Crops Get Sick Too

Preventing the perfect storm preserves plant health

All plant diseases require three conditions to occur. By controlling these variables, scientists aim to manage deadly diseases, such as late blight. Around the world, late blight continues to destroy potato fields and, as a result, fuels world hunger.

The perfect storm struck in 1845

Across Europe, conditions were just right for a potato-killing disease called late blight, which attacks the leaves and stems of the potato plant. The perfect storm of warm, moist conditions and a susceptible potato variety led to a massive potato blight in Ireland in 1845, causing the deaths of an estimated 700,000 Irish people.

When to plant

Sick plant

Swimming water mold kills whole potato plant

The pathogen that causes late blight is Phytophthora infestans, which means “plant destroyer.” It looks like a fungus or mold, but it is actually a water mold, or oomycete (oof-my-seet), which develops spores that swim in water on leaves. Late blight kills the entire potato plant, causing leaves and stems to collapse and the potato tuber to rot.

Scientist on the Spot

Late blight strikes again

Late blight still causes devastating epidemics on both tomato and potato crops. In 1998, the pathogen was found on tomatoes in California, leading to significant crop losses and economic impacts. Scientists are working to develop resistant varieties and improve management practices to control late blight.

The American Phytopathological Society

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