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AGRILIFE
RESEARCH | EXTENSION

SAVING FROM A RAINY DAY
Making a Rain Barrel

URBAN WATER PROGRAM

Rainwater harvesting is an innovative approach of capturing free water. You can save money by collecting and storing rainwater to irrigate your trees, shrubs, flower beds, house plants and containers. A quick and easy way to do this is by constructing a rain barrel.

Material List

- (1) Large garbage can or 55 gallon food grade poly barrel
- (1) 3/4 inch outdoor faucet or hose bib
- (1) 3/4 inch female threaded PVC pipe adapter
- (1) Roll window screen/insect fabric
- (1) Tube of pipe goop or silicone sealer or Teflon tape
- (4) 1/4 inch screws to attach screen to lid
- (4 or 6) Cinder blocks to keep barrel off the ground
- Rain gutter downspout elbow or 2 flexible downspouts
- Optional: For overflow, 2 inch elbow and adapter and 2 foot 2 inches of PVC pipe

Tools

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|--|-------------------------------|
| Jig Saw, Jab Saw or Dry Wall Saw | Power Drill |
| 1 inch Spade Bit or Hole Saw/cutter | 2 inch Hole Saw |
| 2 Pipe Wrenches or channel locks | Level |
| Screw Driver or drill screw driver bit | Scissors to cut screen/fabric |
| Hack Saw or PVC Pipe Cutter | Tape Measure |

Barrel Preparation

1. Use a recycled food grade opaque container (the 55 gallon blue barrels are available at Russell Feed Stores and Marshall Grain) or a heavy garbage can. Clean the container.
2. Close to the bottom, drill or cut a 1 inch hole for the faucet.
3. Apply silicone sealer or pipe goop to faucet threading (around the outside).
4. Screw the faucet thread into the barrel and attach the faucet using the 3/4 inch female PVC adapter. This may require 2 people, one holding the adapter on the inside of the barrel and one on the outside holding the faucet. Use Teflon tape, pipe goop or silicone caulk on the faucet threads.
5. Near the top of the side of the barrel, cut a 2 inch hole. Cover the 2 inch hole with window screen secured with pipe goop or silicone sealer. This screen will keep mosquitoes and other insects out of the barrel. OR use the 2 inch elbow, adapters, and 2 inch PVC pipe to create a down spout.

Texas A&M AgriLife Research
and Extension Center at Dallas
17360 Coit Rd, Dallas, TX 75252
(972) 952-9671 Office
(972) 952-9216 Fax
Email: urbanwater@tamu.edu
<http://dallas.tamu.edu>

SAVING FROM A RAINY DAY

Making a Rain Barrel (Con't.)

6. Cut a 6 inch hole in the lid of the garbage can or barrel lid. Use the drill to create a hole large enough for the saw blade.
7. Cover the 6 inch hole in the lid with window screen secured with pipe goop and screws. If the rain barrel is going to sit under a roof valley, place the window screen over the entire top of the barrel and secure with a strap.
8. Level the soil where the barrel will stand.
9. Place cinder blocks and check level again. Water is heavy. The slightest lean may mean a falling barrel. Gravity is needed to run the water. If the area where you want to use the water is higher than the barrel, use more cinder blocks to raise the barrel.
10. Cut the downspout so water will go directly into the barrel. Use downspout gutter elbow (or 2) to better direct the water into the barrel opening, or use a flexible downspout to direct water into barrel. Use screws and silicone sealer at each attachment.
11. Attach the garden hose to the faucet. If you want to use a garden hose and drip irrigation, attach a 2-faucet manifold to the faucet.

Rain Barrel Location

Locate the rain barrel near a rain gutter downspout or where a roof valley sheds a large amount of water and on the side of the house where you want to use the rainwater for irrigation or hand watering.

Optional:

If you want more than one rain barrel, connect the barrels using 2 inch PVC pipe and male and female adapters. Have the water go into the first rain barrel. Use the overflow hole to attach the pipe to the second rain barrel. Have an overflow opening on the second rain barrel. Or, to increase the water pressure, make the attachment at the bottom of the barrels so the barrels will fill up at the same time and empty at the same time, which increases the pressure.

Optional Overflow:

Manifold with two hose attachments with shutoffs to direct overflow from barrel

- (1) 3 ½ foot length of 2 inch PVC pipe
- (1) 2 inch PVC elbow with threads to stick through barrel
- (1) 2 inch female PVC pipe adapter to attach elbow
- (1) 2 inch slip elbow for bottom of downspout

Rain Barrel Maintenance

Every few months check your gutters, downspout and screen to make sure all debris is cleared. At least once a year, empty and wash out your barrel. Regularly check the seal around the faucet and apply more silicone sealer if you have any leaks.

For more information on water conservation and efficiency practices for your home and landscape, as well as information on larger rainwater collection systems, visit the Texas AgriLife Extension website: <http://rainwaterharvesting.tamu.edu>.