ca.uky.edu/dc-fair>. Entries need to be delivered to the crop display headquarters on Tuesday, July 18, from 4:00 to 7:00 p.m. at the fairgrounds in Philpot.

Applications for the Extension Master Gardener Program Class are available at the office. The application deadline is August 4. Classes are scheduled for Friday mornings from 9:00 a.m. to noon starting September 8 through December 15. The registration fee is \$85.

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