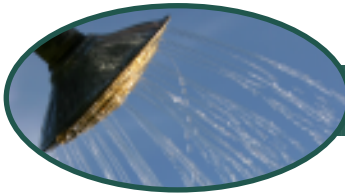




Watering New Plant Installations

Watering your new landscape plantings is the most important thing you will do to help them become established in your new landscape. There is no hard and fast rule of when to water and how much to water, but the general rule of thumb - 1 inch of water per week - is fairly accurate. Many variables will affect how much water you add to your landscape to supplement what Mother Nature offers with rainfall.



GENERAL WATERING TIPS

Soil moisture Determine the amount of soil moisture by sampling the soil with a narrow trowel or soil probe at a depth of 6 to 8 inches. Squeeze the soil. If it holds together and is not sticky, soil moisture is adequate. If the soil does not stick together and crumbles, it is too dry and water is necessary. At each watering, wet the soil thoroughly to the base of the root system.

Mulch Mulch not only looks good and helps keep weeds down, it also keeps soil moisture and temperature more evenly regulated. Mulched planting beds will reduce the amount of water required to keep plants healthy. Mulching works well on hardy plants. The more tender the plant (e.g. annuals, perennials) the more care must be taken to ensure plants are not smothered.

Just because the mulch looks dry doesn't mean the soil underneath it is dry. Pull back the mulch and determine soil moisture as indicated above.

Seasonal adjustments Cool spring weather requires different watering routines than hot, dry weather. Watering recommendations in this pamphlet assume moderate, warm weather. Rainfall and cool weather may change the suggested watering timeframe of twice per week to once per week, while dry, hot weather may require three or more waterings per week.

Installation timeframe Spring installations require more diligence during the first summer of the planting because the root establishment period for the plants might only be a few weeks. A fall planting will likely require less water, generally due to increased rainfall and cooler temperatures. The first summer for fall-installed plants may not require the same frequency of watering because root development will be more extensive.

Any new(er) planting is susceptible to drying out during the winter. Fall-planted stock does demand extra attention. Plants may not have enough time to establish a good root system before winter. Cold winter winds and sunshine cause plants to lose water from their branches or remaining leaves, and the roots must be able to replenish that water if plants are to survive the winter. Evergreens, particularly broad-leafed evergreens, are more susceptible to winter desiccation because their leaves have more surface from which to lose water than narrow-leafed evergreens and bare trees and shrubs.

Timing Watering in the morning is preferred to watering during the day or night. Daytime watering is less effective due to evaporation. Excess moisture that is not absorbed into the soil during the morning watering will evaporate, keeping plants from being too wet during the day or into the night. Overhead irrigation, which wets the leaves and the entire plant, should have time during the day to evaporate so that leaves do not stay wet throughout the nighttime hours.

One inch is all it takes One inch of water per week is the rule of thumb. Using a rain gauge to determine the output of your sprinkler will allow you to know if you've put down the right amount of water.

Set up several rain gauges in your lawn or bed areas to be watered. Measure the amount of water your overhead sprinkler emits and determine how much time will be required to reach 1 inch of water. If there is no rainfall, you will need to apply at least 1 inch of water per week to your landscape. It may be best to apply the water in two or three applications as opposed to all at once. If there is rainfall, monitor the soil moisture and add as needed. Individual plants that are under larger tree canopies or in microclimates may need additional watering even if it rains.

Drooping leaves Generally a drooping leaf will mean that a plant needs water. However, plants will also droop their leaves if they are starved for oxygen, which may be the case if they have been over watered and the soil is saturated. If you see leaves drooping check the soil to see if it is truly dry. Sometimes small shrubs will become over watered near annual beds that are irrigated by overhead sprinklers. Never assume the plant needs water just because it's losing leaves and drooping.

Puddling Puddling occurs when the soil has become saturated and cannot absorb water at the rate at which it is being applied. If using a watering wand, water from plant to plant, allowing it to soak in and then return to each plant multiple times to apply enough water. Using an overhead oscillating sprinkler will apply an even amount of water, but if left on for too long may cause puddling.

Over watering Too much water has the potential to cause multiple problems in the landscape, such as root rot and foliar diseases. Over watering may also reduce the amount of oxygen in the soil, which will damage plants. Make certain the timing patterns of lawn irrigation systems are not overlapping into plant beds when watering the lawn or flower beds.

Evidence of too much water includes drooping leaves or puddling as described above, as well as squishy soil. Check the soil moisture to determine if the soil requires watering.

Plants in pots All types of plants may be installed in a container of some sort. Soil tends to dry out in containers more readily. Therefore, depending in part on the size of the container and the number and type of plants in the container, more regular watering may be necessary compared to plants in the ground.

