

Managing *Phytophthora* in Pumpkins & Melons – The New York Experience

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Phytophthora blight, caused by the pathogen *Phytophthora capsici*, is a devastating disease of many cucurbit (squash, melon, cucumber, gourd, and pumpkin) and solanaceous (pepper, eggplant, and tomato) crops. The disease has also been found on snap and lima beans. First identified in New Mexico in 1922, *Phytophthora* blight can now be found throughout the world. In recent years, the disease has increased in importance in New York and eastern states, causing severe losses in a short period of time following heavy rainfall events. The pathogen is known to spread through standing or running water, in contaminated soil such as on tractor tires or workers boots, and on contaminated culled fruit. Once the pathogen has infected a plant, it can reproduce very quickly generating thousands or even millions of spores. Disease management of *Phytophthora* is difficult because the pathogen has a broad host range, can reproduce quickly, and spread rapidly in favorable environmental conditions. Additionally, the pathogen can survive in the soil for at least a decade. It is possible to manage *Phytophthora*, but a multi-pronged approach must be used. Strategies that have been effective in New York will be discussed.



Christine is a vegetable pathologist at Cornell University, and has studied *Phytophthora* diseases for over a decade. She grew up in Northeast Minneapolis and went to Michigan State University. Her lab focuses on the biology and management of pathogens of vegetable crops.