



تراب SOILS
للزراعة البيئية لبنان
PERMACULTURE ASSOCIATION LEBANON

re+alliance

Malteser International
Order of Malta Worldwide Relief

german humanitarian assistance
DEUTSCHE HUMANITÄRE HILFE

GARDENING WITH GREY AND RAIN WATER IN REFUGEE CAMPS

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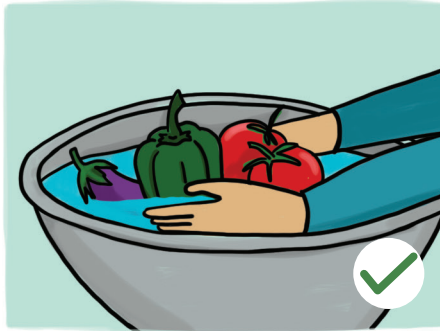
HOW TO USE GREY WATER SAFELY IN THE GARDEN

What is grey water?

Grey water is wastewater generated from the following streams:



Washing hands



Washing vegetables



Washing dishes



Washing clothes



Shower/bathing water

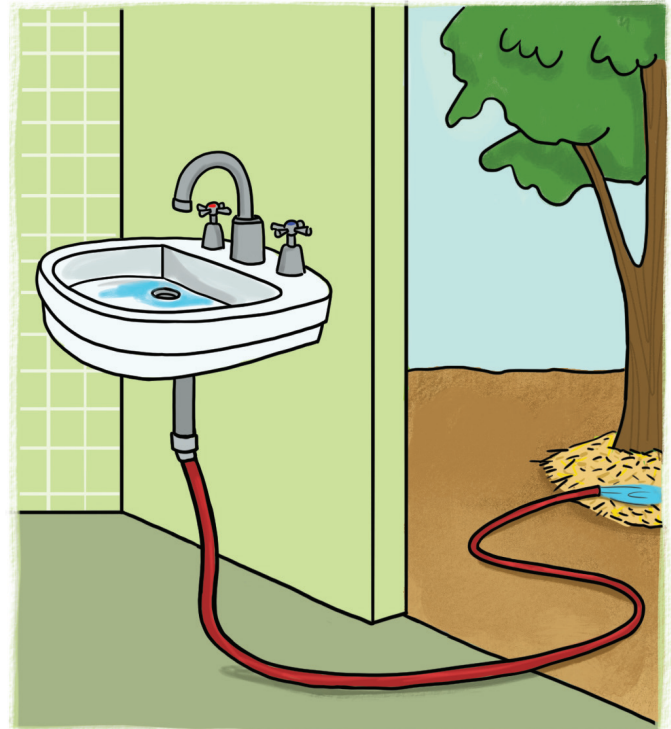


All water used in household
except for water from toilet 5

How to collect grey water from home?



Collect it in buckets from sinks and shower



Or divert shower and sink pipes

How to collect grey water from home?

Use mild and natural soaps and shampoos with least chemicals



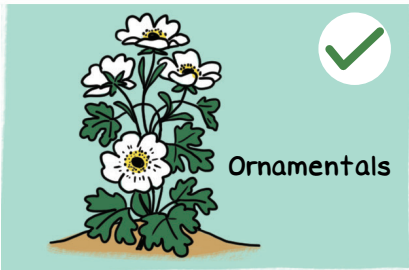
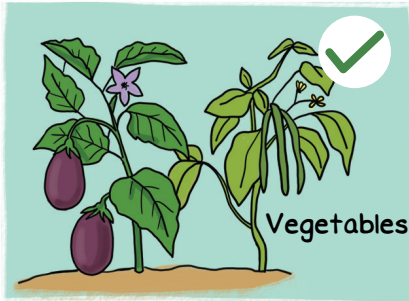
Wash hands after disposing of it



Use it immediately,
don't store for more than
24hrs

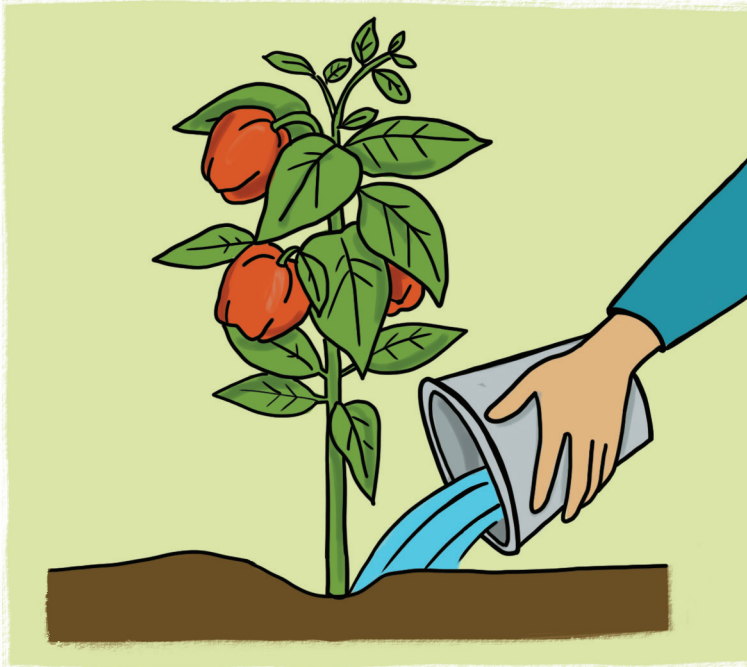
How to irrigate with grey water?

