

Rain Barrels

What is a rain barrel?

A rain barrel is an above-ground cistern or container that harvests and stores water, which can be used when needed. The rain barrel attaches to a gutter downspout enabling it to catch rain water from a roof. The collected rain water can be used to water plants. Rain barrels come in different sizes as well as a variety of colors to match just about any home color scheme.

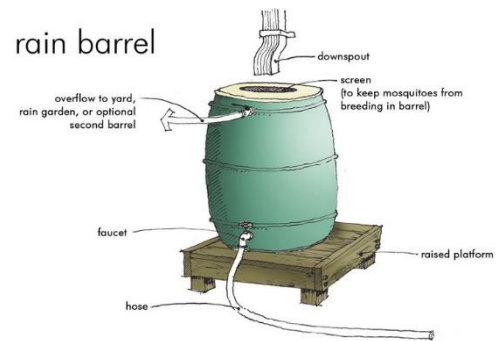


Rain barrels are a unique way to help the environment!

Reduction of water run-off: When it rains, roof water travels down gutters and often runs off lawns faster than it can infiltrate the soil. In many cases, downspouts drain directly into the street. Utilizing a rain barrel will allow the water to be stored for later use, rather than letting the water runoff the property.

Water conservation: Rainfall patterns are quite variable and often inconsistent in different areas of the country. During below normal rainfall periods, some communities have imposed water use restrictions (e.g. watering lawns and gardens, washing cars, etc.). A rain barrel, or a system of rain barrels, can provide the homeowner with a non-potable water source during spells.

Water Supply during a drought: When the weather turns dry, 55 gallons of stored water will go a long way into saving a newly planted tree or small garden.



dry

Tips for Using Rain Barrels:

- * Do not use collected water for drinking, cooking or bathing!
- * Keep the screen on the rain barrel.
- * Keep the screened opening free of leaves and debris. Mosquitoes will not be able to escape.
- * Keep the lid secure to restrict young children and animals from getting into the barrel.
- * Disconnect and drain the barrel during winter months to avoid freezing and cracking the barrel.
- * For additional capacity, connect multiple barrels.
- * Elevate the rain barrel for easier spigot access and to increase water pressure.

Rain Barrels of Fun

How much water will your roof yield? :

- Determine the portion of roof that drains to your downspout.
- Determine the roof drainage area (length x width) in feet for square feet.
- Roof square feet x inches of rainfall x 0.6 = gallons of water collected.

Example:

1. Roof drainage area is 24' x 20'. This is equal to 480 square feet.
2. Rainfall event is 0.25 inches.
3. Gallons of water collected can be calculated:

$$480 \text{ sq ft} \times 0.25 \text{ inches} \times 0.6 = \mathbf{72 \text{ gallons of water}}$$



How much do I need? :

- Determine the area of your garden (length x width) in feet for square feet.
- Determine the amount of water desired in inches. (0.25 inches is a good amount for watering)
- Garden square feet x inches x 0.6 = gallons needed

Example:

1. Garden area is 10' x 35'. This is equal to 350 square feet.
2. Water needed is 0.25 inches.
3. Gallons needed:

$$350 \text{ sq ft} \times 0.25 \text{ inches} \times 0.6 = \mathbf{52.5 \text{ gallons of water}}$$

How much area will my collected water cover? :

- Estimate the gallons of water collected.
- Determine the amount of water desired in inches.
- Gallons collected (*divided by*) inches of water desired (*divided by*) 0.6 = Square foot area that can be watered

Example:

1. 55 gallons (1 barrel) collected.
2. Would like to water equal to a 0.25" rainfall
3. Area that can be watered:

$$55 \text{ gallons (divided by) } 0.25 \text{ (divided by) } 0.6 = \mathbf{366 \text{ sq foot area}}$$

Why do we use 0.6 to convert square feet to gallons?

1 cubic foot of liquid = 7.48052 gallons (standard conversion)

1 cubic foot = 12" x 12" x 12"

We are only using 1 " of a cubic foot which is 1/12 of the cubic foot.

So.... $7.48052 / 12 = 0.623$ gallons

