

Green Lab Tips

SEPTEMBER 17

UVA SUSTAINABILITY
Green Labs



SUSTAINABILITY · UVA
From the Grounds Up

-
- 1) A single Ultra Low Temp (ULT) freezer set to -80C can use as much energy as an average American household. You can reduce your environmental impact by switching to -70C, as most lab materials can be stored safely at this temperature. Email greenlabs@virginia.edu to learn more!
 - 2) Switching from -80C to -70C will save energy AND extend the life of your freezer. Make the change today!
 - 3) Improving freezer inventory systems and performing annual cleanouts can help to reduce door-open time searching for needed materials. Close the freezer door to prevent ice buildup!
 - 4) A single chemical fume hood can use up to three times as much energy as an average American household. Keeping the hood sash lowered when not in use is one of the easiest ways to reduce your carbon footprint. This small step also improves researcher safety in the lab environment.
 - 5) Did you know that the University of Virginia saved nearly 40,000 kWh/year in the 2017 North American Laboratory Freezer Challenge? Sign up to participate today to help UVA reduce emissions.
 - 6) For safety and optimal chemical fume hood performance, always remember to have a clean work space. Avoid using your chemical fume hood for long-term storage of chemicals or lab materials.
 - 7) Ask your favorite lab vendors about their waste reduction programs. Do they reuse shipping materials? Do they have refillable containers designed for reuse (as in pipette tip racks that can be loaded into older tip boxes?). The more we ask, the more we see change!
 - 8) Did you know you can recycle media bottles, ethanol bottles, and film wrapping in any UVA Recycling container for plastics? Be sure to triple rinse and deface any remaining labels.
 - 9) Do NOT recycle anything that has been exposed to biohazard, radioactive, toxic, acidic, or basic materials.
 - 10) Are you deicing and defrosting appropriately? Ultra low temp freezers (-60 to -80C) should be de-iced about once every 1-2 months. This does not require shutdown or thawing, but simply removing ice from the gaskets and shelving units (gently!). Standard freezers (-20 to -40C) should be shut down, cleaned out, and defrosted once per year. Want more detailed instructions on safe management of cold storage? Email greenlabs@virginia.edu.
 - 11) Did you know an autoclave can use about 30-50 gallons of water a day? Always remember to use an autoclave efficiently by running full loads.
 - 12) Maintain a chemical inventory to prevent unnecessary purchasing and to ensure that expired chemicals are safely disposed of.

It's hard to know when a "green" product is actually better for the environment. To shop smart for lab products, look for the ACT label (Accountability, Consistency, and Transparency). There's a full database of lab products using this label (<https://act.mygreenlab.org/act-database.html>).