

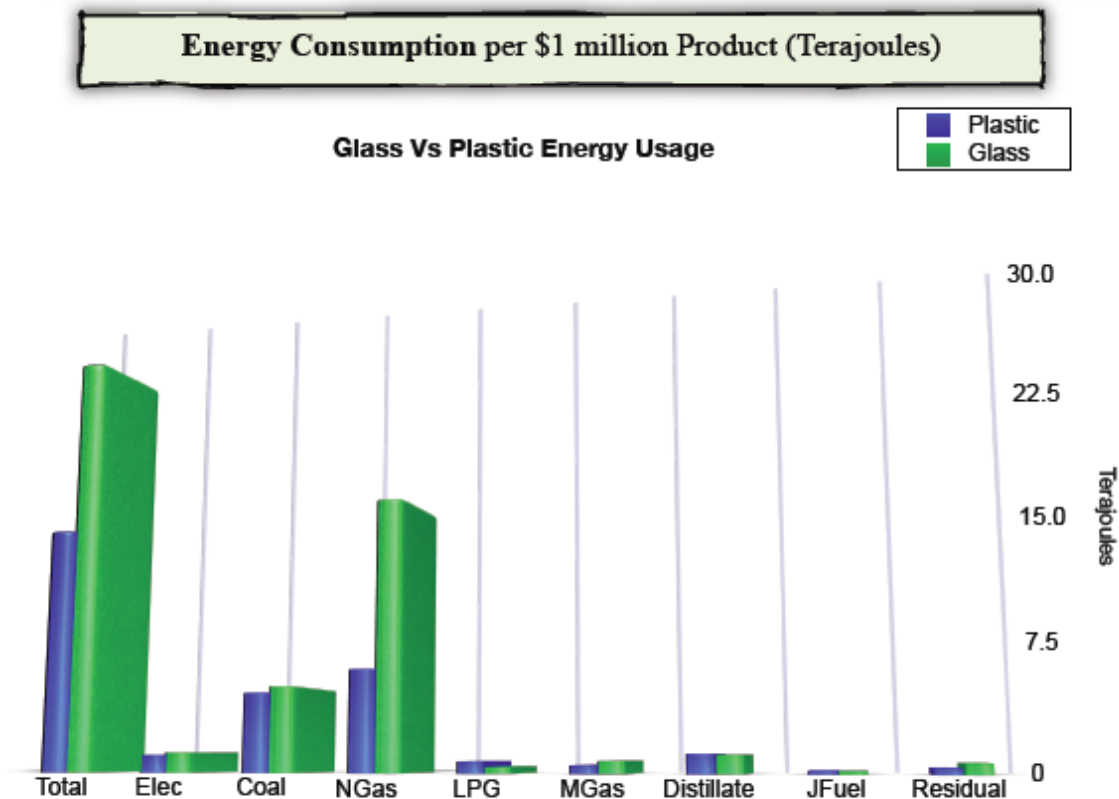
Glass vs. Plastic

Which is Greener?

Ever since Hardy Diagnostics has switched most of the tubed culture media over to polycarbonate plastic tubes, some customers have voiced a concern that this was not a very “green” thing to do, and not conserving the precious resources of our planet.

In a recent study at the Carnegie Mellon University, researchers asked the same question. Which is more environmentally friendly to produce... **Glass or Plastic?**

