

GOOD POTABLE WATER DEVICE

From: hpn  
Newsgroups: misc.survivalism  
Subject: Re: Recommend a good potable water device?  
Date: Mon, 01 Jul 1996 12:31:35 GMT

Geri wrote:

MMedi13720 wrote, suggesting painting a pressure cooker black and allowing solar heat to distill water. Then he wrote,

I don't see it taking any longer than a regular solar still (as in visqueen, a bucket, and a rock), not if you paint the cooker with black barbecue paint. Maybe a bit longer....snip

Mike S.

Though the solar heat absorbed by a blackened pressure cooker would increase the rate of evaporation inside the pot, there are a couple of reasons that it would not be an effective distillation apparatus for more than a bit of water without providing additional heat.

First, distillation is dependent on water reaching the gas phase and then recondensing within the cooler tube or coils that then take the droplets down into a collection container. Though more water would become vapor in a sun-warmed pot than a cooler one, the surface area through which those randomly moving water vapor molecules must travel, i.e., the small hole at the top of the pressure cooker, would mean that a very small number of molecules would actually exit the pot into the tubing.

The majority of them would bounce against the top and sides of the pot and, many of these would condense again, dripping back into the water below.

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This would especially be true if there was any moving (cooling effect) air around the pot. In a classic, visqueen, solar still, the surface area for evaporation and condensation is much greater and would result in a more sizable collection of water. In order to drive the water vapor molecules through the hole at the top of the pot with any further degree of efficiency would require the addition of much more energy (heat) which would increase the pressure of that vapor phase above the water, forcing more of the molecules to travel out of the hole and diminishing the probability of their condensing on the lid of the pot.

The entire pot would be hotter and the lid would be less likely to serve as a cooling, hence condensing, surface. The placement of the pot in a parabolic-type solar cooker would increase the concentration of solar energy hitting the pot and could work, but it would have to be quite a large cooker, IMO. The pressure cooker could be an excellent distillation device if sufficient heat was applied to meet all of the conditions, above...Geri Guidetti, The Ark Institute

In article <4r8jmq writes:

I just found a purification kit for about \$50. It is really compact and it does 1,000 gallons of water. You only need to put a small amount of Clorox in the water to kill bacteria and the kit will filter that and other contaminants out. It is really easy to use and it requires no power to operate.

How does it work? Unless there's something besides bleach, it'll get rid of bacteria, but not protozoans, viruses, VOC's or heavy metals.

According to the documentation, it uses a blended carbon filter to remove everything that the chlorine doesn't kill. It also removes the chlorine or iodine. To use it you take it apart and pour water into the top of the unit. You let it filter through and collect in a receiver at the bottom. Just remove the receiver and drink. The

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exact size is 6"x3" and it weighs one pound.