

Purifying_Urine_To_Potable_Water_Quality_1996.txt
PURIFYING URINE TO POTABLE WATER QUALITY

Subject: Re: purifying urine to potable water quality
Date: 14 Dec 1996 04:41:58 GMT

shannon wrote:

I was wondering if it is possible to purify human urine to the point of good water . . .

To which pturmer replied:

The only hard part is getting the people to drink the water :-).

Urine is normally sterile, but makes a great medium for growth.

In a survival situation that doesn't involve a spacecraft or Biosphere II, I would be inclined to direct piddle to the groundcover surrounding my retreat to do the fertilizing job P. Turner noted and Nature intended ("Where Survivor goes, everything grows!"). I would then spend my limited time and energies on issues that The Natural Course of Things doesn't deal with. (Or, for you grammar purists, "the issues with which TNCOT doesn't deal." Sigh.)

On the one hand, I think it is important that Survivors acquire as many skills as possible, some of which may be regarded as arcane. On the other hand, I would like to see Time and Effort regarded as nonrenewable resources that must be expended prudently.

Desert survivalists are taught that, under certain circumstances, they will lose more body water BUILDING a vapor condenser than they will gain from the condenser itself. The Time and the Effort expended don't support the ultimate goal of survival. Keeping that goal in mind is

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crucial as you order your priorities. When things go to Hell, I doubt many of us will have the time or the energy to do everything the hard way.

Just a thought. All best,

Subject: Re: purifying urine to potable water quality

shannon wagoner wrote:

I was wondering if it is possible to purify human urine to the point of good water, i have done some experiments, i know if you let the urine sit in a closed container, many of the impurities will for on the top as a solid, i also have a water distiller (basically takes water to about 212f/100c and collects the water vapor and condensates it.

I doubt it is truely distilled water-ie electronically neutral, but it does get most of the impurities out for sure) if after setting for a week or so, taking most of the harden deposits out by a strainer, would running it thru this distiller once or twice make it healthy to drink (pure) it takes like 24 hous per gallon, so it certainly is a slow process, but with 2 or 3 i should be able to produce enough to extend a modest water supply over 2-3 times as long as it normally would.

I attended a seminar in college where this was discussed by a Ag Engineer with Boeing working of bioregenerative systems for space stations. The only hard part is getting the people to drink the water :-).

The solids you saw where probally the results of mold and bacteria. Urine is normaly sterile, but makes a great medium for growth.

As long as nothing is in the urine with a boling point lower than 212 deg F, the distiller will clean it up nicely, as will a solar still. It will

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leave a lot of deposits in a still though. Pat

Subject: Re: purifying urine to potable water quality

Date: Sat, 07 Dec 1996 01:31:48 GMT

A solar still will do the trick. Never tried it myself. Something about drinking.....ah never mind. Distillation would work. Note, solar stills are slow, but they will give you potable water. You could also try putting green vegetation in the solar still since that works too. Regards, Tom

Subject: Re: purifying urine to potable water quality

Date: Fri, 06 Dec 1996 21:26:39 -0500

Even if you could purify with 100% efficiency, and with no power used, you still would run out soon. Only a relatively small percentage of your water intake ends up as urine. Most disappears in sweat, breath, feces, etc. You would still need a good supply of water after only a short time.

I am wondering why you want to purify urine, as you probably know that you would need to supplement this recycled water with another source, and the recycling process is very inefficient, in terms of time and/or energy. (compared to other ways of obtaining clean water.)