

## Seedless blackberries with a year-round growing season? Gene editing opens up new doors for radical improvements in the long-stagnant berry market

Genetic variation plus environmental effects are what make us, and the berries we grow, what we are. The interaction of these two factors continues to be exciting and challenging in berry breeding and production.

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One of the biggest challenges with existing genetic variation occurs when a trait is desired but there is no known source for it. This means traditional breeding cannot make progress with the desired trait. Gene editing, often using Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) technology, offers a new way to create genetic variation by precisely changing the DNA of an organism without introducing unrelated DNA such as occurs in transformation or GMO technology.

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Pairwise, an [innovative company based in Durham, NC](#), has undertaken the improvement of caneberries, specifically blackberries, using gene-editing techniques.

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"Consumers don't like seeds in blackberries, and that led to the first trait to target — seedlessness (similar to seedless grapes). Further, we identified additional traits to improve including plant architecture (fruit easily accessible on fruiting laterals), everbearing (season-long production), plus thornlessness. These traits will help harvest laborers and growers," [said Pairwise Vice President Tom Spaulding.]

**[This is an excerpt. Read the original post here.](#)**