Meeting demand for 'natural' vanilla calls for creativity

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In recent years, consumers have increasingly been looking for "natural" ingredients in their food products. But when it comes to one of the world's most popular flavors, vanilla, meeting that demand has been difficult. So food scientists are scrambling for new ways to produce vanillin—the main vanilla flavor molecule—without losing the natural label, according to an article in Chemical & Engineering News (C&EN), the weekly newsmagazine of the American Chemical Society.

Melody M. Bomgardner, a senior editor at C&EN, notes that less than 1 percent of vanilla flavor comes from vanilla orchids. Some of the rest has been made from pine bark, clove oil, rice bran and lignin. And the vast majority—about 85 percent—is synthesized from guaiacol, a petrochemical. This ratio poses a problem as consumers demand more natural products. Responding to the shift, major food company Nestlé announced it would eliminate artificial additives, which would include vanillin, from its chocolates for the U.S. market. How they and others in the industry will make the change is unclear, but potential solutions are in the works.

Some companies could turn to vanilla made from various plant extracts that could still be labeled natural. To boost its production from the purest source, companies are setting up grower programs in Madagascar, where the vanilla is known for its rummy taste and sweet aroma. And, in parallel, researchers are using genetics to coax yeast, plants, even the vanilla orchid itself, to produce more of the cherished flavor.

More information: The problem with vanilla, cen.acs.org/articles/94/i36/problem-vanilla.html

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