In Southeast Asia, most smallholder farmers rely on cassava: its starch-rich roots form the basis of an industry that supports millions of producers. In the past decade, however, Cassava Witches' Broom disease has stunted plants, reducing harvests to levels that barely permit affected farmers to eke out a living.

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In a recent breakthrough, Alliance [Biodiversity & CIAT] researchers compared DNA from healthy and diseased plant samples to reveal the underlying culprit behind the disease: the fungus genus *Ceratobasidium*. With these findings, published in <u>Scientific Reports</u>, plant pathologists in Laos, Cambodia, Vietnam and Thailand are better able to track and stop the spread of Witches' Broom disease.

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This was possible with the latest in scientific innovation: nanotechnology, a field that encompasses a world imperceptible to the human eye, and empowers researchers to understand structures at a molecular level.

Since 2017, the Alliance has actively incorporated nanotechnology into its research, specifically through Oxford Nanopore DNA/RNA sequencing technology. This advanced tool provides insight into the most minute mysteries of plant life, accurately identifying pathogens such as viruses, bacteria and fungi that affect crops.

This is an excerpt. Read the original post here