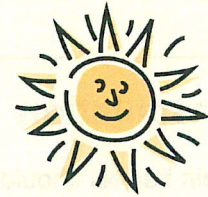




Rain Barrels

Save it for a Sunny Day!



With a huge push to go “green” lately, homeowners have turned to installing and using rain gardens and rain barrels. Rain barrels are large containers, which come in plastic, wood, or clay, and come in various sizes. These barrels collect water from the roof top that comes down the downspouts. They have many advantages that benefit homeowners as well as the environment.

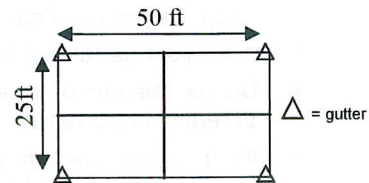
Benefits:

- Cost-effective alternative to using tap water for watering your lawn and garden.
- This is great for organic gardeners.
- Helps reduce excess runoff into our streams, storm sewer systems and Lake Erie.
- Takes advantage of already existing source of fresh rainwater
- Helps to keep yards, basements, and crawl spaces from flooding.
- Applicable to all types of sites (residential/commercial/industrial).
- Inexpensive to install and maintain.

How Much Water Can I Collect?

- First you need to calculate your downspout drainage.
Downspout Drainage = Area of roof/number of downspouts
Area = length x width
- Then find out how many gallons of water will drain from your roof in a one inch rain (use the table below).
- Finally divide the total gallons by the desired container size of your barrel.

EXAMPLE



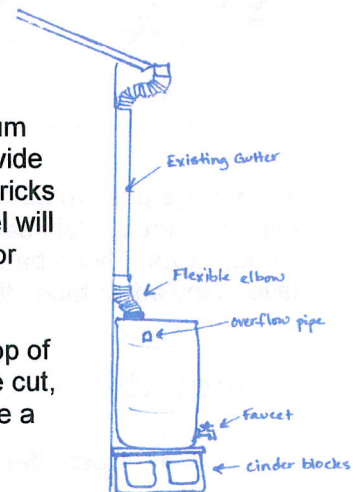
Area= 50 x 25 = 1250 sq. ft.
Downspout drainage = 1250/4 = 312
Gallons of Water (1in. Rain) =702
Max barrels = 12-13

Roof Size Sq. Ft.	Gallons of Water (1 in. Rain)	Roof Size Sq. Ft.	Gallons of Water (1 in. Rain)	Roof Size Sq. Ft.	Gallons of Water (1 in. Rain)
50	28	1000	562	2000	1124
100	56	1100	618	2100	1184
200	112	1200	674	2200	1236
300	168	1300	730	2300	1292
400	224	1400	787	2400	1348
500	280	1500	843	2500	1405

Installation

Rain barrels should be installed upon cinder blocks or bricks to provide height for gravity flow purposes. The blocks or bricks should give a minimum of 6-8" of height. Place cinder blocks (two of these side by side usually provide enough height and a large enough surface for the rain barrel to sit on) or bricks (number will vary depending on the size of the brick.) where your rain barrel will sit. A full rain barrel will weigh over 300 pounds, so make sure your bricks or blocks can withstand this weight.

To install the downspout, first place your barrel next to the downspout on top of the blocks or bricks you installed. Mark the downspout where it needs to be cut, making sure that it will go into the downspout adapter (You may want to use a downspout "snake" to connect the downspout to the adapter)



Maintenance

Keeping the Leaves Out

- Prevent leaves and other debris by placing a fine mesh over your gutter connection before connecting to your existing gutter system.
- For added protection you may purchase a gutter wedge to be installed over the downspout hole in your gutter.

Mosquito Prevention

- Drain any water that sits stagnant for long periods of time.
- Keep the piece of fine mesh secured around opening of barrel.
- Keep your barrel free of organic material.
- One tablespoon of olive oil in your water will keep mosquitoes from breeding in the barrel.
- If mosquitoes seem to persist you may also purchase "Mosquito dunks" to control breeding (these can be found at most hardware or box stores near the insecticides)

Winterizing Your Barrel

In the fall, drain your rain barrels and remove them from the downspout placing them upside down or on their side.

REMEMBER

Rain Barrel water is considered non-potable water not to be used for human or animal consumption. Children and pets should not be allowed to drink from the rain barrel.

