## Safe Drinking Water For the World

## Haines Solar Cookers, LLC Del Mar, California May, 2020



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## The Haines 2.0 Solar Cooker Can Pasteurize Five Gallons of Water a Day!



- ✓ Over 3,000 Haines Solar Cookers have been distributed worldwide.
  ✓ Projects in Mexico, Kenya, Uganda and Haiti, since 2013.
- Founder Roger Haines:
  - Board member,
    - Solar Household Energy.
    - Alliance for African Assistance.
    - San Diego Rotary Club 33.
  - Associate, Solar Cookers Intl.
  - Retired Asst. U.S. Attorney.

The Haines 2.0 is built for power and durability.

- Mylar reflector will not scratch. Has strong, flexible backing. Is not affected by rain or boiling water.
- Clear cooking sleeve insulates and elevates the pot so sunlight is reflected onto the bottom of the pot.
- Clear cover permits cooking in wind.
- Meets ISO-19867-1 standard for clean cookstoves.







The Haines 2.0 cooks like a stove, bakes like an oven and folds up for storage.







Cooks chicken, vegetables, rice, beans. **Bakes** bread, cake. **Folds** up for easy storage.



Haines 2.0 set for low sun

In addition, the Haines 2.0 can provide 5 gallons a day of safe drinking water.

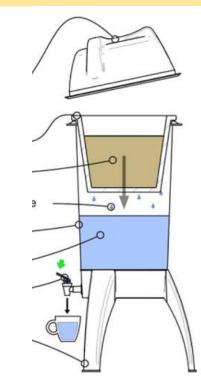
All over the world, people collect water from polluted lakes and rivers in five-gallon yellow "Jerry cans."



Photo: Samantha Reinders for NPR

## The problem is the water has disease-causing bacteria. To make it safe to drink, people:







Boil it over a fire.

Pour it through an expensive water filter.

Use expensive chlorine tablets

## Now there is a Better Solution: <u>Pasteurize it in a Haines 2.0 Solar Cooker</u>



- Paint the yellow "Jerry can" black.
- Set it in the Haines 2.0 Solar Cooker in the sun.
- In 4-6 hours it will heat to 145 F. (63 C.) and it will be safe to drink.

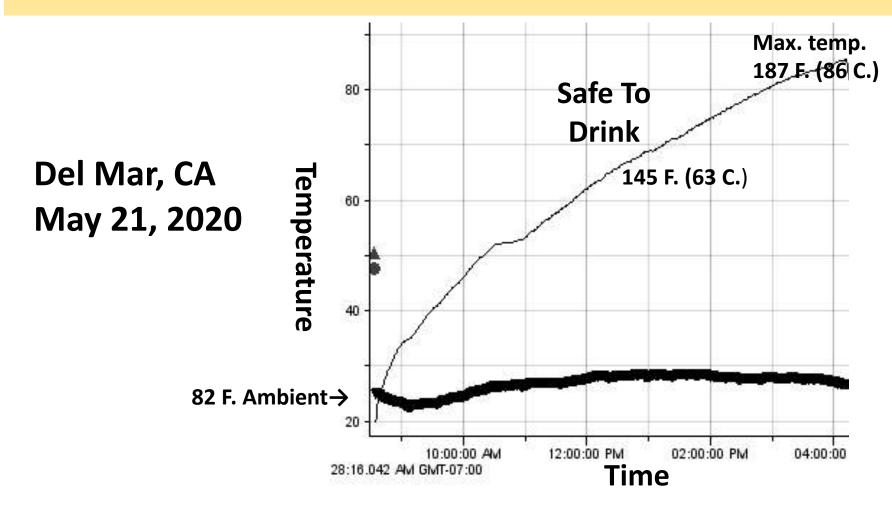


# How to Know When It's Safe? Dangle a WAPI (Water Pasteurization Indicator) in the water.

- ✓ Reusable WAPI costs \$1.
- ✓ When the colored wax melts, the water is safe to drink.
- ✓ To reuse, let the wax harden and turn it upside down.

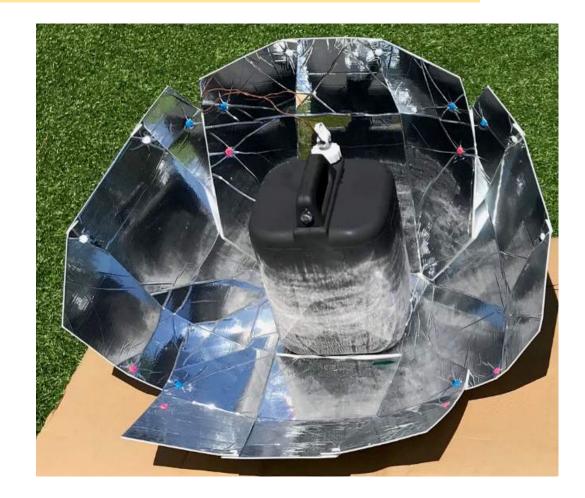


#### Test results: in 4 hours, Haines 2.0 can heat a five gallon Jerry can to 145 F. (63 C.).



## Note that the <u>Entire</u> "Jerry can" is Safe to Drink.

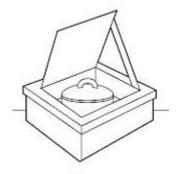
- No need to transfer it to another container.
- Jerry can must be "foodsafe, BPA free."
- Many Jerry cans are "foodgrade" cooking oil containers. See https://www.cdc.gov/safewater/jerrycan.html.

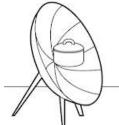


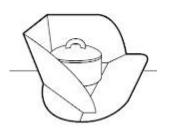
### Other solar cookers will not Pasteurize a Jerry can of water.



- Haines 2.0 accommodates Jerry can's large size—<u>box</u> cookers are too small.
- Five gallons of water weighs 40 pounds—too heavy for a parabolic cooker.
- Haines 2.0 is more powerful than other <u>panel</u> cookers, which cannot pasteurize an entire Jerry can in a day.







Conclusion: The Haines 2.0 Cooker/Oven/Water Pasteurizer Does It All

- Provides 5 gallons of safe drinking water per day.
- Heats water for tea, or washing and bathing.
- Cooks meats and vegetables quickly.
- Bakes bread and cake.



The Haines 2.0 can dramatically cut the cost of water and fuel in villages and refugee camps.

Imagine every sunny day:

- Five gallons of drinking water without boiling.
- Hot water for tea, or washing and bathing.
- Cooking 2 meals a day.

## With NO Fuel!



#### For More Information, go to: www.HainesSolarCookers.com



#### or Contact:

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