

# Rain Barrels

Save Water and Money



Rain barrels save money and conserve water. The barrels help harvest rainwater for future use in lawns and gardens.

## What is a Rain Barrel?

A rain barrel is a container that helps harvest rainwater for future use in lawns and gardens. Rain barrels sit conveniently under residential down spouts to collect rainwater from roofs that would otherwise be lost as runoff and diverted to storm drains and streams. A rain barrel consists mainly of a container that holds about 55 gallons, a screen, and a hose for using harvested water. Rain barrels are relatively easy to construct, but are also available pre-made at local hardware stores. Rain barrels come in many shapes and sizes.

## Why Harvest Water?

Rainwater does not contain any minerals or chemicals. Not only does this free “soft water” help plants grow healthier, but collecting rainwater for landscapes and gardens can significantly lower the water bill. In times of extreme dryness, harvesting rain water can greatly ease water consumption between rainfalls.

Also, as rainwater travels along the ground it picks up fertilizers and other hazardous material. Porous ground and vegetation will filter out contaminants as the water sinks through to recharge the groundwater supply, but contaminated water will run off impervious substances, like pavement, into storm drains, which can flood local lakes and streams. Rain barrels collect the water that would otherwise go to storm drains and streams and makes it available to use on lawns and gardens. They can alleviate flooding and decrease the amount of fertilizers and other chemicals that make it into streams and rivers.

## Tips for Maintaining Rain Barrels:

- Do keep rain barrels covered with a screen to protect small children and animals from drowning and prevent mosquitos. Also be sure to empty rain barrels every two weeks.
- Do use a food-grade container as a rain barrel. They are meant to withstand the pressure of water for long periods of time. However, strong trash cans are also acceptable.
- Do keep rain barrels on a level platform. Barrels will tip more readily on unstable ground and they drain best when elevated.
- Do not let a rain barrel overflow for long periods of time. Over time, that can damage a home’s foundation.
- Do not use clear and translucent barrels. They speed up algae growth, which can clog pipes.



Do not use clear or translucent barrels. They speed up algae growth.



Rain barrels sit conveniently under down spouts to collect rainwater from roofs.



Decorate around the rain barrel to make it part of the house landscaping.



## Rain Barrel FAQs

**Question:** Where can rain barrels be purchased?

Answer: Rain barrels are available from many local hardware stores and they are easy to make. For information on making a rain barrel, visit [www.wmeac.org/water/rain-barrel-workshops](http://www.wmeac.org/water/rain-barrel-workshops).

**Question:** Can harvested water be used for drinking water?

Answer: No. The water will contain roof run-off and bacteria, which are not suitable for human consumption.

**Question:** Should rain barrels be stored in the winter?

Answer: In the winter, empty rain barrels and store them upside down in your shed or garage. The constant temperature change can cause barrels to crack.

**Question:** Do rain barrels need to be cleaned?

Yes, clean rain barrels periodically. Try two teaspoons of lemon juice per gallon of water as a safe solution.

## DIY Installation

Always use the correct tools and safety precautions when working on projects like this one. First, find a level spot on the ground near the gutter downspout. If there is no gutter system in place, put the rain barrel under a place where two sides of the roof meet. Then, cut the downspout of the gutter system so that it ends above the screen covering the barrel. A downspout diverter may be needed to direct water into the barrel. Use bricks or wood to make a stable platform for the rain barrel to sit on. Finally, set the rain barrel under the downspout or corner, and it is ready!

## How Much Water Could You Harvest?

By itself, a typical 1/2 inch rain will fill a 55 gallon rain barrel on a 300 square foot roof. Considering one gallon of water weighs about 8 pounds the rain barrel should be placed somewhere convenient. To calculate how much water can be collected from the roof, measure the lengths of two adjacent outside walls and include the overhang of any eaves. Then multiply the lengths to calculate the total roof collection area. As a rule of thumb, a 1/2 inch of rainfall provides about 300 gallons of water for every 1,000 feet. That's a lot of free water!

- 1 Rain barrels can harvest a lot of FREE water. Every half inch of rain fall provides about 300 gallons of water for every 1,000 feet.
- 2 DIY installation for rain barrels is easy! All that's needed is a level spot near the gutter downspout or two sides where the roof meets, a barrel and bricks or wood to make a stable platform.
- 3 Rain barrels can help alleviate flooding and decrease the amount of fertilizers that make it into streams and rivers.



*In the winter, be sure to empty and store all rain barrels upside down. The temperature change can cause barrels to crack.*



*Rainwater does not contain any minerals or chemicals, and is considered 'soft water.'*