

# Harvesting *rain!*

TEXT Tracey Cole

**A water tank is the most responsible way to keep your garden lush through dry spells.**

**W**ater is an essential and life-giving part of the garden, vital for hydrating plant cells, which aids plant processes including growth. However, plants are subject to transpiration, which happens when they lose water vapour through their leaves. To counteract this effect, plants rely on a good root system to constantly draw water from the soil.

Harvested rainwater is ideal for use in the garden: it has a nearly neutral pH and is free from man-made contaminants, thus ensuring plants will thrive and flourish. The most convenient and popular method of harvesting rainwater is with a rainwater tank, also called a rain barrel or butt. This tank should be fitted to a downpipe from the roof gutter of your house, greenhouse, shed, or any structure that has guttering and a downpipe.





### Suitable harvesting containers

Rainwater tanks vary in size from 260-litre to the large, more industrial 20 000-litre tanks. The tanks are made from base polythene and lined with a carbon-black liner that prevents algae growth and keeps the water fresher for longer. Tanks also have UV stabilisers, giving them an extended service life and promoting durability in the harsh South African conditions.

If budget is an issue, you can also use containers such as oil drums to successfully harvest rainwater. These are the perfect capacity to store a reasonable amount of rainwater. Plastic containers are a better option, though, and large food-storage bins will work perfectly. These have the capacity of 70-litres to 200-litres, but will require a hole cut into the lid to fit the drainpipe.

Any container used as a rainwater tank requires a base or stand and a downpipe connection. Accessing water at the bottom of the container is difficult unless you can fit a tap. When using a recycled container to harvest rainwater, ensure that it's steam-cleaned before use to remove any residue that could cause fungal growth.

### Determining your rainwater yield and tank size

Certain factors determine how much rainwater your tank will yield, including the volume and timing of

rainfall in your area, the size of your tank and the collection area of the roof to which you connect your tank.

The size of your residence dictates the amount of rainwater you collect: one millimetre of rain on a surface area of 1m<sup>2</sup> delivers one litre of rainwater into your tank. Use this





rough guide to help you determine the best tank size for your property:

- An average 3-bedroom property has a roof of approximately 150m<sup>2</sup>.
- An average 4-bedroom property has a roof of approximately 200m<sup>2</sup>.
- An average 5-bedroom property has a roof of approximately 300m<sup>2</sup>.

A small tank holds less than 2 000 litres, a medium tank holds between 2 000 and 10 000 litres, and large tanks hold more than 10 000 litres.

When choosing your rainwater tank, the space available may limit your options. With a large space you can choose any size, but with limited space for installation you may need to opt for a smaller tank.

If you live in an area with a regular annual dry spell, you need a tank with sufficient capacity to cover your requirements. If the dry spell lasts 60 days and you use 100 litres a day, you need at least a 6 000-litre tank. If space is at a premium, you can install two smaller tanks linked with a connecting hose, or fit a space-saving bladder tank under your deck or house.

## Saving water

Recycled domestic wastewater, known as 'grey water', comes from showers, baths and washing machines, as well as the water used when cooking pasta, vegetables and eggs. Although grey water contains soap and detergents, soil and potting composts filter these contaminants out, making grey water very effective in the garden.

As useful and effective as it is, grey water is only suitable for use over a short period, ideally when no other suitable water is available. Prolonged use of grey water eventually affects the soil structure and health of the plants, due to the build-up of the salts, chemicals and fats it contains. Because of this, you should not use grey water where delicate plants like orchids, ferns or roses grow.

Systems that filter and clean grey water are available, and are an ideal, safe way of using grey water. This is good for the environment and the garden, and also a great way to save water!

A drip-irrigation system using recycled rainwater is a very effective water-saving tool. It allows a limited amount of water to drip onto plant beds and containers, and straight to the root system. This method controls the amount of water used, is efficient for auto-watering and is a lot less labour-intensive than using a watering can!

## And finally...

Water is imperative for a luscious, healthy garden. Well-positioned and accurately-sized water tanks have proven extremely successful in harvesting rainwater, while grey water can be re-used when the situation demands. Wherever you live, in whatever climate, your garden need never suffer from a lack of life-giving water. 🌱

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