

RAIN BARRELS

THE MANY REASONS TO MAKE AND USE A RAIN BARREL

Plants love rain barrel water. Unlike tap water, it has not been treated with disinfecting chemicals and it generally has fewer dissolved minerals than tap water. A rain barrel also helps conserve water. Plants don't need treated tap water, so every time you water from your rain barrel you are saving tap water. It saves you a little money on your water bill, too. And it can help with awareness of the urban runoff problem. With so many hard surfaces in modern urban society, water doesn't soak into the ground during a rain like it does in a natural environment. That means we have lots of runoff that goes into storm sewers and is carried to nearby streams. This increased volume of water causes stream bank erosion, downcutting of the streambed, and urban flooding problems. Runoff also carries with it whatever lies in its path; things such as trash, leaves, fertilizer, oil droplets, and pet waste. None of which are good for the water. So by capturing some of your runoff in a rain barrel, you can reduce the amount that reaches the storm sewer and help reduce runoff pollution. Always keep in mind that one of the reasons rain barrel water is good for plants is lack of disinfection, which means that it is never for drinking. Also, rain barrel water is not recommended for use with a vegetable garden because of the possibility that it could contain harmful substances picked up from the roof.

TO MAKE A RAIN BARREL YOU WILL NEED

Barrel:

- Plastic, food-grade barrel, about 55 gallons in size, well rinsed and drained

For inlet:

- Piece of window screen
- Indoor/outdoor caulk

For spigot:

- $\frac{3}{4}$ " brass hose bibb, male
- PTFE thread seal tape, optional

For overflow:

- 1 $\frac{1}{2}$ " PVC pipe, 60" or more in length
- 1 $\frac{1}{2}$ " PVC trap adapter
- 1 $\frac{1}{2}$ " 90° PVC elbows - 2

Tools and Materials:

- Variable speed drill
- 15/16" spade bit
- 1 7/8" hole saw bit
- Variable speed jigsaw and blade
- Hacksaw and blade
- Pocket knife
- Scissors
- Tape measure
- Marking pen
- Concrete blocks or pavers
- Carpenter's level
- Safety glasses
- Ear plugs
- Dust mask
- Heavy duty gloves

First choose a downspout where you would like to collect water. A rain barrel must have a level, sturdy base, so place concrete blocks or pavers and level with a carpenter's level. Elevating the barrel on this base will give easier access to the spigot and help the water flow faster.

CUTTING AND DRILLING INSTRUCTIONS

For the inlet:

Mark a hole in the top of the barrel. Drill a starter hole just inside the circle to give you an opening into which you can insert the jigsaw blade. Using the jigsaw, cut out the hole.

For the spigot:

Using the 15/16" spade bit, drill a hole in the side of the barrel where you want the spigot to be. I like it close to the bottom to get as much water out as possible, but placement is up to you.

For the overflow:

Using the 1 7/8" hole saw, drill a hole in the side of the barrel, about 4" on center from the top, on the side where you would like the overflow to be located.

ASSEMBLY INSTRUCTIONS

For the inlet:

Using the caulk, secure the screen over the hole in the top of the barrel. The screen prevents mosquitoes, birds, and small animals from entering the barrel and it should be replaced as needed. You will need to occasionally clean the screen as it accumulates debris from the downspout. If the lid of the barrel is removable, the lid must always be firmly attached because an open rain barrel is a drowning hazard. (If the lid of the barrel is not removable, this step must be done after the trap adapter for the overflow is inserted.)

For the spigot:

Carefully screw the hose bibb into the spigot hole, keeping it as straight as possible. The tighter it fits, the fewer leaks you'll have. If you can't insert the spigot, use a pocket knife to make the hole just a little bigger. If the fit is not tight, you can wrap thread seal tape around the end before screwing it into the barrel. Use caulk to seal around the spigot.

For the overflow:

Unscrew the trap adapter. The longer threaded piece is inserted into the overflow hole from the outside of the barrel. Screw the ring onto the threaded piece from inside the barrel. Attach one of the 90° elbows to the trap adapter. Depending on the trap adapter you have, you may need a short piece of PVC pipe between the adapter and the elbow. Set the barrel into position and measure the distance from the elbow to about 2" from the ground. With the hacksaw, cut the 1 1/2" PVC pipe to this length. Insert the PVC pipe into the elbow so it extends to the bottom of the barrel. Attach the other 90° elbow to the bottom of this piece and point it in the direction you want your overflow to run. Then attach another length of PVC pipe to the bottom elbow to carry the overflow away from the barrel and away from your foundation. (Be sure to consider the amount of slope needed to let the water flow out of the pipe.)

SET-UP AND USE INSTRUCTIONS

Be sure the barrel has a level, sturdy base because it will be very heavy when full. With the barrel in place, determine the length of downspout to remove. Disconnect the downspout from the building and cut it to the appropriate length with the hacksaw. Save the downspout pieces for reinstalling in the fall when you remove and drain the rain barrel for the winter.

Rain barrel water is great for flowers, houseplants, shrubs, and trees. Rain barrel water is not recommended for use with a vegetable garden because of the possibility that it could contain bacteria or harmful substances picked up from the rooftop.

Check the rain barrel during the first rain, if possible, to make sure everything functions how you want it to. You will be amazed at how fast it fills.

