

Lauren Emer
Username: Lemer
laurenkemer@gmail.com
Florida International University

Choose three items you use/consume/wear daily. Consider food, technology, clothing, transportation, etc. Research and find the estimated water footprint of each.

I chose my laptop, tennis shoes, and oats.

- How much water is required to produce each?
 - Laptop- According to National Geographic, the water needed to create a laptop is about the same as is needed to do 70 loads of laundry (40 gallons/load * 70 loads= 2,800 gallons). I would imagine this estimate is low considering the water required to create a smartphone is 3,190 gallons according to today's infographic.
 - Oats- Processing/producing 1 pound of rolled/flaked oats requires 290 gallons.
 - Paper towels- It takes about 20,000 gallons to make 1 ton of paper towels, this translates to about 10 gallons/pound. One roll of paper towels is about 0.625 pounds so that means 1 roll of paper towels requires about 6.25 gallons of water. (20,000 gallons/ton * 1ton/2000lbs = 10 gallons/lb* 0.625 lbs/roll= 6.25 gallons/roll)
- Explain why those items require that amount of water.
 - Laptop- Minerals and metals such as aluminum and tin are required for creating the computer and the battery. These must be mined and processed, which both require lots of water. This estimate also does not include water required for the gas used to transport the laptop to my home after purchase, or for the packaging supplies.
 - Oats- Water used to produce oats, amongst other crops can be found in pesticides, typical watering practices, and fertilization.
 - Paper towels- Much like regular paper, paper towels require the creation of a pulp- which involves mixing water and wood. Water is also needed to raise the trees which are eventually cut up to make paper products.

Reflect on your research and briefly answer the following:

- What surprised you about the water intensity of the items you use every day?
 - I was surprised at the amount of water required to produce oats. I always thought of oats as a sustainable food choice, hence why I eat it so much, but there are many other crops that require much less water.
- Is there a more sustainable alternative to that item or does conserving water mean cutting it out altogether? Is that feasible?
 - After conducting this research, I think it is best to cut out paper towels. Some sources state that recycled paper towels can save thousands of

gallons of water, but other sources state that making recycled paper products requires more water than virgin products. I do not need to use them and could opt for reusable rags, which also minimize waste.

Sources

Laptop:

<https://homeguides.sfgate.com/laptops-affect-environment-78757.html>

<https://www.nationalgeographic.com/environment/freshwater/water-conservation-tips/>

Oats:

https://www.huffpost.com/entry/food-water-footprint_n_5952862

<https://www.cdc.gov/healthywater/other/agricultural/index.html>

Paper Towels:

<https://pollybarks.com/break-up-with-paper-towels/>

<https://www.cockeyed.com/science/weight/paper-towels.html>

<https://sciencing.com/process-making-paper-towels-5242274.html>

<https://www.sierraclub.org/sierra/ask-mr-green/2014/03/hey-mr-green-it-more-ecofriendly-use-rags-or-paper-towels>

<https://homeguides.sfgate.com/much-water-mini-washer-use-85056.html>

To Paper Towel or Not

A water footprint cost analysis of paper towels vs. reusable rags

1 roll = 6.25 gallons

1 rag = No additional water

(Already in home, scrap fabric, thrifted) (Just add to next load of laundry)

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eco_lerner Who else is ashamed to admit their love for paper towels? They're convenient and compostable but did you know that making just one roll of paper towels requires about 6.25 gallons of water? This water is used to irrigate the trees which are eventually cut up and combined with more water to create the pulp required for most paper products. Compare this with using a rag (found around the house, made of reused fabric, or thrifted) which could be water neutral, requiring no additional water to your weekly footprint (just add to your next laundry load or save the water while your shower is warming up to hand wash). #pgc2020 @turninggreenorg

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Caption

Who else is ashamed to admit their love for paper towels? They're convenient and compostable but did you know that making just one roll of paper towels requires about 6.25 gallons of water? This water is used to irrigate the trees which are eventually cut up and combined with more water to create the pulp required for most paper products. Compare this with using a rag (found around the house, made of reused fabric, or thrifted) which could be water neutral, requiring no additional water to your weekly footprint (just add to your next laundry load or save the water while your shower is warming up to hand wash). [#pgc2020](#) [@turninggreenorg](#)