

Gardening Tips

From the West Caldwell Environmental Commission

SUMMER WATERING – DOING IT RIGHT

Irrigating lawns and gardens is a common practice for many North Jersey homeowners during the hot dry months of summer. The following has been prepared to acquaint gardeners with the principles of watering that will provide the greatest benefit to the plants and utilize the water being applied in a most efficient manner.

The single most important fact to remember when considering watering a lawn or garden is that moisture is taken up by the plants through their root systems. If the water you are applying is not directed to the appropriate area or is not sufficient enough to reach the roots of the plants you are NOT providing any benefit and, in fact, are wasting water at a time when this precious commodity should not be wasted.

Let us consider what it takes to get water to the root zone using lawns as an example since it is the most commonly irrigated area in the landscape. In a good lawn roots are found at a depth of about 6 inches. In order to reach this depth one must apply about one-inch of water per application. This normally takes several hours using standard sprinkler heads. Do not equate this with natural rainfall since when it rains the entire lawn is receiving moisture. When watering using a fan-type or circular sprinkler head, only that portion of the lawn where the water is directed at any moment in time is receiving water. The bottom line is that one hour of watering is not equal to one hour of natural rainfall. How then can you determine the time needed to apply the required amount of water with the equipment you have? Simply place a coffee can in the area being irrigated and determine the time it takes to get one-inch of water in the can. You now have the answer.

One-inch of water will normally satisfy a lawn for one week, but in extremely hot, dry conditions, two applications may be needed. On the other hand, a thunderstorm or two within a given week could eliminate the need for watering for extended periods. It is not uncommon for such storms to drop an inch or two of water in a very short period of time, which could easily satisfy the needs of your lawn or garden. This is a good place to remind gardeners to tune in to weather reports. If predictions tell us that rain is on the way delay your planned irrigation. If the weathermen are proven wrong, then continue with your initial plans a few days later.

Although the example given above was mainly for lawns, the same principles are in place for other garden plants. The frequency of applications may vary and the depth to which water is needed to be effective may be different. This is easy to understand if you compare annual flowering plants with a root depth of 8- to 10-inches versus tree roots, which may reach up to 3 feet. The fact remains that water you apply must reach and be available to the roots of plants.

Let us now examine some situations where irrigation is applied but the efficient use of water is not being satisfied nor is the process beneficial from the plants point of view.

(1) Short Frequent Watering.

Watering the garden, including lawns, for 15 to 30 minutes each day will only moisten soil to a depth of 1-inch. This moisture completely evaporates from the soil within an hour or so from the time of application and never reaches the roots of plants. If anything, this approach encourages shallow root development, which can be harmful and is an unnecessary waste of water.

(2) Using a Handheld Hose.

Rarely would any gardener using this procedure remain in a location long enough to provide the amounts of moisture that have been discussed above. Frequently this procedure is repeated on a daily basis, which produces the same results listed in #1 above. However, a handheld hose can be used successfully in watering small gardens and containers such as pots and hanging baskets with excellent results.

(3) Using Incorrect Sprinkler Heads.

Sprinkler heads or hoses using a fine mist spray are not recommended. This type of head delivers small droplets of water which tend to blow away in the slightest breeze, therefore, missing target areas. Also, in hot weather a fine mist evaporates readily. Those water droplets which reach the plant level tend to settle on leaves and branches where it also evaporates leaving the soil and roots high and dry. Overall, using a fine mist has a very poor efficiency rating.

In recent years, the installation of ground sprinkler systems has become very popular. How successful they are depends on how well the nozzles were placed, the type of nozzles that were used, and most importantly, the schedule or cycles that were devised to apply the water. There is no need to go into any detail on any of these since all of the information needed to determine whether your system is functioning properly is provided in the discussions above.

Watering a lawn, or other areas of the garden, for several hours at a time may not appear to be a good conservation practice. However, it can be demonstrated that over the long run more water is used when following the frequent short watering program versus the longer infrequent watering approach. Because the latter provides for a deep and lasting supply of water this provides a far greater benefit to the garden.

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