
Tools and Materials

This is just one sample of fittings that will work.

Materials

- (1) empty food grade plastic barrel (50-55 gallon)
- (1) 1/2 hose bib for 3/4 inch hose: Male IPS (plumbing department)
- (1) Hose washer (hardware department)
- 1 - 1/2 inch conduit locknuts (electrical department)
- (1) short length of garden hose
- (1) large square of fiberglass or metal window screen
- 8 x 3/4" TPM taper points slotted HWH screws

Tools

- Saber saw
- Drill with 3/4 inch bit depending on the size of your hose bib
- Wrench to tighten locknuts
- Cordless or electric drill

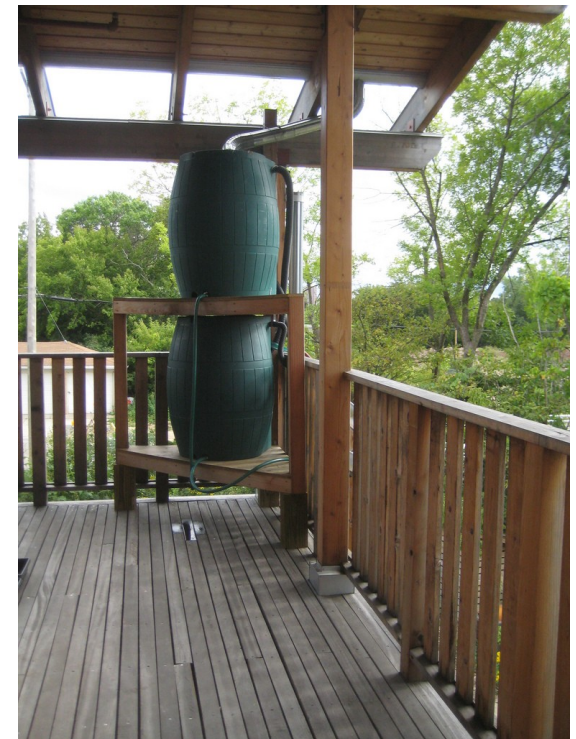
Sources of Information

Various publications from the Internet, Virginia, North Carolina and Washington State cooperative extensions and through trial and error in making rain barrels as our fundraiser.

**Danville Master Gardener Association
Danville, VA**

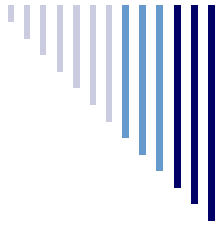
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Harvesting Rain for Your Garden



**Danville Master
Gardener Association**

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What is Rainwater Harvesting?

Rainwater harvesting is collecting rainfall.

Why harvest rainwater with rain barrels?



A huge plus to harvesting rainwater is that it's FREE!

Harvesting rainwater helps our environment by reducing the amount of household water used for watering lawns and gardens. In addition, rainwater is better for your plants because it is untreated, and it allows you to continue watering your plants during drought conditions (for a period of time).

How safe is rainwater?

Since you will be using the rainwater for watering plants, the risks are minimal. There is no need to worry about contaminants from the roof because there is such a short duration of contact.

Rainwater can be used for washing cars and for emergencies if the electricity goes out and you need to flush your toilets. It is NOT for drinking water.

How much water can you collect?

An inch of rainwater on a 40 foot by 20 foot roof will collect 500 gallons.

An annual rainfall in Virginia is 42 inches per year. If you do the math, on a 40 foot by 20 roof you could harvest as much as 20,944 gallons of rainwater in one year.

Here are some basic calculations you can do for your own home:

- Estimate the drainage area of your roof
- Estimate the depth of the rain
- Calculate the volume
- Convert the volume into gallons

Safety for and maintenance of your rain barrel

- Never use an open container due to the risk of small children and animals that may become trapped and drown in your barrel.
- Guard your rain barrel against tipping since a 55 gallon barrel of water weighs more than 450 pounds.
- Protect the water with a fine screen



over the top so that mosquitoes cannot reach the water in order to breed.

- Drain and disconnect your rain barrel in the winter since the constant freezing and thawing may weaken the material or cause cracks.
- Have a drain system for overflow but make sure that overflow is not directed to the foundation of your home.