BIRDBRAINED SCIENCE

ECO-FRIENDLY HAS NEVER TASTED SO GOOD

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It's an unspoken debate as old as time: glass, aluminum or plastic? Which material makes the best bottle?

Do you prefer the pop that comes with the purchase of a glass bottle? The crisp crack that comes when drinking from a cold aluminum can? Or maybe the sibilant snap that comes when unsealing a plastic bottle?

Personally, I've always been biased towards glass — it's old but gold. For me, nothing beats a nice cold glass of Coca-Cola. It's a guilty pleasure, but a good Coke has gotten me through many late-night papers. It's convenient and glass has some significant sustainable advantages compared to the other two options. While glass bottles are more carbon-intensive to manufacture because of the high heat needed to make them, they are easily reusable. In fact, recycled glass is considerably less carbon-intensive compared to unrecycled glass and outperforms both plastic and aluminum in a circular economy. Unlike aluminum or plastic, glass is chemically inert and doesn't introduce the same concerns about material pollutants leaking into the environment.

I'm not alone with this preference. Consumer demand for glass bottles is rising. Over 70% of Americans now prefer glass bottles because of the absence of harmful chemicals and its overall recyclability. According to a 2024 consumer study published by O-I Glass, 61% of consumers claimed that glass conveys better taste than other packaging materials.

But why do consumers overwhelmingly want their beverages in glass bottles? Many would assume that the chemical composition of glass' various materials plays a role. This assumption is only partially correct. The material of the container does interact with the drink. Glass, for example, is impermeable, meaning it doesn't allow gases to pass through it. This quality helps preserve carbonation and prevents oxygen from entering the bottle.

Plastic bottles, on the other hand, are slightly more permeable. Over time, this weakness can allow gases to move through plastic more readily, affecting carbonation and aroma. These differences, however, are often too subtle to affect the taste of a drink.

Other consumers worry that microplastics in bottles can impact the taste of beverages, especially with — you guessed it — plastic bottles.

Research has shown that microplastics are often present in bottled beverages, though the bottle itself is only one possible source. As a result of our heavily polluted world, microplastics are everywhere. Plastic particles can also come from filtration systems, processing equipment, caps and environmental exposure during production — meaning plastic is present in every beverage, regardless of container. Even glass isn't safe. A 2025 study by the French food safety agency ANSES found that glass bottles could contain just as many microplastics as plastic bottles. This similarity was attributed to possible abrasion from plastic-lined caps rather than from the bottles themselves.



Essentially, the sustainability of all containers, at least in terms of microplastics, is relatively moot. Regardless, microplastics are too minute to affect the taste of beverages.

The reality is that we think glass bottles taste better because we expect them to. We build a notion of what a glass bottle should be in our heads, and as a result, we taste what we expect to taste. This phenomenon is known in psychology as a schema: a cognitive framework that helps people organize, interpret and process incoming information. Glass, for instance, has a distinct weight, clarity and aesthetic. It signals quality and refinement. Wine, champagne, craft soda, that weirdly fancy and overpriced water you always see on the grocery store shelf but never buy — all are served in glass.

Glass's material property also plays a role. Glass is more temperature-insulating than other materials, making your brain perceive the drink as fresher. It's no surprise that a 2019 study published in the International Journal of Hospitality Management found that the vessel a beverage is served in influences how people rate its taste — even when the drink itself is identical.

So yes, drinks from glass bottles may seem to taste better. Crazily enough, though, it's all in your head. But does it matter? Clearly, the glass bottle still tastes just as good regardless of its chemical makeup. So why not make the sustainable choice? Go out and crack open that glass bottle — after all, eco-friendly has never tasted so good.

LOGO BY COLBI LORANGER, ASSOCIATE ARTIST EDITOR/THE DAILY CAMPUS

SUBOG Weekly Events:

September 27th - October 4th

Homecoming Parade – 9.27 @ 1:30 PM along Hillside Road
Homecoming Carnival – 9.27 @ 2 PM at Founders Green
Homecoming Pageant – 9.28 @ 6 PM in the Student Union Theater
SUBOG x USG Voter Registration – 10.1 @ 11 AM at the SU Mall
Coffee House – 10.1 @ 4:30 PM at the Benton
Homecoming Lip Sync – 10.1 @ 7 PM in the Jorgensen Theater
Fan Fest Friday – 10.2 @ 1 PM at the SU Mall

Any questions? Email subog@uconn.edu



Coca Cola's glass container, located on the cover of Time magazine. While glass bottles are more carbon-intensive to manufacture because of the high heat needed to make them, they are easily reusable.

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