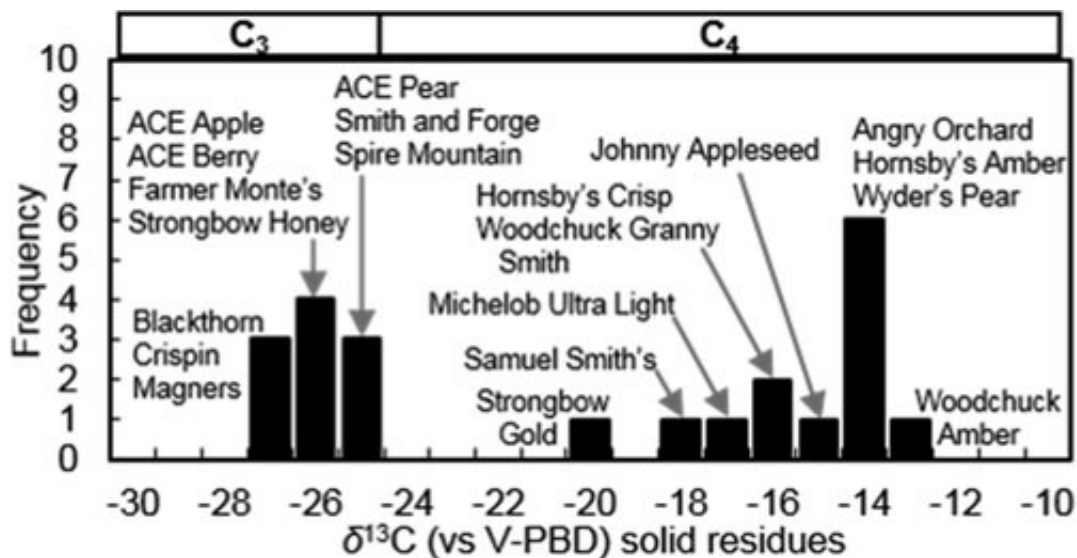


Hard cider, with a shot of sugar

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Credit: American Chemical Society

Autumn is the season for falling leaves, pumpkin-spice-flavored everything and apple cider. Yet new research indicates that, in addition to alcohol, some hard ciders may contain a hefty dose of added sugar, which may not be disclosed on the label. The researchers report their results in ACS' *Journal of Agricultural and Food Chemistry*.

Hard cider, made by fermenting apples or apple juice concentrate, is growing in popularity in the U.S. Apples contain plenty of [natural sugars](#), so adding sweeteners to cider is usually unnecessary. However, cider makers could add sugar to further sweeten the beverage or speed fermentation. Although manufacturers are required to list the amount of

sugars per serving on the nutrition facts panel, they don't have to discriminate between those that naturally occur in the product in those that are put in later. Consuming excessive amounts of added sugars can increase the risk of developing conditions, such as diabetes and [high blood pressure](#). In light of the World Health Organization's 2015 recommendation to limit added sugars to 25 grams per day, Sheryl Singerling and colleagues wanted to find out if several popular brands of hard ciders contain [added sugar](#) not disclosed in the ingredients list.

Sugars from apples have different ratios of carbon-12 and carbon-13 isotopes than sugars from cane or [corn syrup](#) because the plants use different photosynthetic pathways. So Singerling (then at the University of New Mexico) and coworkers used mass spectrometry to analyze the carbon isotope compositions of 23 ciders sold in the U.S. Six of the ciders were imported from Europe, while the rest were made domestically. They found that 60 percent of domestic ciders contained added sugars from cane or corn syrup, compared with 20 percent of imported ciders. However, beet sugar is the most common sweetener in Europe, and the method couldn't distinguish between apple and beet sugars or honey. Because of widespread discrepancies between isotope ratios expected from ingredients lists and the observed values, the researchers concluded that labels are not a reliable way to determine whether a cider has added [sugar](#).

More information: Sheryl A. Singerling et al. Measurement of Adjuncts in Hard Ciders Obtainable in the United States Using Carbon Isotopes, *Journal of Agricultural and Food Chemistry* (2018). [DOI: 10.1021/acs.jafc.8b05415](https://doi.org/10.1021/acs.jafc.8b05415)

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