

MESSENGER-INQUIRER



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HORTICULTURE EDUCATION

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Watering the Garden, Landscape, and Lawn

Does the time of day and amount of water really make a difference when watering plants? Of course, the timing and amount of rain are out of our control, but when planning to water, it is important to consider the amount needed and the best time of day.

Water makes up about 80 to 90 percent of the composition of all actively growing plants. Water moves into the roots up 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 have rolled 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 be able to remove oxygen from the soil to take up nutrients. Thus, excessive irrigation can be harmful.

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

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foliage that remains wet throughout the night. Foliage that stays wet for several hours has a much greater chance for disease to develop on the leaves.

However, watering in the evening is better than no water at all; just 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. 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.

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 the area being watered. When 1 inch of water accumulates in the bottom of the can, then you will know that 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. One

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inch of irrigation will usually wet the soil to a depth of approximately 6 inches. Drip irrigation is best to use under shrubs to prevent wetting the leaves.

When irrigation is possible for the lawn, it 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 steep 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 at one time, 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 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 plant. This disease is managed by controlling the insect and planting more squash. Plant summer squash up to about August 15 depending on the number of days to maturity as stated on the seed packet.

Upcoming Event:

Consider participating in the Daviess County Lions Club Fair. Entries for youth and

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adult open classes and 4-H categories can be found in the fair book available at the Daviess County Cooperative Extension Service Office or online at <https://daviess.ca.uky.edu/fair>. Fair categories include vegetables, fruit, flowers, herbs, farm crops, hay, canning, photography, cake decorating, and 4-H exhibits. Entries need to be delivered to the Exhibit Building at the fairgrounds on Tuesday, July 19, from 4:00 to 6:00 p.m. at the fairgrounds in Philpot. Ribbons and award money can be picked up on Sunday, July 24 from 2:00 to 4:00 p.m.

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