



Rain Barrels

What is a Rain Barrel? A rain barrel is a system designed to capture and store rainwater coming off a roof, usually attached to a downspout.

Historical Use: Until the 1940s, the rain barrel was a common sight at farms and homes throughout rural America. Rainwater often was softer than well-supplied water, and wooden barrels placed under the roof edge of a barn could catch hundreds of gallons of water during a brief shower. But with modern plumbing, the rain barrel became unnecessary. Until now.

How much water will come off my roof? Will my barrel get full? One inch of rainfall on a 1000 square foot roof provides over 600 gallons of stormwater.

Using the above data, let's assume a roof has a single peak that runs the entire length of the roof and there are no other peaks or valleys. That means there is 500 square feet on a side which will result in 300 gallons of water per side in that one inch rainfall. Two downspouts that are evenly spaced on each side of a house we would have 150 gallons of water coming down each of the four downspouts. Our barrels hold about 50 gallons, assuming it is empty. So you will either need 3 barrels, per downspout, all connected together to hold that runoff or if you have fewer barrels make sure your overflow pipe is installed.

Rain Barrel Benefits:

- ◆ **Save** - Conserve water, reduce demand for treated tap water, and save money by lowering your monthly bill. A rain barrel can save over 1,000 gallons of water during peak summer months.
- ◆ **Happier plants** - Rainwater is free of the additives (e.g., chlorine and fluoride) in tap water that plants don't need or want. Rainwater is also slightly acidic, helping plants access soil nutrients. And if your city restricts watering during times of dry weather, it may be the only way to avoid having your garden wilt. The water stored in a rain barrel can be used to water lawns and gardens either with a traditional hose or a soaker hose.
- ◆ **Building protection** - Control moisture levels around the foundation of buildings.

- ◆ **Flexibility** - As water storage needs change, the number of barrels in a system can follow suit.
- ◆ **Reduced stormwater runoff** - Rain barrels can divert a limited amount of stormwater from roofs, reducing strains on urban creeks and storm sewer systems. Rivers are fragile ecosystems that are easily affected by human activities. Water and pollutants that go down a storm drain in the street go directly to the Red River, not to a waste water treatment facility. Some cities are providing rain barrels to residents in order to reduce loads on storm sewer systems. If stored water will not be used for plants or a lawn, slowly release stored water by allowing it to drain through the lower opening. Attach a hose to direct the water where you want it to flow. Make sure your barrel is empty or lowered enough to capture the maximum amount of water expected each rain event.

Maintenance:

Don't use the barrel in the winter to avoid ice damage. Drain the barrel and cover the top opening or invert the barrel and leave all faucets open before freezing weather.

Clean the screen periodically.

See a Rain Barrel: River Keepers' Living Lab, an urban riparian demonstration site, has a rain barrel on-site at 5508 South University Drive South in Fargo.

For more information:

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