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Texas A&M System
Denise S. Rodriguez, M.S. - County Extension Service
301 Manny Martinez Senior Dr., 2nd Floor, El Paso, TX 79905
915.771.2354 http://elp.tamu.edu/horticulture

Self-Watering Containers

Home-made self-watering containers provide a practical and economical solution to a common dilemma that gardeners face…….how to provide consistent moisture to plants in containers for an extended period of time.

Self-watering containers can be any size and shape. They are the perfect answer for the gardener who is short on time but long on passion for gardening. The concept is ideal for plants that require moderate and steady moisture. Plants that require little water will do better in traditional containers. The self-watering container described here is a simple idea consisting of two containers of the same size. One is a Reservoir and one is a planting container. The Reservoir is filled with water via a fill pipe that extends down into the Reservoir from just above the surface of the soil. An overflow hole on the side of the Reservoir bucket prevents overwatering. When water oozes out of this overflow you know you have watered to capacity.

By basic osmosis, as the soil dries out, it draws water up from the Reservoir thru a wicking basket that is filled, along with the rest of the planting bucket, with damp planting soil. The soil wicks water from the Reservoir allowing the plant to absorb water as needed. This is a much more natural way for plants to absorb water as opposed to being watered from the top. There is no worry of overwatering. As long as the Reservoir remains filled, the plant won't stress from lack of moisture. To help control mosquitoes breeding in the water Reservoir, a couple of drops of oil can be added to the water when refilling.

The long term exposure of direct sunlight on plastic containers can cause them to become brittle, shortening the life span of your self-watering container. Shading the containers or even painting can help them last longer.

Directions for the home-made self-watering container described above are included on page 2. For more information on self-watering containers, search on-line for "self-watering containers"

Constructing a Self-Watering Container

Materials List:

2 matching clean, 3-5 gallon plastic buckets (Planter and Reservoir buckets)**

1" PVC pipe, 2 feet long (water inflow pipe)

1 - 16 oz. clean, sturdy plastic cup, deli container or paint container that has a good lip around the top edge; nest 2 cups if using Solo-type cups (wick)

1 - 16 oz. clean plastic drink bottle (funnel for the water inflow pipe)

Keyhole saw, sharp knife or scissors

Soldering iron

Drill with ½" & ¼" bits

Permanent marker

Duct tape, packing tape or hot glue

8" plastic zip tie

Spray Paint (optional)

**White bakery buckets, construction sheetrock compound buckets, food co-op buckets and cat litter buckets are ideal choices.

Directions:

1. Designate one bucket Planter and the other bucket Reservoir; insert the Planter bucket inside the Reservoir bucket until it seats comfortably.

2. Mark a point on the outside of the Reservoir bucket that is ½" below the bottom of the Planter bucket.

3. Using a ½" drill bit, drill a ½" hole on the mark on the side of the Reservoir bucket, creating the overflow hole.

4. Using the keyhole saw, sharp knife or scissors, cut out a 3 ¼" diameter hole in the center of the bottom of the Planter bucket. Create a 1 ¼" hole in the bottom of the Planter bucket that is ½" from the side for the 1" PVC pipe to fit through.

5. Drill several ½" drain holes evenly spaced all around the larger hole on the bottom of the Planter bucket.

6. Using the soldering iron, create several 1/2" holes evenly spaced into the sides and bottom of the cup starting 1½" from the top edge of the cup. If using Solo-type plastic cups, nest two together before creating holes. This allows water to wick up through the cup.

7. Slide the PVC pipe through the 1¼" hole in the bottom of the Planter bucket so that it stands straight up and down with its bottom end resting on the bottom of the Reservoir bucket. Mark a point on the PVC pipe that is 4"above the top edge of the Planter bucket. Cut the pipe to length on this mark **at an angle** and reinsert it back into the 1¼" hole in the bucket, angle cut down, so that its rests on the bottom of the Reservoir bucket.

8. Using a ¼" drill bit, drill 2 small holes on the side of the Planter bucket where the PVC pipe stands, ½"-1" below the top edge of the Planter bucket. Insert the 8" plastic zip tie into these 2 holes and tighten to form a loop size that allows the PVC pipe to slide in and out easily.

9. Cut the 16 oz. plastic drink bottle in half crosswise to create a funnel and insert the drink end of the funnel into the top end of the PVC pipe. NOTE: The drink end may insert, may match up or may slide down over the PVC pipe. Secure in place the bottle to the pipe with tape, or hot glue. This will become the water fill inlet.

10. Paint or decorate the planter if desired.

11. With the Planter and Reservoir buckets seated inside each other, the cup(s) (wick) seated in the center hole of the Planter bucket and the 1" PVC pipe inserted through the plastic zip tie loop and resting on the bottom of the Reservoir bucket, you are now ready to fill your self-watering container with damp planting soil.

12. Plant as desired and fill the Reservoir bucket through the PVC pipe. Your plant will wick water as needed. Add water every three to four days until water comes out of the overflow hole on the side of the Reservoir bucket.

Compiled by El Paso Master Gardeners Beverly Clark and Jan Petrzelka.



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