

MultiFaith GROWS

Basic Garden Watering Tips/Strategies

If there is one important concept that is fundamental to watering it is to water deeply. The majority of plant roots grow most abundantly where the most moisture is available. So if moisture is available and more consistent at a deeper level in the soil, the roots spread out and grow downward where there are more nutrients. You also water less frequently because it takes moisture much longer to wick up and evaporate out at the surface. If plants are watered shallowly then roots grow upward to reach that moisture. Since the top layers dry out faster, roots are smaller and can experience extreme cycles of moisture and dryness. This causes plant stress which results in smaller sized vegetables (also blossom end rot in tomatoes) and lower yields. Stressed plants are more susceptible to diseases and insect attacks. There is balance between too wet and too dry which you will have to determine for your particular garden microenvironment. Do not over water; plants do not like to sit in mucky or overly wet soil for long periods of time.

1. Seeds and seedlings need to be kept constantly moist

- i. The seed's hard outer layer must soften over time so the seedling can break through
- ii. Seedlings roots are very shallow and prone to drying out –deep watering encourages deeper rooting

2. Water in the morning (next best in the early afternoon, worst evenings)

- i. Water percolates down into the soil before the heat of the day
- ii. Moisture is already available and plants are already hydrated when they need it most in the hot afternoons—less stress –healthier, higher yielding, and tastier more nutritious vegetables
- iii. Constant evening watering promotes a cycle of stress and disease
 - a. Moisture evaporates slowly and tends to sit on plant parts

3. Water close to the ground using the proper watering utensil

- i. Use a hose wand, watering can with a rose head or slow drip system so the water is aerated enabling the water to strike the ground softly. (Water that strikes the ground hard (using a classic hose spray nozzle) does not initially penetrate but spreads out over a larger, shallower surface area. You use more water, spend more time and the water does not percolate down deeply into the desired area.)
 - a. Water absorbs better the closer to the ground it is applied (softer striking force) and does not compact soil
 - b. Splashing water sends soil borne diseases up on to plants

4. Mulch (see corresponding tip sheet for basic info)

- i. This will help to keep moisture from evaporating offering moisture consistency and less time spent watering
- ii. It will help soften the strike force of the water for better penetration
- iii. Protects lower plant leaves from getting soaked which will help inhibit mold and powdery mildew