

# Secrets of plant warfare underpin quest for safer, more secure global food supply

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Like espionage agents probing an enemy's fortifications, scientists are snooping out the innermost secrets of the amazing defense mechanisms that plants use to protect themselves from diseases. The effort — intended to discover ways of bolstering those natural defenses and enhance the safety and security of the global food supply — is the topic of an article in the current edition of Chemical & Engineering News (C&EN), ACS' weekly newsmagazine.

C&EN Associate Editor Sarah Everts notes that [plants](#) use a battery of cunning mechanisms to protect themselves from disease. When microbes breach those immune defenses, epidemics like the Irish potato famine or wheat stem rust can mean starvation and displacement for millions of people.

The article describes how scientists are intensively studying plant immune mechanisms. Over the last 20 years, for instance, scientists have made inroads into the complex chemical architecture of those defenses. The insights include the identification of a gene for the first receptor protein involved in plant immunity as well as the discovery of plant structures that recognize invading microorganisms. Those and other insights could underpin development of more effective and more sustainable ways of fighting crop pests.

**More information:** "Vegetative Warfare". This story is available at [pubs.acs.org/cen/science/89/8905sci2.html](http://pubs.acs.org/cen/science/89/8905sci2.html)

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