

# Biobased chemicals take center stage

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Usually, when oil prices fall, biobased chemical firms struggle. But these days, alternatives to petroleum-based products are undergoing a renaissance. Consumers are increasingly eco-conscious, leading companies to partner with chemical manufacturers to develop products that are both sustainable and high performing. A new article in *Chemical & Engineering News*, the weekly newsmagazine of the American Chemical Society, details how manufacturers are making this pivot toward nature-based products.

Biobased chemicals are not new to the consumer market, and they've struggled to gain a foothold in comparison to their less expensive, petroleum-based counterparts. In recent years, concerns about [plastic waste](#) and [greenhouse gas emissions](#) have transformed consumer habits, despite the surplus of oil keeping the price of petroleum-based products low. Many shoppers are now willing to pay a premium for more environmentally friendly products, especially if they outperform their traditional counterparts, writes Senior Business Editor Melody Bomgardner. Experts say that companies need to be strategic about how they market their new biobased products—targeting areas where customers are already looking to make changes is a key to success.

Manufacturers of diapers, [consumer electronics](#) and automotive coatings are working with chemical firms to transform their respective markets. Disposable diapers and similar products generate 3.6 million tons of waste each year, according to the US Environmental Protection Agency. Even if other materials in the diaper are touted as "natural," most are made with petroleum-derived, super-absorbent acrylic acid. Now,

[chemical](#) companies are developing biobased procedures to make acrylic acid from sugar. Meanwhile, the [technology sector](#) is looking to create new biobased materials that outperform current ones. One result is Hyaline, a film made from a sugar-derived monomer for use in electronic touchscreen displays. According to the manufacturer, machine-learning specialist Zymergen, the film is thinner, more durable and performs better with biometrics than its petroleum-based counterpart. The automotive coatings industry is working to use monomers and polymers that can be made from sugar to make better-performing products that lower emissions and energy use. These industries are hopeful that their investment in biobased materials will pay off with eco-conscious customers.

**More information:** "Is clarity coming for biobased chemicals?," [cen.acs.org/environment/sustain...sed-chemicals/98/i26](https://cen.acs.org/environment/sustain...sed-chemicals/98/i26)

Provided by American Chemical Society

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