

SOG Notebook for Urban Organic Vegetable & Herb Gardening

Eco-friendly watering to save time, labour, soil nutrients, and water.

By Rob Danforth

All plants need water but what slackens the thirst of one plant can drown another. Herbs (e.g., sage, rosemary, thyme) need cycles of wet and dry. Vines (e.g., squash, pumpkin, tomatoes, cucumbers) need constantly moist soil that never dries out – but no swimming!

Unfortunately, more plants die from drowning than from thirst. A thirsty plant goes flaccid -- the stalks and leaves droop because there is no water inside them to firm up the stalks and leaves. Some gardeners, out of guilt or panic, grab the watering can or hose, and flood the plants – remember, most land vegetables and herbs don't swim so be sure there is adequate drainage! Usually, much to everyone's relief, the flaccid plant refills with water and the stalks and leaves stand tall and firm. Drowning is more insidious as the leaves slowly begin to turn yellow, but the plant looks as if any number of problems are possible. Too much water leads to stunted growth, squash and cucumber without flowers, carrots with beards, peas like ball bearings...

If you see yellow leaves (eventually curl and go brown) first finger check the soil or potting mix 2 inches down. If it is swampy stop watering and let it dry. You may have to remove mulch or covers on containers to allow evaporation. A swampy container should be emptied, and new mix added to reduce the moisture.

For healthy plants, water as needed, not as scheduled. Water the roots only, not the leaves or fruit (wet leaves allow wind blown bacteria & fungus to cling). Water twice each watering! The first opens the dry soil in the container, and the second is the deep watering plants need. Target watering is best to save water. We water our containers by watering can to target the roots.

Watering at dawn is best. Avoid watering in full sun when evaporation is strongest and water is wasted. Watering at dusk is ok if the containers and plants are well ventilated so the breezes will reduce humidity. A night too humid can produce some rather interesting looking fungus farms in unusual colours and shapes.

Water quality: Rain water is best; tap water is fine when it warms up to



the outside temperature and it has a chance to off-gas the water treatment chemicals (e.g., chlorine or fluoride). If you do not have a rain barrel connected

to eavestrough (*Rain barrel planter & water storage container*), then a large covered container of tap water which you keep filled can be allowed to layabout long enough to off-gas and warm up.). Also, save pot run off, dilute it, and use it to water plants. It is full of nutrients (the soil in the container acts like a tea bag, and the run-off is valuable).



Water meters: A water meter can be purchased (*Moisture & pH meters*) but a finger check is handy, fast, and reliable. Check 2 inches down as the top may look dry but there may be moisture lurking just below the surface. Plants growing out of your compost (e.g., tomatoes, squash,

sunflower) are good water meters which will remind you to keep the compost moist (all composts need moisture to work). If the plants wilt, add water to the composter!



Absentee watering for containers (pots, box beds, cold frames): there are various terracotta or plastic plugs that can fit 2 litre pop bottles or wine bottles and release water slowly as the container needs it. (*Terracotta Plug + Wine bottle*) There are also ornate glass balls on stems for

watering or terracotta syphons which use a water filled bucket of any size you choose; the position of the bucket (above, on the level, or below the plant) determines the rate of water flow. I used two syphons and one bucket to keep an in-door tomato moist while we were on a winter holiday.



(*Syphon & water bottle plugs / Drip syphon at work / Drip plugs + 2 litre bottles*)



(*Terracotta & Plastic plugs*)



(*French metered plug*)

You can also purchase an automatic watering system with tap lines going to each container.



(Auto watering tap line

Tap line with adjustable flow)

However, remember that not all plants need the same amount of water. You will need a system with lines that offer various flow rates. I have seen a single flow rate watering system that served 10 large pots – three pots went swampy and plants drowned; one pot got no water since the line plugged.

Also, if the hose bursts or a fitting lets go, the running tap could waste a lot of water while you are away.

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