

Biodegradable plastic from plants: How GE camelina could advance industrial sustainability

Skeptics beware, the proposition around growing a genuinely natural biodegradable plastic may be tied to a technology whose time has arrived.

On Jan. 19, 2021, Yield10 Bioscience pulled back the crop curtain on two prototype lines of camelina genetically engineered to produce PHA bioplastic within seed. PHAs are ubiquitous in nature and entirely biodegradable, greatly enhancing the appeal of agriculturally-produced plastic for a vast spectrum of industrial and consumer items.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter.

[SIGN UP](#)

Significantly, farm-grown PHAs may have further application as a zero-waste water treatment for nitrate pollution, and as livestock feed ingredients. There remains a substantial gap between the bid and the ask, but if PHA-related technology proves economical from field production to processing plant, bioplastic—literally grown by farmers—could be massive for the agriculture industry, particularly in an age when ever-expanding synthetic plastic graveyards are a mounting international concern.

...

In the near future, [Yield10 Bioscience's Dr. Oliver] Peoples believes farmers will utilize PHA content as a contributing determinant of price received per bushel. "We know PHA will command a very good price structure, at least a \$1 per pound and that looks quite nice versus a 40-cent commodity oil. The math looks very good for the whole value chain and farmer."

[Read the original post](#)