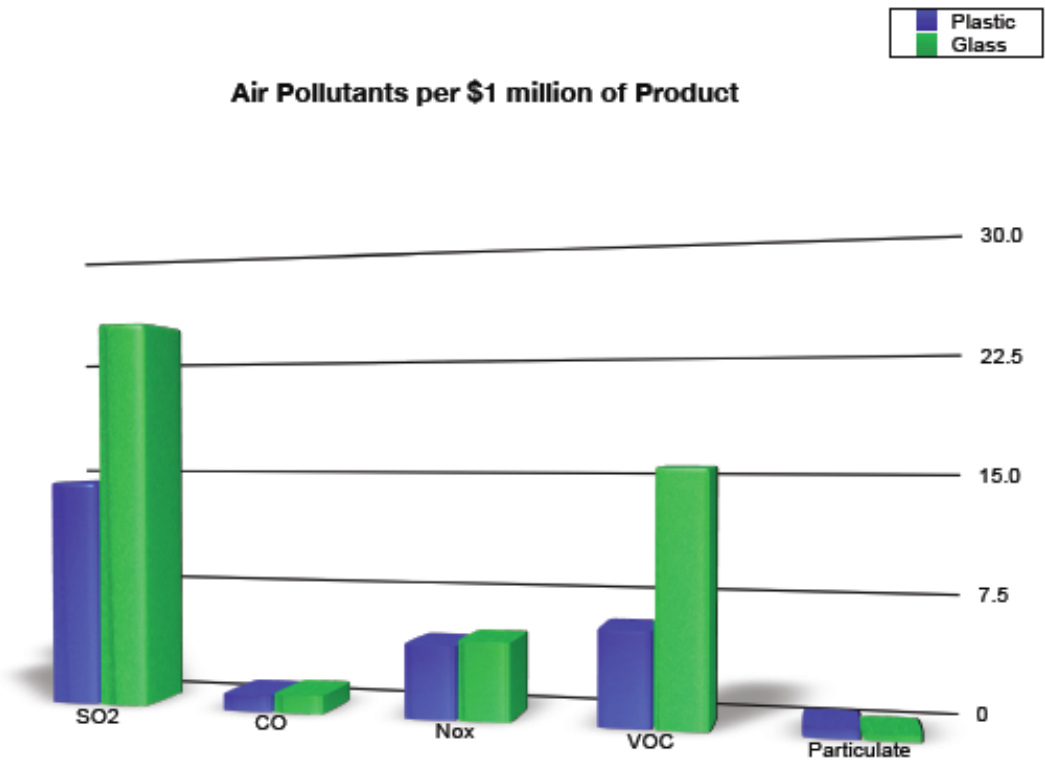
The three charts below will show that the energy efficiency of plastic production beats that of glass by a factor of two; reduction of air pollution by a factor of three; and reduction of carbon dioxide production by a factor of seven!



Glass consumes nearly two times more energy to produce than plastic.

The above information is summarized from the Economic Input-Output Cycle Assessment by Carnegie Mellon University Green Design Institute (2008).

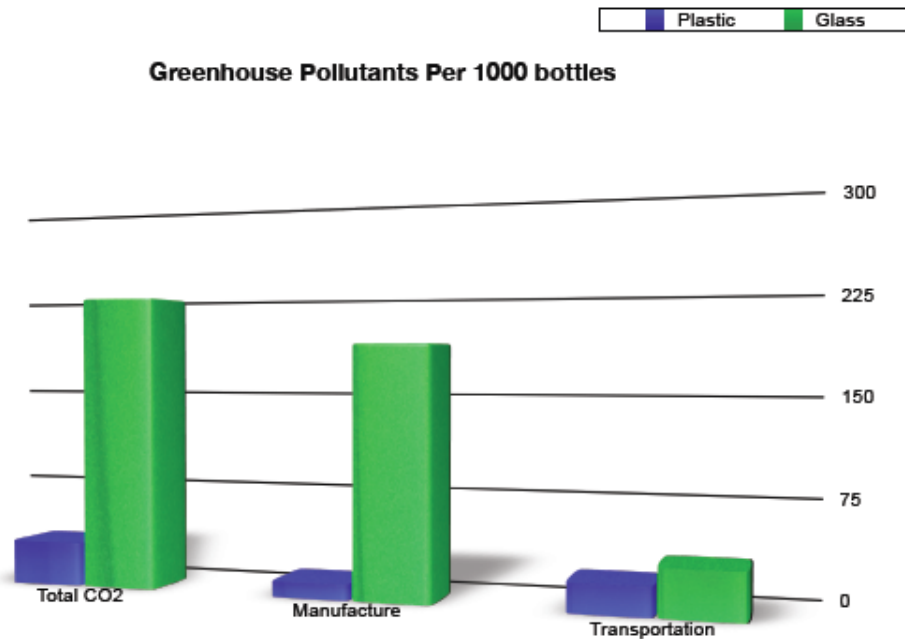
Air Pollutants per \$1 million Product (metric tons)



Glass produces nearly three times more air pollution than plastic.

The above information is summarized from the Economic Input-Output Cycle Assessment by Carnegie Mellon University Green Design Institute (2008).

Greenhouse Gas Pollutants per 1000 bottles (metric tons)



Glass creates nearly seven times more global warming gases than plastic.

The above information is summarized from the Economic Input-Output Cycle Assessment by Carnegie Mellon University Green Design Institute (2008)

Here are some other factors to consider when comparing glass to plastic.

- Glass is inherently heavier than plastic and requires more energy to ship it long distances.
- Glass is more brittle than plastic, and can present a safety hazard to health care workers.
- Glass contains alkaline residues that can create an increase in pH over time, which can be harmful to the microorganisms that one is attempting to grow.

On the other hand, the main concern with plastic production is the generation of dangerous chemicals, such as bisphenol-A, plasticizers, and phthalates; even though the plastic manufacturers are making some progress in eliminating these substances from their processes.

All in all, I think you will agree that the utilization of plastic containers by Hardy was the “green” thing to do, at least until a better container comes along.