Crops you can irrigate with grey water:

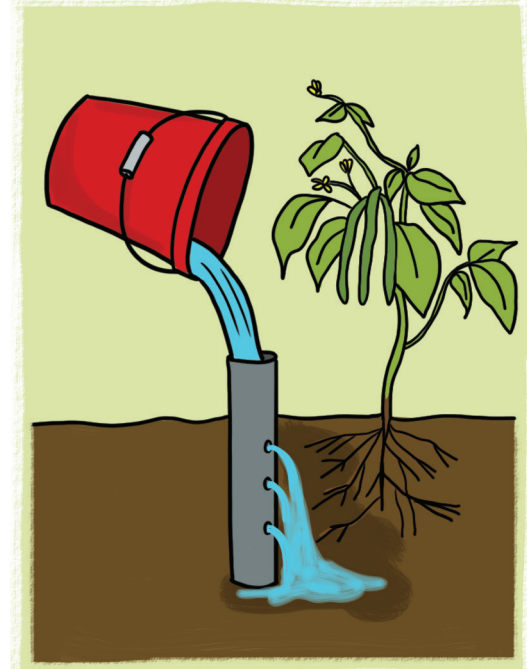


How to irrigate with grey water?

Irrigation method



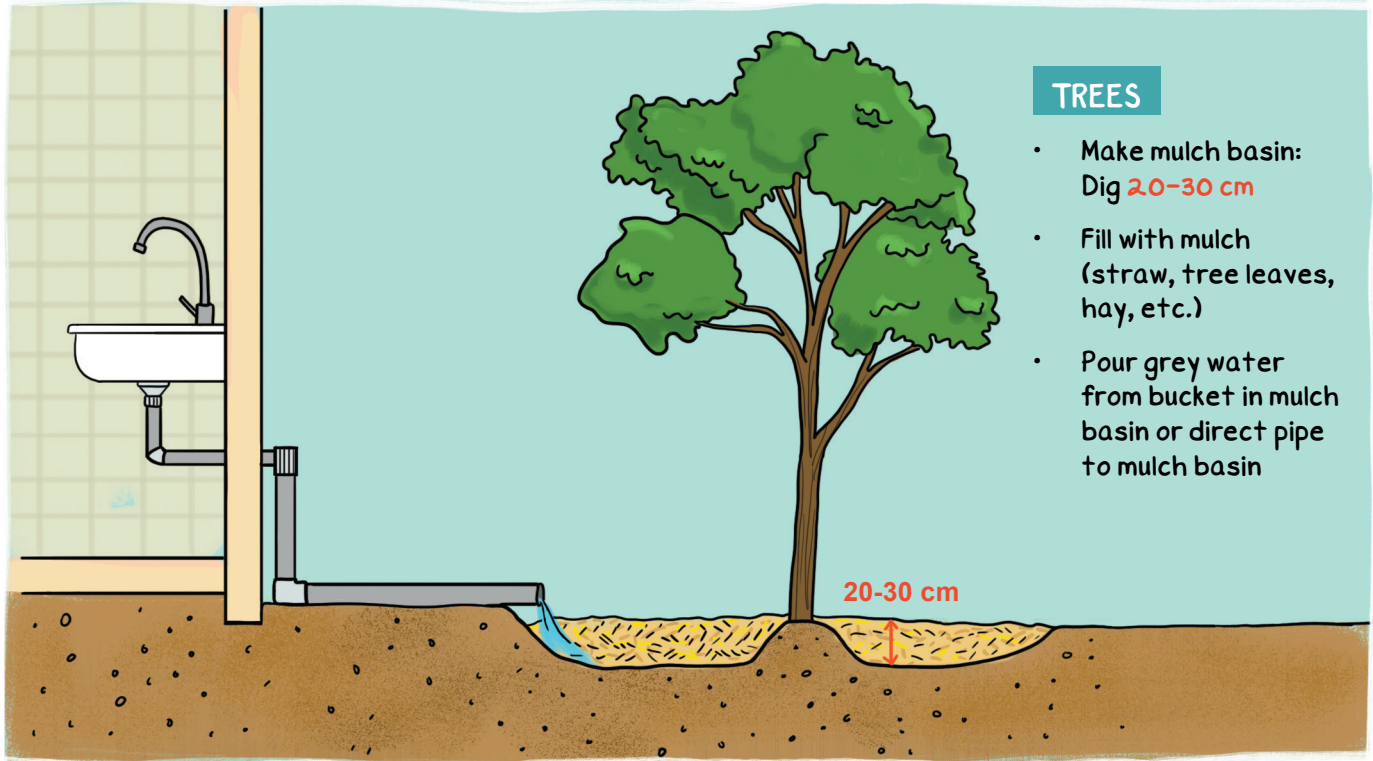
Water at the root zone



Vegetables:
micro irrigation with pipe

How to irrigate with grey water?

Irrigation method



TREES

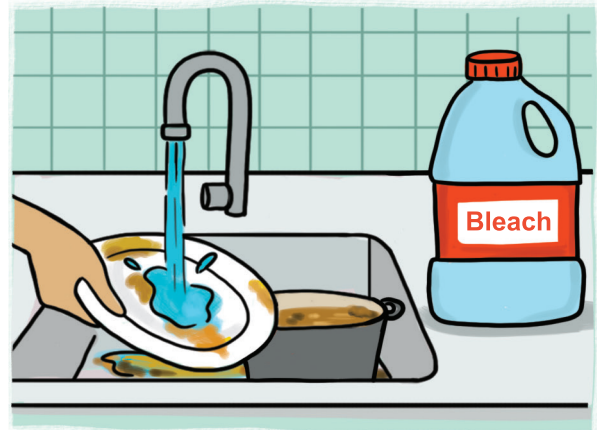
- Make mulch basin:
Dig **20-30 cm**
- Fill with mulch
(straw, tree leaves,
hay, etc.)
- Pour grey water
from bucket in mulch
basin or direct pipe
to mulch basin



What sources of grey water to avoid?



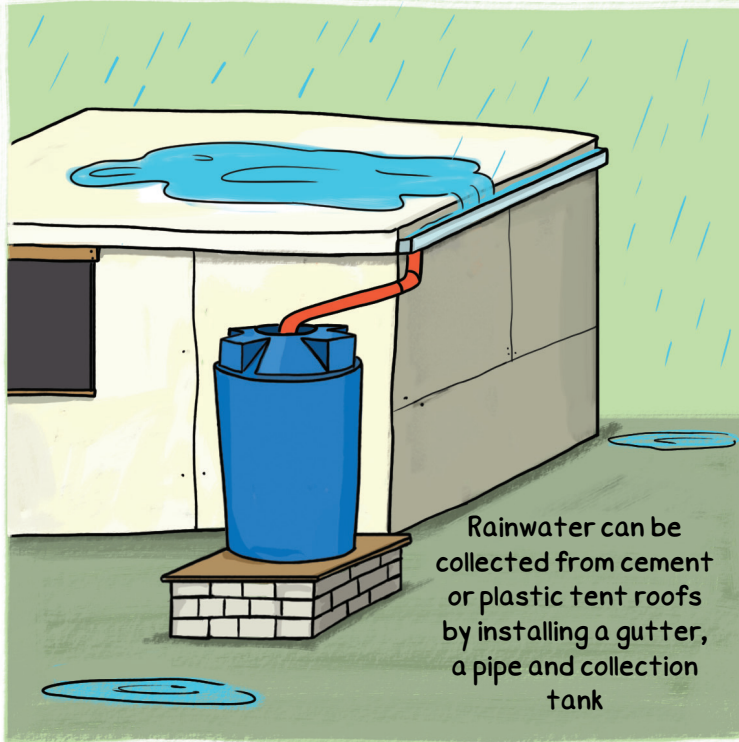
Water from washing clothes
if using **chemical detergent**



Washing water from pots
with a lot of **grease / oil / bleaching agent**

HOW TO USE RAINWATER IN THE GARDEN

How to collect rainwater?



Let rain wash the collection surface before collecting

How to store rainwater?

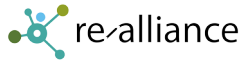


How to improve rainwater infiltration in vegetable beds?



This booklet has been prepared by SOILS Permaculture Association Lebanon in collaboration with Re-alliance, as part of a Malteser International project in the North West region of Syria, with funding from German Humanitarian Assistance.

The content of this manual represents the views of SOILS Association only and is their sole responsibility.



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