

## Build Your Own Rain Barrel (from Winston-Salem Journal, February 20, 2014)



Tools you will need include, clockwise from top left, a jigsaw and blade, 3/8" drill, hole saw bit, Phillips screwdriver, scissors, spade blade drill bits, treaded PVC pipe fittings and valve, lay flat discharge hose, self tapping screws, garden fabric. Not pictured are food grade barrell and bung plugs.



Start with a 55- gallon food grade drum. A hole has been cut in the top to receive rain from the down spout.



A hole saw is used to drill an opening near the top for the overflow drain. Barrels can also be fitted together at this juncture if more than one is desired.



Use bung plugs, found at a plumbing supply store, to close up the bung holes. This allows for easy access to the inside.

One way to get the mosquito dunk into the water is to suspend a bag through a slit in the intake pipe so that it functions like a tea bag. This also prevent mosquitoes from breeding in the water that stays in corrugated drain pipe.



A lay-flat vinyl hose, used for washing machines, is attached to the overflow drain.

Mosquito dunks should be used as an extra precaution to keep mosquitos from breeding in the barrel.





Attach the fabric cloth with 8 self-tapping screws. The fabric will help keep organic matter and critters out of your barrel.

Use a PVC (shown) or brass at the bottom of the barrel, apply plumbers tape to help prevent leaks. Attach about six inches from the bottom to allow easy attachment of the hose and allow sediment to settle to the bottom.



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**You will need the following tools:**

- a jigsaw
- tin snips
- a drill and a hole saw or spade bit
- a screwdriver
- scissors
- self-tapping screws

**For plumbing supplies you will need:**

- ¾ inch faucet
- roll of fine hardware screen (sometimes called mosquito screen)
- Teflon plumbers tape
- 3-inch male hose adapter
- corrugated plastic downspout elbow
- vinyl tubing used for washing machines
- You will also need bungs, which are fittings that screw in openings in the top of the barrel where taps are inserted.
- It's also handy to have a tube of silicone caulk and some zip ties large enough to fit your drains.

**Directions:**

- Cut a rectangular hole in the top of the barrel with a jigsaw.
- An elbow from the downspout is positioned to bring water into this hole. Cut the hardware cloth/mosquito screen slightly larger than the hole. (Unfortunately, this cloth comes in 10-foot rolls and you only need a small piece. This material is finer than window screen and is rated for solar exposure.)
- Use eight self-tapping screws to secure the cloth to the barrel. This prevents most debris from washing into the barrel and also keeps out the mosquitoes, which breed in standing water.
- Don't have the downspout go directly into the barrel unless you have rain gutters that prevent leaf access.

- The next step is to drill a hole for the faucet about 6 inches from the bottom of the barrel. This position prevents the asphalt that typically washes from the roof and gathers at the bottom of the barrel from being stuck in the faucet.
  - Use a 1-inch spade bit to drill the hole. Wrap a ¾-inch faucet with plenty of Teflon plumbers tape and screw it tightly into the hole.
  - Your barrel won't be able to hold all the water, so an overflow drain is important. Use a 3-inch hole saw to cut a hole that is 3 inches from the top for the drain.
  - Typically 1 square foot of roof can be expected to gather 1 gallon of water during a typical rain.
  - Determine how you want your barrel to sit and where you want the drain to go to avoid any obstruction. Tape and insert the hose drain and then zip-tie the tubing to it.
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- Standing water is where mosquitoes lay their eggs and where the larvae mature until they become flying, biting adults. The most common place mosquitoes breed is in the corrugated folds of a downspout.
  - A mosquito dunk is a non toxic bacteria that kills the mosquito larvae in the water before it has a chance to mature. They come in little doughnut-shaped disks and a quarter piece will service a rain barrel. Check the manufacturer's label.
  - Use a tea-bag method to get the dunk into the barrel. Cut a u-shaped hole in the corrugated downspout elbow. Then insert the quarter piece of mosquito dunk into a small muslin bag and tie it with a long string. The bag's then inserted in the u-shaped hole and pulled closed.
  - The other end of the string is tied to the outside of the elbow. When the dunk expires, it is easily retrieved and replaced.
  - If you get rain-barrel happy you can connect the overflow to another barrel and repeat the whole process. It's a good idea to disconnect the barrels and clean them out every three or four months to prevent algae and bacteria buildup in the bottom.