

# Watering Basics

## Symptoms of Overwatering

1. Bluish green mold growth appears on the soil surface.
2. There is an increase in seedling or plant diseases and seeds germinate poorly.
3. The number of slugs feeding on leaves increases.
4. Growth slows because there is less air in the soil and roots need to breathe.
5. Leaves may turn yellow or have numerous yellow splotches. They eventually fall off the plant. If several leaves turn yellow at the same time, the likely cause is overwatering, cold drafts, or air pollution from a heater vent or unvented burner.
6. The most cruel symptom—wilting—appears. Guess what most people do when they see wilting?

## Variables Affecting Watering

1. The more sunshine plants receive, the more water they will need.
2. The more venting you do to cool the greenhouse, the more water your plants will need.
3. Different plants have different watering requirements. For example, cacti need less water than most plants (You knew that, right?). Seedlings and seeds trying to germinate need steady moisture and must never dry out. They should be constantly moist but not dripping wet or drowning in mud.
4. Clay soils and soils very high in organic matter (including most commercial potting soils) require less water than do sandy or well-drained soils. If you are growing in beds, it is always a good idea to get your soil tested to find out what type you have and what it might need. Check with your county agent for instructions.

## Testing Soil For Watering

The first step in watering is to use your fingers instead of your eyes. You can feel the moisture level in a bed or a pot easily by just poking your finger into the soil surface an inch or so. With a little experience you'll be able to tell when a plant needs water. For larger growing beds, you may want to try the ball method of testing the soil for moisture. This is especially good for people new to greenhouse gardening. First dig one inch under the surface and grab a handful of soil. Form a small 3-inch (8 cm.) diameter ball out of this soil with your hands. Then try tossing the ball from hand to hand.

If the ball...is powdery and dry and won't form a ball, then water your plant.

If the ball...falls apart easily when tossed into the air, then water your plant.

If the ball...falls apart, but only after a few tosses, then don't water. Maybe tomorrow.

If the ball...doesn't fall apart, then don't water. Wait a few days.

If the ball...doesn't fall apart and water can be squeezed out in droplets, then you got carried away and overwatered. Hold off a day or more and try to perfect your technique.

One note on the ball method: be aware that soils high in sand tend to fall apart more easily than other soils, so take into account how wet the soil feels to the touch. Experience is the best teacher and, over time, you will have a ball (pun intended) getting a real feel for it.

Watering can nozzles should be removable for cleaning as they often get plugged up. When you need to do a major watering, a watering can may be a tedious way to go about it. It is probably much better to use a hose. The first step is to purchase a high-quality rubber hose. Keeping it off the ground will help prevent the spread of disease from the ground. Consider getting a hose winder from your local hardware store, garden center, or greenhouse supply company to help keep the hose tidy and out of the way. Or you can also use an old tire rim to wind the hose on, but it takes a bit more effort than the real hose winder.

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The type of hose nozzle you use on the end of the hose is all-important in greenhouse watering. A few quality nozzles are the most important equipment purchases for your greenhouse. Much of this is personal preference, but to head you in the right direction I will suggest a couple of specific nozzles.

The two good nozzles to have on hand include a misting nozzle and a water-breaker nozzle. A misting nozzle produces a fine mist and is ideal for starting and growing small seedlings or light winter watering. One brand name that is commonly available is Fogg-it. This type of brass nozzle is used by professional growers and is available in different sizes, including “heavy mist,” which puts out around 4 gallons (15 liters) of water per minute, and, on the other end of the spectrum, “super fine mist,” which puts out only ½ gallon (1.9 liters) of water per minute. There are also two sizes in between. You may want to have an assortment of these nozzles for different situations. These nozzles run around \$10-15 each. If you have only one Fogg-it nozzle, I would suggest the “fine mist” nozzle. It puts out around 1 gallon (3.8 liters) per minute and is great for seedlings.

Another favorite is the water-breaker nozzle, which is commonly found in garden catalogs. These are good for watering pots or beds.



water-breaker nozzle



mister nozzle