Grey Water

Water is the key to life and gardening, and with rising costs and increased public awareness of this vital resource, more people are looking at ways to use water wisely.

One option becoming popular is reusing grey water on the garden. Grey water is household waste-water from the bathroom, hand basin, shower, and laundry.

Figures show that one Australian house can produce about 400 litres of grey water a day, something like 40 percent of total use. But if this grey water is used effectively, it can lead to considerable savings.

There are three types of grey water systems, ranging from complex through to really simple. But they all divert grey water from the house onto the garden. One of the most expensive and complex options is a grey water treatment system, which can cost about $10,000.

The grey water drains into a collection tank. From there it is pumped up to a deep sand filtration bed. The grey water percolates through this filtration bed, which consists of a layer of gravel and sand, and is treated through this process. The grey water is stored in a holding tank, and from there pumped onto different parts of the garden.

The benefit of a grey water treatment system is that it improves the quality of water, and with some further disinfection it can also be used for surface irrigation or diverted inside the house for flushing the toilet, and washing clothes. But the downside is that a treatment system is really expensive, and a massive exercise. But more importantly it takes loads of government red tape to get the system approved.

Last year Josh installed a grey water system at his Perth home. It doesn't treat the water, but is a diversion and filtration system that cost about $1,500. The grey water is pumped into a surge tank on a wall, and then discharged into the garden after passing through a disc filter.

But Grey water expert, Dr Wendy van Dok, believes that most of us tend to over engineer our grey water systems. She installed a fairly simple system in her backyard six years ago.
"Most people don't need a high tech, expensive, complicated grey water system. More often than not a simple diversion system - which can cost less than $200 - is all that's needed."

Wendy has a three way pull valve that enables her to divert the grey water onto two different garden beds.

Wendy has used a simple subsurface leaching system. She has laid a number of segments of agi pipe below the surface. These have been laid at a gentle slope and Wendy diverts the grey water from the plumbing, into these pipes. The benefit of having the grey water subsurface is that it means less contact with it, which is safer. There can be pathogens, or disease causing organisms, in grey water, so the less contact with it, the better. The other advantage is that the water is getting to the roots, where it's needed.

Wendy is also careful about what she puts down the sink. The biggest problem with laundry grey water is the sodium in detergents. Highly salty water can be a big problem. But Wendy manages the grey water by choosing the right products and being responsible about what goes down the drain. It means being careful about the laundry detergents, cleaning agents, and personal hygiene products. Wendy's policy is: "If I can't put it on my skin, then it doesn't go out to the garden".

Grey water regulations vary from state to state and it's important to be aware of local state and council rules. It's important to be aware that any work on sewerage pipes needs to be done by a licensed plumber. Grey water can also contain disease causing germs, so don't put it on vegies or ground dwelling herbs. Fruit trees are fine, provided there is no direct contact between the grey water and the fruit.

Wendy sees grey water as part of an overall water saving strategy. This includes reducing how much water is used in the first place, installing rainwater tanks, and designing a garden to harvest storm water.

For further information about grey water contact the waste water regulator in your state.

Other useful websites include:
The Alternative Technology Association: www.ata.org.au
Lanfax Laboratories: www.lanfaxlabs.com.au

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