

Synbio flavors are natural, sustainable and GMO free but won't get Non-GMO stamp

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.**

Synthetic biology will become a “permanent and growing aspect of the flavors and fragrances landscape” predicts a new report from Lux Research, which says the approach is more sustainable than traditional techniques such as synthesizing flavors from petrochemicals or devoting vast tracts of land to growing plants containing minuscule levels of target compounds.

While definitions of synthetic biology vary, the technique typically involves producing ingredients [e.g. flavors, sweeteners, oils] in bioreactors via a fermentation process using micro-organisms such as algae or baker's yeast with genetically engineered pathways that produce target molecules (eg. vanillin) via the insertion of foreign genes or through non-transgenic gene editing.

While this creates PR challenges, many leading flavor companies are embracing the technology as it is cheaper, quicker and more sustainable than traditional techniques.

As fermentation is regarded by the FDA as a natural process, flavors produced via fermentation are also considered ‘natural flavors’ by the FDA, although many anti-GMO activists believe this is misleading if the micro-organisms used have been genetically engineered.

When it comes to non-GMO labeling the situation is more complicated. For example Evolva's vanillin is GMO-free as the genetically engineered yeast used to make it is not present in the final product, so it would not require a GMO label in Europe or Vermont. However, it wouldn't pass muster with the Non-GMO Project, which recently said that ingredients produced via ‘synthetic biology’ [will not qualify](#) for the Non-GMO Project Verified Stamp.

**Read full, original post:** Lux Research: Cost, speed and sustainability benefits of synthetic biology will make it a ‘permanent and growing aspect’ of the flavors market