

## Podcast: Gene-edited avocados in development could stop quick browning and reduce food waste

The global consumption and trade of avocados have seen remarkable growth, but commercial challenges exist. A natural enzymatic process in avocado fruit leads to significant browning when the flesh is exposed to air, resulting in economic losses and reduced consumer appeal. GreenVenus took up the challenge to tackle this issue by leveraging the power of CRISPR to develop a non-GMO solution.

Using CRISPR editing, GreenVenus successfully produced multiple lines of avocados with enhanced resistance to browning by “knocking out” a key gene in the browning pathway, polyphenol oxidase (PPO). Several elite commercial varieties are in the developmental pipeline; some are currently under analysis.

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This breakthrough represents a major step forward in the field of avocado production and promises profound benefits for farmers, distributors, and consumers alike. Browning-resistant avocados would reduce waste and enhance post-harvest shelf life, providing farmers and distributors with extended windows for selling the fruit. Furthermore, consumers could enjoy the same great taste and nutritional benefits of avocados without concerns about browning, making it easier to incorporate this healthy and versatile fruit into their daily lives.

**[Editor’s note: The above excerpt is from GreenVenus. [Read the original press release here.](#)]**

In the podcast below, Dr. Jeff Touchman discusses the challenges and opportunities, regulatory hurdles, and specifics of the edits, as well as the potential future of a genetically engineered avocado with Dr. Kevin Folta.

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