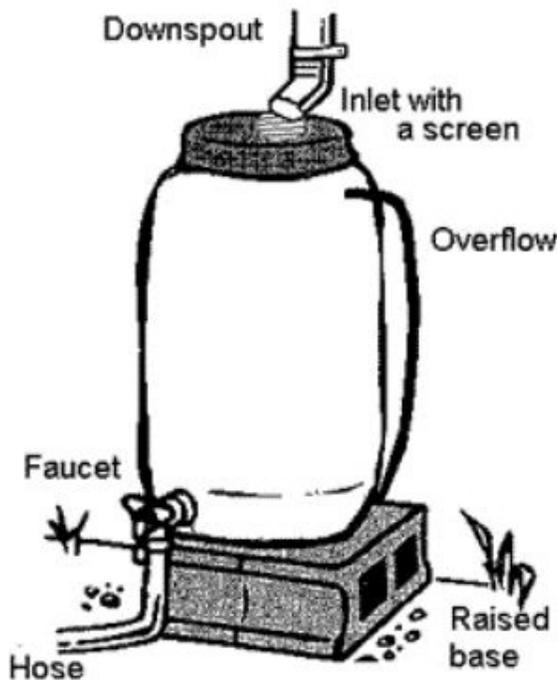


Rain Barrels: How to Build, Install and Maintain a Rain Barrel for Plant Water Use



What is a rain barrel?

A rain barrel is a container or drum used to harvest rainwater for non-potable outdoor uses as a supplement to natural rainfall and other sources of irrigation.

Why use a rain barrel?

Harvested rainwater can be used for watering houseplants, landscape plants, rinsing garden tools and keeping a compost bin moist. When you use rainwater for these purposes instead of other irrigation sources, you are conserving freshwater drinking resources, while also saving money and reducing pollution. Storing rainwater helps to reduce stormwater runoff, which can lead to lower levels of pesticides and fertilizers in stormwater ponds, lakes, streams and rivers.

Materials Needed

Basic Materials:

- 55 gallon food-grade drum
- 3/4" spigot
- PVC cement
- Window screen
- Platform Materials

Optional Materials:

- Additional spigots
- PVC pipe
- Flexible downspout extender

Tools Needed During Installation:

- 15/16" drill bit
- Electric drill

Assembling Your Rain Barrel

- Step 1:** Clean any food remnants from the barrel by using a mixture of 1/8 cup bleach and 5 gallons of water as a cleaning solution.
- Step 2:** Install the spigot. Using an electric drill and 15/16” drill bit, drill a hole approximately 4” to 6” from the bottom of the barrel. This will provide clearance when attaching a hose or filling a watering can, and prevents clogging by debris that may enter the barrel and settle at the bottom. Next, screw the hose spigot in the hole about half way, making sure the threading is going in straight. When the spigot is about halfway, apply a liberal amount of PVC cement to the exposed threads. Continue to screw in the spigot until it is snug and pointing toward the bottom of the barrel.
- Step 3:** Install an overflow outlet. If your rain barrel will be installed against the house and/or under a downspout, you will want to install an overflow outlet to divert excess water that would normally overflow the barrel to another part of the yard or into another barrel. In any case, you want to divert the excess water away from your home’s foundation.

One option is to repeat step 2 above, placing a second spigot 4” to 6” from the top of your barrel. This will allow you to connect a hose permanently to the overflow. Another option is to install a larger overflow using PVC pipe, which has the ability to divert a greater amount of water during downpours. Start by drilling a 2 ¼” hole for a 2” male adapter near the top of the barrel. A 90 degree elbow will make the transition between the 2” male adapter and a length of 2” PVC pipe. PVC cement is not needed for overflow outlets – some leakage is not a problem and you will still have the option of changing or disassembling the pieces for cleaning and maintenance later.

- Step 4:** Build a platform & install the downspout connection. Elevating the rain barrel on a platform will increase water pressure coming out of the tank. Platforms can be built easily from concrete cinder blocks or decorative landscaping blocks. The downspout to barrel connection can be done in a variety of ways. First, cut the downspout to the appropriate length and attach either the curved end of the metal downspout, or purchase a flexible downspout extender to divert water into the barrel.
- Step 5:** Control the mosquitoes. Your rain barrel can become a breeding ground for mosquitoes if not properly controlled. A simple method to keep the mosquitoes at bay is to fasten a piece of screen using bungee cords over the entire opening (or over a hole in the lid). Another method is to cut a hole that fits your flexible downspout extender so that there is no opening at the top of the barrel for mosquitoes to enter. A third option is to purchase a mosquito control, such as *Bacillus thuringiensis* (Bt) that will treat the water for 30 days or more.

Maintenance

Maintaining your rain barrel is as simple as checking for leaks and cracks (painting your barrel will help extend its life) and cleaning it out from time to time to reduce algae build-up.

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