Hot Hoses Hoses left out in the sun, and in particular left on pavement, will hold hot water. Be careful not to water delicate plants with the hot water left in the hose, as it will burn plants and cause damage. Before watering delicate plants run the water until it becomes cool.

Equipment Refer to the "Proper Watering Equipment" sheet for an overview of different types of watering equipment.

Irrigation systems In-ground irrigation systems can provide a false sense of security when watering. Although they are helpful because they reduce labor and provide more regular watering, be leery of depending on the irrigation system to do all the work for you.



ANNUAL FLOWERS

Newly planted (*less than three weeks in the ground*)

Water every one to two days in the absence of rain, letting the soil dry between watering. Water so that the top one to two inches of soil are moist. Annual beds are porous and will absorb water quickly. Over watering will compact the soil and/or cause soil to run off from the bed.

A second watering may be needed each day for certain types of plants or if they are newly planted in hot weather. If the plant leaves begin to droop, they are much too dry and damage is being done to the plant.

It is beneficial to fertilize your annual planting in the first two weeks by spraying the flowers with Miracle Grow plant food. Applying a granular product through the hose every two to three weeks of the growing season will lead to rapid growth and continued flowering.

Established (*three weeks and beyond*)

Water as weather conditions dictate, allowing the soil to slightly dry between waterings.



GROUND COVER AND VINES

Newly planted (*less than six weeks in the ground*)

Water every two to three days with an oscillating sprinkler or hose wand to moisten the top one to two inches of soil. Ground cover is planted similarly to annual flowers and establishment is similar. Allow the soil to slightly dry between waterings.

Established (*six weeks and beyond*)

Water once every week or more if soil conditions require. If the plants have been mulched, they may require less water and might go two weeks or more without watering. Flowering vines may need more frequent watering to maintain vigor while flowering.



PERENNIALS

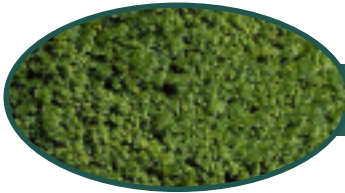
Newly planted (*less than eight weeks in the ground*)

Water every three to four days with an oscillating sprinkler or hose wand to moisten the top 2 to 4 inches of soil. After perennials have been in the ground longer, begin to reduce frequency of watering and increase how deeply you water to encourage deeper roots. By eight weeks watering may only be required once a week or less. Let the soil dry on the surface before the next watering.

Established (*eight weeks and beyond*)

Spring planted perennials will be well established by mid to late summer and will require less frequent watering. Once perennials have been in the ground over a winter, they have become well established. Established perennials may be able to go three or four weeks without watering or rainfall. Some perennials will withstand drier conditions better than others.

Monitor moisture levels for the first year more carefully to ensure plants are not over or under watered. After perennials have been in the ground one to two years you can stretch out the watering intervals to the point when the plants are just beginning to stress. Allowing the plants to stress for too long may reduce overall plant vigor and health.



SHRUBS AND WOODY ORNAMENTALS

Newly planted (*less than eight weeks in the ground*)

Water once or twice a week either by overhead sprinkler or by hand with a hose wand. Shrubs will need one to two gallons of water per watering at the base of the plant, under the drip line of the shrub. Soak the soil under the whole plant, not just at the trunk of the shrub.

Established (*eight weeks and beyond*)

Continue to monitor for moisture regularly and in times of drought stress. Water as needed in drier, hotter weather, perhaps once a week. Once plants are established and in the ground for more than one year you may not need to water them unless it is extremely dry and/or hot. Available rainfall should be sufficient for most shrubs once they have been in the ground for more than one year.

Some plants, like the hydrangea, are good indicators of soil moisture as they will often show leaf droop before other plants show signs of drought stress.



TREES AND LARGE SHRUBS

Newly planted (*less than twelve weeks in the ground*)

Water once a week for the first eight to twelve weeks (if sufficient rain is not present) with a second watering during hot, dry summer months if necessary.

The larger the tree or shrub that is planted, the more water it will require to soak into the root ball and surrounding soil. Use the following guideline: One gallon of water for the plant and one additional gallon of water for each caliper inch of the tree. A 3-inch caliper tree will need four gallons of water with each watering while a 1-inch caliper tree would need only two gallons of water.

The use of a Tree Gator or a five-gallon bucket with small weep holes drilled in the bottom will ensure greater accuracy when watering and ensure a slower, deeper application of water with minimal evaporation.

Established (*twelve weeks and beyond*)

Continue to monitor for moisture during the first year. During times of drought or extreme heat, water according the guidelines above.

Deep, slow watering is best.