Helpful Websites

Watershed and Rain Barrel Links

www.firelandtributaries.org
<http://erie.osu.edu>
http://www.raingardens.org/Rain_Barrels.php

Gutter Diverter Links

www.aquabarrel.com
www.nerainbarrel.com



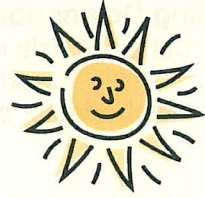
Fact sheet developed by:
Alicia Fager, OSU Extension, and Breann Hohman, Erie Soil and Water Conservation District





Rain Barrels

Save it for a Sunny Day!



Making a Rain Barrel

Materials Needed

- 30-55 Gallon Food Grade Barrel
- 1 1/4 in. x 3/4 in. Threaded Pvc Bushing (Need 2)
- 3/4 in. Threaded PVC Elbow
- 3/4 in. Brass Boiler Drain (Male)
- 4 in. Downspout Adapter
- 100% Silicone Sealant

Equipment Needed

- Drill
- 1/4" or 3/8" Drill Bit
- 1 1/2" Hole Saw
- Round or 1/2 Round File
- Jig Saw
- Channel Locks

Preparing the Barrel

1. Make sure barrel has been rinsed and empty.
2. Consider where you will place the barrel.
3. Place a small "x" or dot where you would like the faucet to be (at least 1 1/2 inches from bottom).
4. Place a small "x" or dot where you would like the over flow pipe to be (near top side).
5. Trace a circle around the 4 in downspout adapter by placing it evenly over the bung hole opposite of faucet side of the barrel.

Installing the Faucet

1. Drill a hole in "front" of barrel at least 1 1/2 inches from bottom.
2. Use the "threading tool" to pre-thread the PVC bushing.
3. Apply silicone to the outer threaded portion of PVC bushing.
4. Insert bushing into drilled hole by applying pressure and turning in a clockwise motion.
5. Apply additional silicone to the outer seam where the bushing and the barrel meet.
6. Apply pipe compound/silicone to the outer threaded portion of the boiler drain faucet.
7. Insert faucet into bushing by turning in a clockwise motion.

Installing overflow pipe

1. Drill a hole near top of barrel.
2. Use the "threading tool" to pre-thread the hole.
3. Apply silicone to the outer threaded portion of PVC bushing.
4. Insert bushing into drilled hole by applying pressure and turning in a clockwise motion.
5. Apply additional silicone to the outer seam where the bushing and the barrel meet.
6. Apply pipe compound/silicone to the outer threaded portion of the boiler drain faucet.
7. Insert PVC elbow pipe into drilled hole by applying pressure and turning in a clockwise motion.

Installing Downspout Adapter

1. Cut a 4 in hole in top of barrel (usually placed around existing bung hole).
*NOTE: you may need to ream (expand) the hole using a file for drill bit.
2. Install adapter by applying pressure until it snaps into place.

Connecting your Rain Barrels

Connecting rain barrels allows you to maximize your water harvesting efforts from your roof!

Installing a connector

1. Drill a hole near top of barrel (slightly below overflow pipe)
2. Use the "threading tool" to pre-thread the hole.
3. Apply silicone to the outer threaded portion of 1 ½ in. PVC connector.
4. Insert connector into drilled hole by applying pressure and turning in a clockwise motion.
5. Apply additional silicone to the outer seam where the connector and the barrel meet.
6. Connect each barrel with hose and silicone sealant.

Want to Change the Color of Your Rain Barrel?

Should you decide that you wish to paint your rain barrel, Krylon now offers Fusion paint that works the best to paint your plastic barrel. Fusion is specially developed to adhere to plastic objects. Krylon Fusion can be found at most retail, hardware, and box stores for about \$5.00 per can.

For best adhesion, lightly sand the entire barrel with a fine sand paper (make sure that it does not leave scratches in the plastic, then wipe surface down with an ammonia base cleaner.

To paint the rain barrel:

1. Cover spigot and overflow valve with masking tape
2. Shake can vigorously for 2 minutes
3. Hold can 8 to 10 inches from surface
4. Spray in sweeping motion keeping even distance from surface
5. Begin off the surface and continue each pass off the other side
6. Begin by applying a thin coat and wait 30 seconds
7. Apply multiple thin coats to avoid runs and drips

The paint dries in 15 minutes or less and can be handled after 1 hour. To re-coat, paint before 24 hours or after 7 days. Your barrel should be chip resistant within 7 days.

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