



## Garden Tips & Techniques: Rainwater Collection

Ever heard of a rain barrel? Chances are, you've seen them around town, even if you didn't know exactly what they were. Rain barrels are large vessels that hook up to downspouts and collect the water that runs off a roof during a rain event. They provide a handy way to collect water for a garden, and they perform the important function of keeping rainwater out of storm sewers.

In cities with old infrastructure, like Pittsburgh, excess rainwater is diverted into the same system that drains sewage away from homes and businesses. An influx of rainwater can cause sewage as well as rainwater (contaminated with oil, lawn chemicals, heavy metals, and garbage) to overflow into our tributaries and rivers. In fact, Pittsburgh has more combined storm water/sewer outlets than any other city in America. These combined outlets result in billions of gallons of raw sewage enter our waterways every year, creating health risks for humans and aquatic life.

Collecting water in rain barrels keeps some rainwater from flowing into storm sewers, which means less sewage entering Pittsburgh waterways. And, rainwater in barrels can provide a useful source of irrigation for gardens. Watering a garden with collected rainwater helps to distribute the water so that it percolates slowly through the soil, rather than running quickly over surfaces, into pipes.

Rainwater is great for trees and ornamentals, and can be used on vegetable gardens if a few precautionary steps are taken to ensure its safety for edible crops. A [recent study by Rutgers University](#) examines the heavy metal and bacteria amounts present in rainwater collected at several urban and suburban homes in New Jersey. Their results indicate that heavy metal levels in collected rainwater tend to be within safe limits for irrigation water. However, bacteria counts sometimes exceed EPA regulations for irrigation water. Therefore, they recommend the following steps:

- Before initial rainwater collection, clean the rain barrel with a 3% bleach solution.
- Add 1 oz of bleach per 55 gallons to kill bacteria. Then wait 24 hours before watering.
- Avoid plant leaves when watering (water the soil, not the plant), or allow leaves to dry in the sun before harvest (UV light disinfection).

*\*Please note that rainwater should never be used to clean or process edible crops. Use only potable water for produce processing.*

Interested in installing a rain catchment system? These local groups can help:

- [Stormworks](#) (a division of Nine Mile Run Watershed Assoc.) offers rain barrels for sale and installation
- [Pennsylvania Resources Council](#) (PRC) offers workshops and rain barrels for sale
- Always use food-grade barrels. To find barrels for a DIY installation, check out these resources:

-Penn Barrels, Inc.: 412.924.0556 in the East End (around \$25/ea)

-Ralph Freger: 724.787.0759 who resells Delallo Foods shipping barrels in Jeanette (around \$6/ea)

- Gravity-fed drip irrigation systems can make watering a breeze. Check out [these options](#).

*Interesting fact:* In some arid areas of the country, it's illegal to catch rainwater (even on your own property) due to water rights; someone downstream owns that water. So take advantage of our prolific rainfall and help to manage it responsibly, with a rainwater catchment system! Your garden and our local waterways will thank you.



A rain barrel attached to a home drain spout.