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Given the expense and often-contentious environmental ramifications of fungicide usage, my experiments sought to validate a qRT-PCR based disease-forecasting system for late blight, thereby providing an early warning system for growers. Such a system takes advantage of the fact that airborne sporangia facilitate the spread of *Phytophthora infestans*. Air sampling by spore traps followed by a PCR-based assay may thus be employed to detect the arrival of *P. infestans* in an area. Adoption at the farm scale may enable growers to more appropriately time the application of fungicides.