



Using 'Grey Water' in the Garden

The facts about 'grey water' and how to use it safely in your garden

What is 'grey water'?

'Grey water' is household waste water, that is to say water from your bath, shower, washing-up and washing machine. *'Grey water' does not include water from toilets.* The quality of 'grey water' will vary depending on the source of the water, for example water used to wash vegetables and fruit will contain fewer dissolved chemicals than water recycled from your dishwasher.

Will soap and detergent harm my garden?

Soil is very effective at filtering out many contaminants in 'grey water'. However water containing soap or detergent does have the potential to cause soils to disperse and lose their structure; clay soils are more susceptible to this type of damage. However, where this type of water is used for short periods, usually only during summer months, any damage is unlikely.

In gardens with clay soils, avoid using waste water contaminated by detergents containing sodium compounds. Washing Soda (Sodium carbonate) and Sodium sulphate are sometimes added to detergent products.

Many detergents have high levels of phosphates - an important plant food. If much waste water containing detergents is used, there may be some nutritional benefits for the garden. 'Ecologically friendly' detergents omit phosphates and are free of other synthetic materials and should have the least adverse effects on the soil. Bath and shower water containing a moderate amount of soap is not harmful to the soil.

Are all sources of grey water safe to use?

Water that has been used with products containing bleach or boron compounds should be avoided. Boron is often found in strong detergents used in dishwashers and consequently it is advisable not to use waste water from dishwashers.

'Grey water' should not be used for watering edible crops. It is also advisable not to use bath or shower water if there is an illness in the household.

How can I reduce the effect of soap detergent on the soil?

Washing-up water will have the highest levels of detergents, the effect of this can be reduced by using it in conjunction with less contaminated water such as that used for washing vegetables and fruit.

The huge amount of rinse water (40-60L per wash) used in washing machines will dilute detergents to the lowest level, and is safe to use. The first rinse will contain most detergent; discarding this will help.

Using Water from Domestic Water Softeners

The long term use of water from domestic water softeners is not recommended. Water softeners replace the magnesium and calcium in hard water with sodium, which can adversely affect the soil structure. However, for short term use, using 'grey water' from washing up, baths and showers, softened water should not cause damage.

Dishwashers often incorporate a water softener, the powerful detergents used in dishwashers often containing boron, might be harmful, it is recommended that waste water from dishwashers is avoided. Boron is a plant nutrient but is also toxic to plants in excess.

The only risk from using softened water is to clay soil minerals.

Softened water is alkaline and therefore less suitable for ericaceous or lime hating plants, for example heathers and rhododendrons. Rain water is preferable in these cases.

Tips to remember when using 'grey water'

- Choose the least contaminated 'grey water'
- Dilute waste water with high levels of detergents with water that contains lower levels
- Use the minimum amount of detergent
- Use products that contain the least synthetic chemicals
- Use 'Ecologically friendly' detergents
- Avoid applying 'grey water' with sprinklers
- Avoid using waste water from dishwashers
- **Do not store 'grey water'**
- **Do not irrigate food crops with 'grey water'**
- **Do not use water that has been used with products containing bleach or boron compound**

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