

# USING HOUSEHOLD WASTE WATER ON PLANTS

If, in a drought crisis, you no longer have fresh water to irrigate outdoor plantings, can you use dishwater, bathwater or laundry water without hurting the plants? Yes, if you use reasonable care.

But, first, a warning: Household wash water-also called "graywater"-contains food residues and other organic matter that may attract insects and rodents. It also may contain bacteria and viruses that could cause illness. Public health officials have indicated that it may be used for home irrigation-but only in localities where no other water is available for that purpose.

Here are some guidelines: (1) The safest household use of "graywater" is to flush toilets. (Don't put it in the tank; pour it directly into the bowl.) (2) Don't let it touch the edible parts of plants. (3) Use it only as a temporary measure during a water shortage crisis. In any case, check with your local health and building officials before making any use of "graywater."

## Effects on plants

Household wash water is much better for plants than no water at all, but there are possible problems. If your home does not have a water softener, your bathwater and rinse water from dishes and laundry are all of good quality for irrigation. Soapy wash water from dishes and laundry might better be saved to flush the toilet, but can be used for irrigation if you're careful about certain possible problems. (See below.)

If your home does have a water softener, your household wash water contains more sodium than it would otherwise, but it is still usable with some precautions. Over long periods of time-months, at least-sodium may cause soils to

become "tighter" and resist water penetration. If necessary, you can counteract this by mixing gypsum (up to 1/4 pound per square foot) into the soil surface.

In addition, you might make the watering basin on only one side of a tree or shrub bed. In this way, a smaller area will be affected by the sodium and the water still can be used effectively by trees and shrubs.

Soapy wash water from dishes or laundry will help keep plants alive in an emergency, but you should be aware of certain possible problems.

*Chlorine.* Bleaches commonly contain chlorine, which can damage plants, particularly if it touches the foliage. (One symptom of damage is a tendency for new, expanding leaves to appear bleached.) If you plan to irrigate plants with wash-cycle laundry water, it would be safer not to use a bleach. If that isn't practical, use as little as possible and let the water stand overnight before irrigating with it.

*Boron.* Many laundry products contain boron compounds. Some have fairly high levels, which can be toxic to plants. (Plant damage from excess boron first shows up as "burning" of the leaf edges.) You won't be able to determine the boron content by reading the label on the container, but look at the trade name. If it sounds somewhat like "boron" or "borax," the product probably contains a significant amount of boron. In any case, if you use the water for irrigation, avoid packaged softeners that are added directly to wash water. These products probably contain either boron or metaphosphates, or both. The sodium in the metaphosphates tends to seal up the soil; the boron may accumulate enough to become toxic to plants.

Don't worry about the phosphates in ordinary detergents; they will not hurt plants. In fact, they usually are in a form that acts as plant fertilizer. (Phosphates can over-fertilize lakes and streams, but this is not a soil problem.)

### **Applying water**

Here are some rules for irrigating with "used" water that will reduce the chances of plant damage:

1. If you use wash-cycle laundry water for plants, mix it with the rinse-cycle water. This will cut the concentration of harmful chemicals, probably enough to avoid plant damage.
2. Watch closely for signs of plant damage. If certain plants show symptoms first, they probably are more sensitive. If possible irrigate them with better quality water. Use of wash

water is questionable on very salt-sensitive plants such as azaleas and strawberries.

3. Don't use wash water for potted plants. With their restricted root zones, they are much more subject to damage. You might save cold water from the shower (before the water warms up) for potted plants or other special uses.

4. Don't pour water directly at the base of tree trunks or shrubs. This may cause crown rot; besides, the feeder roots that take up water are located farther out.

5. Be sure you apply enough water so the plants get a good drink. If you just wet the surface of the ground around deeper-rooted plants, they will get little benefit.

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