

# **Watering Guidelines for Successful Plants**

by **Chris Kennedy, MCH**

Watering your plants appears to be such a simple concept on the surface, but literally and figuratively it is a much deeper topic. We are all taught around pre-school age that water and sun are the key ingredients in growing plants. However, as we mature into adulthood we begin to own our own plants and understand the responsibility involved. While it may not be as important, the maintenance and responsibility involved has similarities to caring for a child, pet or a home. Water is the key element in growing plants successfully and supplying the right amount of water almost always requires some degree of human involvement. Similar to a child, pet or home, the maintenance does not always happen on your schedule. I like to tell our customers, your house plants usually do not want to be watered every Sunday night at 7 pm. They want to be watered more or less often depending on the conditions. Soil, temperature, humidity, length of day, available sunlight and wind all factor in to how frequently our plants need water. Younger plants require more attention similar to a child or a pet. As they mature they require less care, but they should never be abandoned.

## **When to Water Outdoor Plants**

Plants need moisture all year round. You should be aware of any time we have a stretch of weather that does not include any significant precipitation. Soil moisture determines if it is time to water a plant or not. Check the soil for moisture by reaching your finger into the soil two knuckles deep or use a moisture meter. If the soil is moist, leave it alone. If it is dry, give it a good thorough watering. As far as time of day, it does not matter much when using a hose with a watering wand nor does it matter when using a soaker hose or drip irrigation system because the water is not touching the foliage. If you are getting the foliage wet using an irrigation system or some type of sprinkler, the best time to water is the beginning of the day, just before or as the sun is rising. If the foliage gets wet, it will quickly dry off. Also there is less evaporation when the sun is low in the sky. Watering in the middle of the day using a sprinkler or irrigation system is not as efficient. A lot of water evaporates and is wasted. It is not a good practice to water at the end of the day or when it is dark because the foliage will remain wet all night. The longer water sits on the leaves of your plants, the more risk there is for plants and the lawn to have fungus and disease problems. If for some reason you are forced to make a choice between watering at the wrong time of day or the plants being wilted and stressed because of lack of water, choose to water your plants.

## **How to Water My Outdoor Plants**

There are many ways to water your plants. The best way to water plants is by hand. Water needs to reach the roots of the plants. But of course! There is no better way to know water is reaching its destination than by supplying it personally by hand. It has a side benefit of an giving you a reason to be in the garden monitoring plant performance and to find pest and disease issues before they become worse. For hand watering, I like to use a hose with a watering wand attached to it on the end. I also like to have a shutoff at the beginning of the wand so I can control how fast the water comes out. The attachment at the end of the wand slows down the water and diffuses it. The wand also lets me get the end of the hose close to the soil surface and under and around the foliage of the plants without having to bend over. Keeping the water off the foliage is a good practice because it cuts down on fungus and disease. I usually run the water at the base of each plant for about a minute or two. Use the shutoff to slow it down if need be. As the water soaks in I might move on to the other plants in the area, before too much water runs

away, and then come back and water the same group of plants several items over until it totals a minute or two per plant. For a tree, I might turn the hose on just enough to trickle out the end and then I will leave it at the base of the trunk for a half an hour or more to give it a good soak. For big trees I might do this in several places around the drip line. A sprinkler attached to the end of a hose can be a good option as well. Sprinklers do a good job of saturating the soil in an entire area, similar to what an irrigation system would do. See more on irrigation systems below. Sprinklers are effective, especially when the soil is very dry. Using a sprinkler takes longer than watering by hand, but it allows you to walk away and do something else. I usually leave the sprinkler on each area for about 25-50 minutes depending on how big an area I am trying to cover. Be careful to make sure plants or structures are not blocking the path of the water that is intended to go to any the plants in the area you think you have watered. Most sprinklers sit on top of the ground or can be spiked into the soil so they don't move. I also like to use the sprinklers that sit on top of a tripod. They sit up higher and cover a bigger area so the water goes over the top of plants and acts like rain. Avoid using sprinklers too often, because they wet the foliage. Soaker hoses are a type of hose, usually made of ground up recycled tires. The water seeps out the tiny holes all along the length of the hose, instead of the end. Soaker hoses can be a good way to water plants without getting the foliage wet. See more on soaker hoses below.

