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## Rain Barrel Fact Sheet: Care and Maintenance

What is a rain barrel? A rain barrel is any type of container used to catch water flowing from a downspout. Rain barrels reduce the amount of stormwater runoff by collecting roof runoff and storing the rainwater for future use.

What are the benefits of rain barrels? The primary purpose of a rain barrel is to provide homeowners and gardeners a source of soft, slightly acidic water that is typically preferable to city water (which may be chlorinated) or well water (which may have excessive mineral content) for irrigating woody and herbaceous ornamentals, as well as lawns.

Rain barrels can also reduce the potential for basement flooding by directing water away from house foundations. In addition, rain barrels reduce the amount of water running into lakes and rivers, thus reducing erosion and helping prevent stormwater pollution of lakes and waterways. Rain barrels work particularly well on smaller properties where plants can be watered directly from a barrel using an attached hose.

Typically, rainwater runoff is collected in storm sewer systems and released directly into streams. This direct runoff can contribute to flooding in developed areas with a lot of impervious surface (like roofs, sidewalks, parking lots, and other surfaces that don't allow rain water to drain). This runoff carries with it pollutants that contribute to poor water quality that can affect the health of local waterways and even your drinking water. These issues are of particular importance in highly developed areas as more impervious surfaces cause more runoff during a rain or snow event.

When you collect rainwater that would otherwise enter the storm sewers, you are helping to minimize the amount of stormwater that will directly runoff into streams. $\boldsymbol{A}$ rain barrel won't solve the flooding issue by holding back all the stormwater, however it is a good start and it gets homeowners thinking about water conservation. Not only do rain barrels conserve water and control runoff, they can give you a good idea about the large amounts of stormwater that is shed from impervious surfaces.

How do I install my rain barrel? Before you start, make sure that your roof is clean and your gutter is clear of debris. Select a place for your rain barrel under a shortened downspout on level, solid ground free of any rocks, roots, or debris that can make your rain barrel rock from side to side. Fifty gallons of water weigh several hundred pounds and may be a risk to children if they try to climb on the barrel.

It is recommended to raise your barrel a few inches by placing it on top of flat landscape/paver-type stones or concrete blocks. Raising your rain barrel a few inches off of the ground will give you more water pressure and make it easier to reach for the spigot or use a watering can.

Arrange your rain barrel so that the overflow valve is facing away from your home's foundation. Always make sure to monitor your rain barrel for overflow to avoid damage to your foundation-if you go on vacation, plan ahead!

How do I care for and maintain my rain barrel? Most problems with rain barrels can be easily avoided if water is not allowed to stand in the barrel for more than five to seven days. Mosquitoes are a frequent concern with rain barrels as these insects breed in stagnant water. A fine mesh screen fitted to the lid of your rain barrel will prevent adult mosquitoes from gaining access to the barrel and laying eggs. While not recommended, if you opt not to use a screen or filter, you will need to completely empty your barrel every week so that mosquitoes do not have time to breed.

Growth of algae may also be a problem if rain barrels are placed in direct sunlight. If algae become a problem, empty the barrel and then wash the barrel with a dilute bleach solution $3 / 4$ cup of bleach per one gallon of water. Rinse the barrel well after bleaching and dispose of the bleach water in a household drain.

During the spring and summer months routinely inspect your rain barrel. Remove any debris that has accumulated on the lid that might block the screen mesh. You should also routinely clean the inside of your rain barrel. Check your over-flow hose and connections often to ensure the barrel is proper working condition.

During the winter months, take your barrel out of operation. Prior to winter, disconnect and drain your rain barrel to avoid freezing and cracking over the winter. Simply turn it upside down or store it inside. Remember to reconnect your rain spout in order to direct water away from your foundation when the rain barrel is not in use.

## Restrictions on Rain Barrel Use:

- Do not drink any water collected by a rain barrel. Water collected from rain barrels is not suitable for human or pet consumption as roofs pick up contamination from leaves, bird droppings, dust, and other airborne material. If you treat your roof for pests, unhook your rain barrel for two weeks to keep your water uncontaminated.
- Due to lack of research data, water collected in a rain barrel is not recommended for watering fruit or vegetable gardens.
- The water flow (and pressure) will be less than from your outdoor spigot, making
sprinklers ineffective. Plan to use soaker hoses, handheld spray nozzles, and/or watering cans. Elevating your rain barrel on a sturdy platform will increase the flow.
- Sometimes, the roofing material itself can contaminate harvested rainwater. In the case of some roofs, such as old tar and gravel, old asbestos shingle, or treated cedar shakes, the homeowner should not harvest rainwater.
- Use the screen that comes with the barrel and always keep your rain barrel covered. Even small amounts of water can present a drowning risk to children and pets.
- Clean your roof and gutters at least once a year to minimize debris in your stored rain water.

Interesting Fact about Rain Barrels: 1-inch of rain on a 1,000 square foot roof yields 623 gallons of water. Calculate the yield of your roof by multiplying the square footage of your roof by 623 and divide by 1,000 . Depending on your roof area, a rain barrel can fill up when there has been as little as $1 / 10^{\text {th }}$-inch of rain. To collect twice this volume from the same downspout, connect the overflow hose from the first rain barrel to a second rain barrel.

