INCREASING EFFICACY OF *AMPELOMYCES QUISQUALIS* BY THE USE OF AN ACTIVATOR

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Powdery mildew is one of the most important diseases worldwide. High disease pressure is linked to successful overwintering of pathogen inoculum and suitable environmental conditions for its development. Pycnidial fungi belonging to the genus *Ampelomyces* are the most widespread natural antagonists of powdery mildew and they are unique in their ability to actively infect and kill the causal agents of this disease (*Erysiphales*). The efficacyof *A. quisqualis* in the biological control of its fungal hosts is often inconsistent under field conditions whereas the most successful biocontrol experiments using *A. quisqualis* were carried out in greenhouses where temperature and relative humidity (RH) are suitable to the mycoparasite. Clearly, the high RH requirement of *A. quisqualis* represents one of the major obstacles in its use as a reliable biocontrol agent. In this study, novel tools for exploring future application of *A. quisqualis* in biological control of powdery mildew fungi were investigated. For this purpose, selection of new highly effective mycoparasitic strains and identification of specific mechanisms to increase the biocontrol efficiency are considered to be the most appropriate methods. Thus, some attempts were made to enhance the efficacy of different strains of *A. quisqualis*. A procedure to increase the performance of *A. quisqualis* in the biological control of powdery mildews was developed by increasing and speading the conidial germination rate of the fungus before leaf application. The method may be useful to improved the efficacy of biological control agents under limiting temperature and RH conditions.