African scientists have created a CRISPR-edited banana that's resistant to a disease ravaging farms across the continent

Banana xanthomonas wilt (BXW) is a bacterial disease that spreads easily and kills any banana plant it infects — farmers' <u>only recourse</u> once an infection takes hold is to cut down and burn the entire plant.

Every species of cultivated banana is susceptible to BXW, and in places where the fruit is a primary source of both income and food, such as Africa, an infection can threaten not only farmers' livelihoods but the entire local economy.

...

In an attempt to stop the devastation caused by BXW, International Institute of Tropical Agriculture (IITA) scientists in Kenya set out to develop a disease-resistant banana.

For their <u>study</u>, they focused on a gene called downy mildew resistance 6 (DMR6) — during a pathogen infection, the expression of this gene increases, and that suppresses the plant's immune function.

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

Bananas are notoriously susceptible to disease because they are <u>all clones</u>. In the past, varieties of banana have been driven <u>virtually extinct</u> by infections like Panama Disease, and today, viruses, bacteria, and fungi again <u>threaten</u> the world's banana supply.

But if CRISPR can help bananas survive BXW, it may offer a solution to the plant's other enemies, too.

Read the original post