



# HOW TO GET SAFE WATER FROM A CISTERN

## Lesson Guide

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### Your Goal As a Teacher

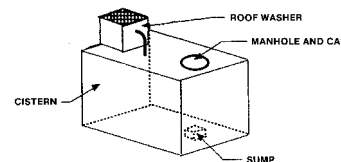
After teaching this lesson, I expect the homemaker / client to:

- Know a cistern can be used to catch rainfall and to store hauled water.
- Understand cisterns can be made of many materials, but poured reinforced concrete is the best.
- Realize cisterns should be located in firm ground that is sloped so water drains away from the cistern. A cistern should be placed near where the water is caught.
- Understand that roof gutters with roof guards are necessary as is a roof washer.
- Know that a sand filter is a good addition because it filters unwanted materials out of the water.
- Realize the importance of cleaning and disinfecting a cistern and how to disinfect it.



### Teaching Tools

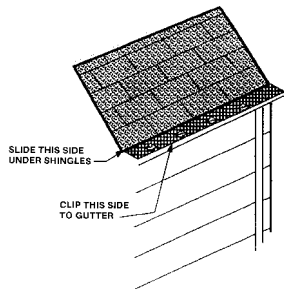
- Flipchart -- How to Get Safe Water from a Cistern (Available for loan by contacting Kim Henken, (859)257-7775 or khenken@ca.uky.edu.)
- Handout -- What Material Should You Use for Your Cistern and Where Should You Put It?
- Handout -- What You Need For a Cistern Water System
- Handout -- Cleaning and Disinfecting a Cistern



### Points to Stress

1. A cistern is a good choice if you can't get on city water and you have trouble drilling a good well.
2. Cisterns can be made of poured reinforced concrete, concrete block, fiberglass, metal or plastic. Prefabricated cisterns can be bought.
3. Cisterns need to be located in firm ground where the ground is sloped so surface water drains away from the cistern.

4. The cistern should be near where the water is caught and far away from tree roots and sources of pollution.
5. It is often necessary to use a barn roof in addition to the house roof to obtain sufficient roof area. Otherwise, water will need to be hauled during dry times. The cistern can also be used to store hauled water.
6. Roof gutters are needed to catch the rainfall. They must be in the right place and fastened on tightly. Roof guards are needed to keep out leaves and trash. The gutters must be cleaned.



7. A roof washer washes bird droppings, discharge from power plants, factories, cars and trucks off the roof. A waste pipe and diverter valve are needed to drain the water when the cistern is full.
8. Sand filters are not mandatory but are useful because they filter unwanted materials and reduce the acidity of the rain water.
9. A cistern should be cleaned before you use it and at least every 5 years. It should be scrubbed with bleach solution and then hosed out until you no longer smell bleach.

10. The cistern should be disinfected using a chlorine pump treatment or a batch treatment. The batch treatment means adding 1 ounce of 5% chlorine bleach for every 200 gallons of water in the cistern. It should be done once a week.

## Ideas for Teaching the Lesson

1. Use the flipchart that is provided and go through it carefully with the homemaker.
2. Explain to the homemaker the importance of using a roof washer and a sand filter in order to get the cleanest water possible if you are catching water for your cistern.
3. Talk to the homemaker about how often the cistern is disinfected and how often the water from the cistern is tested. Encourage the homeowner to follow basic maintenance procedures.
4. Have the homemaker show you the cistern and discuss proper care.
5. If the homemaker is just considering installing a cistern water system, discuss the best type of cistern, where it should be placed, and the parts that should be used.
6. Explain to the homemaker that the cistern can also be used to store hauled water or used as a combination rain water collector and storage area.