### **Irrigation systems & Soaker hoses**

People have thought of all kinds of ways to keep their plants watered. Irrigations systems are becoming very popular. They often work very well for watering lawns when they are programmed and maintained properly. However I cringe at the thought, when I hear customers tell me they have an irrigation system that waters all of their plants. Right away I worry that because they have a system they don't have to be concerned about the watering. Don't let irrigation systems take human thought and common sense out of the equation. I do not want the take home point to be that all irrigation systems are bad. The point is that when people use these devices to water their plants they often assume they are working perfectly and do not actually witness the water going into the soil around every plant. In fact, with drip irrigation systems they are often buried below the mulch or soil surface by design so we purposely don't see them and therefore it is hard to know if they are doing their job. It is very important to check to make sure all the heads and hoses are working. If they run at odd hours of the day you should run each zone manually to check it. This should be done on a regular basis, the more important the plants are to you the more often you should check. It is especially important during hot, dry stretches of weather. Check to see if the water is actually reaching all the plants in the area they are intended to hit. It is good to check more often when during periods when plants grow the most. Sometimes one plant can block the path of the water intended for another. As the weather conditions change, review how the clock is set. I discover systems are often set to come on too frequently and for not enough time. Irrigation coming on every day is usually too often. The goal is to stretch out the time you can put between waterings without causing stress to the plants. In other words, less frequent watering, using more water is the best practice for all mature lawns and plants. Once or twice a week can be enough for mature plants. This deep watering method helps train the roots to go down deep to get water, instead of waiting for the water at the soil surface. Deep roots are typically healthier and resist drought (and water bans) better. The soil surface is the first to dry on a hot sunny day and that is not where you want your roots to be if the systems shuts off or there is a water ban.

When trying to grow new grass seed it will require running the system several times per day for short periods so it keeps the seed at soil surface moist, but not too much water to wash the seed away. For example you might run it 3-4 times per day for 5-10 minutes. If you do not have an irrigation system, you can accomplish this using a hose with sprinkler and a timer

attached to the faucet. Ask us at Kennedy's for more details on tips for growing grass seed. You only want to water this frequently until all the seed has germinated and you want to gradually go back to the rule of less frequently using more water per application.

The only other thing that makes me cringe more to hear that someone's new plants are being watered by an irrigation system is if they are using a soaker hose. Soaker hoses can be effective, but we also see a lot of problems with them. Remember the pressure is not as good the further away from the spigot you run a soaker hose. The plants furthest away can often get significantly less water than the ones at the beginning of the hose, especially if they are running up hill. Don't trust them as your only source of water because you cannot easily see the water and it is hard to know the plants are getting watered evenly. Test them!

With newly planted plants don't take the risk of relying on irrigation systems or soaker hoses. If the new plants go too long without water they will be stressed or even die. There is no replacement to standing out there watering your plants by hand. Please follow the instructions below for newly planted plants. If you own an irrigation system or have a soaker hose I would still use it (assuming you check it) because it saves you time, which few of us have enough of these days. However, try to get out there and hand water once a week, especially during dry stretches because at least you can see the water reaching every plant.

### **Newly Planted Plants**

Newly planted plants require more attention from you because the root system has not had a chance to grow and develop its independence. New plants should be checked for water by using your finger or a moisture meter on a daily basis. At Kennedy's, we recommend to water newly planted plants 1-3 times per week. That is a little vague, but it based on many factors. If they are planted in sandy well-drained soil and the weather is again hot, dry and windy, they need to be watered as often as every other day in the beginning. In rare situations, every day may be needed, but only for the first week or two. If we get a stretch of cloudy, overcast or rainy weather, then one time per week may be sufficient. In the short term, it is hard to overwater plants, but overwatering can be a problem in the long run. Overwatering, which usually leads to root rot, is more prone to happen when the soil consists of clay and the excess water drains away slowly or not at all. To test the drainage, dig a small hole and fill it with water. If it drains quickly within a few seconds or minutes, then the drainage should be fine. If it fills with water and stays that way for more than a few minutes or hours you will have to be very careful not to overwater your plants. It may even be necessary to build up your soil to bring the roots above the soggy soil. Ask a Kennedy's expert for details.

