

HARVEST THE RAIN



Is purchasing a rain barrel on your home gardening to-do list for this spring? You may want to consider building your own, with a little help from the new how-to guide offered by Clemson University's Carolina Clear program.

If you want something done right, do it yourself, is the mantra of thrifty do-it-yourselfers everywhere, right? And we South Carolinians know that if the project you want done concerns the home or garden, chances are good that one of the many programs offered through Clemson University's Public Service Activities division has quite literally "written the book" (or at least the pamphlet or the fact sheet) on it.

That includes building rain barrels. Clemson PSA's Carolina Clear program is actively engaged in teaching Palmetto State citizens about the importance of maintaining the health of our water resources; in particular, the need to minimize stormwater runoff into our rivers and streams — a major source of surface water pollution. One simple way that individual homeowners can lessen the impact of runoff — not to mention saving a few beans while watering their beans (and tomatoes and flowers) — is by using barrels to collect rainwater from hard surfaces such as roofs. Sure, you could go online or to the nearest big-box store and buy a perfectly good rain barrel in a designer color, but where's the fun in that? Instead, why not get in touch with your inner tightwad and build your own. It's easy, it's cheap, and yep, Clemson's even written a handy manual with step-by-step instructions to help you do

it right. The manual, and an accompanying video, are both available on the Carolina Clear website at www.clemson.edu/public/carolinaclear. (Click on the "What You Can Do" link on the left side of the page.) Carolina Clear even offers rain barrel workshops through its statewide network of regional stormwater consortiums, which is where I went to get firsthand instruction in the fine art of rain barrel 101 and a ton of great information about the watersheds running through my local area.

A rain barrel is really a very simple (and ancient) device; basically a big bucket with a spigot. But, paying attention to a few simple details during construction can mean the difference between having one that works well and one that works . . . well, like a big leaky bucket full of leaves and mosquitoes.

Step one is getting your barrel, and rule number one about that is, if you are repurposing a used one, it needs to be made from "food-grade" plastic. After all, you're going to be putting this water on your plants and vegetables, right? You don't want to use anything that's had chemicals or solvents stored in it. For sourcing used food-grade barrels, the manual suggests checking with feed supply stores in your area.



An electric jigsaw or reciprocating saw is the best tool for cutting the top opening. (Hint: start your cut in the hole where the barrel's screw-in cap used to go.)

Step two involves cutting out an opening in the top of your barrel where the water from a downspout will pour, and rinsing it out to remove any residue from what it originally held.

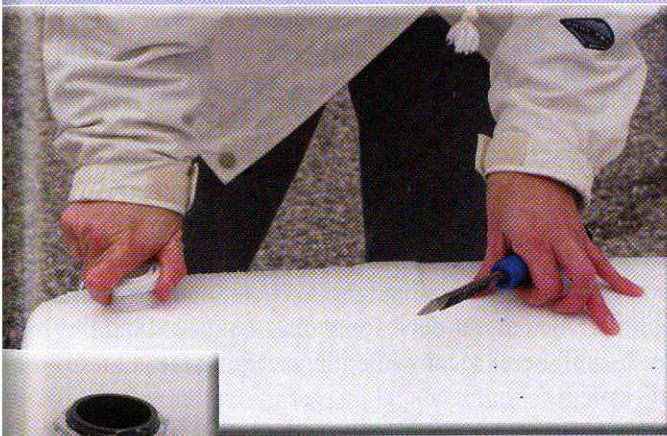
Step three involves drilling two holes in the side of your barrel — one near the bottom for a spigot, and one slightly larger hole near the top for an overflow pipe.

Hands-on Outdoors



power drill outfitted with boring bits in several different sizes will help make short work of making holes to mount the spigot and overflow pipe. (Hint: the overflow pipe needs to be large enough to take care of the flow from a heavy downpour — 2" is recommended.)

Step four involves inserting a 1.5" plastic PVC spigot bushing in the bottom hole and a 2" PVC adapter in the top hole, fastening each with a plastic or metal locknut, and then screwing the spigot hardware into the bushing and attaching an overflow pipe to the overflow adapter.



To get a nice, tight seal around the spigot and overflow, use a rasp to open the drilled holes little bit by little bit until the bushings for each hole will just fit. Then use silicone caulk around the inside of the hole for a watertight seal.

Step five — and this is a critical step — involves covering the inlet where water will enter the barrel AND the opening for the overflow pipe with fine mesh. Doing so will prevent trash, leaves and sticks from getting inside your barrel and clogging up the works, as well as preventing mosquitoes from using your barrel as a breeding facility. For our barrel, a simple bungee cord was used to secure the mesh screen on top of the barrel.



Fiberglass window screen material can be cut to fit the barrel's top opening. A small piece should also always be placed between the overflow outlet and the pipe to keep out mosquitos. (Hint: our overflow pipes were made of a flexible blue fabric similar to what tarps are made from. The material comes in bulk and can be cut to the desired length.)

That's it — cut a few holes, push in some plastic bits, screw in the spigot, cut and attach your mesh, and "Voila" — instant rain barrel — right? Well, yes and no. While the basic process is relatively simple, like with most things, the devil is in the details, and a little bit of studying and advance planning will make the difference between a raggedy, leaky, "good enough" job and a professional-looking barrel you'll be proud to show off to your friends and neighbors. And that's where the manual produced by Carolina Clear comes in. It covers basics like pre-planning for where the barrel will be situated when it's finished. (Which side should your spigot hole be drilled on, for instance — bet you didn't think of that, did you?) It also provides complete parts lists and tool requirements for three different types of barrels, advice on decorating and placing them, a discussion of their value in controlling runoff, and an overview of more elaborate water systems like in-ground cisterns and pump-assisted tanks — everything you need to harvest the rain. 🌧️

— David Lucas

TOOLS OF THE TRADE

A complete parts list that you can take to the hardware store for each of three barrel projects is included in the Carolina Clear manual, but a basic toolkit for building any rain barrel will include the following:

Materials:

- Plastic, food-grade rain barrel(s)
- Fiberglass window screen material
- Fittings for the spigot and overflow pipe assemblies

Tools:

- Reciprocating saw or jig saw (if plan requires cutting barrel top)
- Power drill with 1.5" and 2" boring bits
- Large adjustable pliers
- Rasp
- Caulking and Teflon tape
- Heavy duty scissors (to cut mesh screen)