

HOW TO: BUILD A RAIN BARREL

SIMPLE PROJECTS FOR CONSERVATION

THE IZAAK WALTON LEAGUE OF AMERICA

According to the U.S. Environmental Protection Agency, the average American family uses 120 gallons of water each day for outdoor uses, much of it for watering lawns and gardens. One way you can help ease the strain on reservoirs and wells is to build a rain barrel—a container that's hooked up to a downspout to collect and recycle rainwater. You'll even reduce your water bill and the runoff entering local storm drains. You can buy pre-made rain barrels, which usually cost more than \$100, but you can also make one yourself for half the cost.

1. Obtain the barrel

You can get used barrels from beverage bottling companies, or you can buy barrels at your local garden or hardware store. Don't use barrels that previously contained chemicals or hard-to-remove substances. Plastic barrels are preferable to avoid rust or rot.



Materials:

- 55-gallon barrel
- 5' section of vinyl garden hose
- 4" diameter screen or atrium gate (the kind used in garden ponds)
- 1/2" PVC male adapter
- 3/4"x 1/2" PVC male adapter
- 5' section of drain hose
- 1-1/4" female barbed fitting plus 1-1/4" male threaded coupling
- vinyl gutter elbow
- drill or hole saw
- router, jig saw, or coping saw
- measuring tape
- cinder blocks or wooden crate

2. Cut the holes

Drill a 3/4" lower drain hole about 1" above the bottom of the barrel. Then cut a 1-5/8" overflow hole an inch or two from the top of the barrel. Third, cut a filter hole in the middle of the top of the barrel. Do this by drilling a hole and then using a saw to shape it into a larger hole that can accommodate an atrium grate or screen for filtering out debris.



3. Prepare the site

Place the concrete blocks or wooden crate on high ground near the downspout. The barrel should be placed on top of the blocks so that it is level. Gravity powers the water flow, hence the need for height. Cut the downspout high enough so that the barrel can fit below the end. Use a downspout elbow to link the downspout to the barrel. It should be positioned to drain into the hole on top of the rain barrel.

Other tips

- Waterproof sealants and Teflon tape can be used on fittings and connections for better results.
- Rain barrels should be drained and removed during winter months to prevent ice damage.
- Search the Internet for more details or ideas on how to add features to your rain barrel.



4. Assemble the parts

GARDEN HOSE:

Screw in the 1/2" PVC male adapter to the lower drain hole. Attach the 5' garden hose to the adapter. Connect the 3/4" x 1/2" adapter to the other end of the hose, which can be made to fit a standard garden hose. This will serve as the main hose for watering your lawn or garden.

DRAIN HOSE:

Put the 1-1/4" male threaded coupling inside the barrel with the threads through the upper drain hole. From the outside, screw the 1-1/4" female barbed fitting onto the coupling. Attach the 5' drain hose to this fitting. This will direct overflow water out of the barrel; be sure to point it away from the house.

TOP FILTER:

Secure the atrium grate (basket down) or screen on the large hole on top of the barrel. Fine window screening or netting can be glued onto the grate to filter out debris and control mosquitoes.