### **Lawns**

Irrigation systems are most beneficial for your lawns, if used properly. If you are determined to keep your grass green in the summer, an irrigation system makes a huge difference. Be sure to adjust the system seasonally to account for length of day and weather conditions. Generally in the spring and fall, the system should not be running as much as it is in a hot summer. Some systems have moisture sensors that keep the systems from coming on when the soil is wet. These are generally a good idea and investment that saves water. Types of grass you have growing in your lawn can also be a factor. For example, if you buy Tall Fescue seed, it will tolerate dry summer conditions better than other types such as Bluegrass because they have a deeper more extensive root system. It is typically less stressed than other type of lawn grass during dry stretches. Tall Fescue is also known to resist insect damage that occurs in many lawns

during the heat of summer. Most systems should be no less than once per week and not more often than every other day. To conserve water, lean towards the former.

## **Outdoor Plants in Containers**

Plants in containers rely much more on you because the roots cannot reach out into the soil and find ways to get moisture on their own. They should be treated much like a houseplant, but checked as frequently as possible, especially in hot, sunny, windy conditions. The bigger the plants are vs. the size of the pot is also a factor. As the plants grow, so do the roots, so a big plant or a lot of plants in a small pot mean you will be watering more often for the plants to do well. Unlike houseplants, it is more likely outdoor plants in containers dry out, especially in sun, than become overwatered. This is why more people experiment with different soil ingredients such as moisture retention crystals. This will cut down how frequently you have to water your container plants, but be careful to read the directions and not use too much of it. Compost added to most potting soils will increase moisture retention naturally.

## **Houseplants**

First of all, make sure there are drainage holes in the bottom of the pot they are planted in. There are a few exceptions, but most plants require ample drainage so the roots can literally breathe. The basic rule for houseplants is check the soil with your fingers (2 knuckles deep into the soil) to see if the soil is moist. If the answer is “yes the soil is moist”, then typically a plant can wait another day before you need to even check it again. If the answer is “the soil feels dry” then it needs a good soak. The best way to give the plant a soak is to water it until water pours out the bottom of the drainage holes at the bottom of the pot. The idea is to saturate the soil so every nook and cranny of the soil gets wet. If you just water a little each time, some soil areas and roots never get watered and they will suffer. With house plants, many of us worry about the excess water draining out will cause a mess or damage to floors or window sills. My solution is to take the plant to the sink or the tub and let the excess water run down the drain, instead of all over your floor. If the plants are potted directly into a heavy decorative pot, it may make it impossible move it every time you water. Try to avoid this situation by leaving them in the plastic pot they arrived in or re-pot them into a bigger plastic pot. Then find a decorative pot that is a little bigger than the plastic pot so it looks nice. When it is time to water and take the plant to the sink or tub, leave the heavy decorative pot behind. Another tip is to avoid overwatering your houseplants. In winter, more often than not, people over water their houseplants. The length of day (sunlight) is shorter, and we are stuck inside more due to the cold, so we “remember” to water more often. Follow the above instructions and you should be fine with most plants varieties. There are a few plants that can tolerate and appreciate more frequent watering and actually prefer being consistently moist, such as African Violets.

## **Watering Too Much or Not Enough?**

How do you know if you are watering your plants well? Sandy soil is essentially soil made of large particles that have big air spaces between them. Water flows freely through sandy soil. It is hard to give the plant too much water when the soil is sandy. Usually the excess drains away quickly. It is more likely your plant will suffer from lack of water in sandy soils. Clay soil is much more difficult because the particles are so small they pack together. Packed clay soil does not allow the water to drain through very quickly. It essentially creates a pool of water below ground. The roots of your plants need to breathe and if the water doesn't drain before you water it again, the roots start to rot. The signs of too much water often include yellowing,

browning or blackening of the leaves usually started at the tips and edges of the leaves, but can be noticeable in the veins too. They often wilt but do not respond after they are watered again. The symptoms of lack of water can unfortunately be very similar. With lack of water the leaves can also turn yellow or brown, but not usually black. They also wrinkle and turn crispy and brittle at the tips. Sometimes the leaves sit back and respond to being watered. It is possible to save a plant from either too much water or from not enough. However, think of it in human terms. If you did not eat food for three days, you cannot eat three days worth of food in one day to make up for it. You just need to try to alleviate the stress by watering the plant properly from that point forward. Good Luck!

Please talk to an expert at Kennedy's to get answers to any further questions about watering.

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