

MOLECULAR IDENTIFICATION OF THE ‘BLACK SHADOW’ PATHOGEN OF BLUEBERRY

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‘Black Shadow’ is an emerging disease on highbush blueberries grown in New Jersey. The disease appears as black mycelium on the surface of 1-2 year old stems. Affected bushes generally decline and have reduced yields. In culture, isolates of the fungus grow yeast-like, as single cells that proliferate by budding. Observations based on morphology and growth habit led to preliminary identification of the causal agent as *Aureobasidium pullulans*. This conclusion was supported by an abstract published several years ago describing *A. pullulans* as pathogenic on blueberry. To verify identification, the nuclear rDNA region containing ITS2, 5.8S rDNA and ITS 4 was amplified from several isolates of the fungus, cloned and sequenced. Sequence similarity searches using BLAST suggested the isolated species was *Rhizosphaera kalkoffii*. Interestingly, this species of fungus has only been reported as a pathogen of conifers where it causes a disease known as ‘needle cast’.