Anti-fungal activity of KACC91172 against barley powdery mildew by Erysiphe graminis

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Abstract

Barley powdery mildew is one of the important diseases occurring in both winter and spring barley and increases in recent years. It is widely spread from humid tosemi-arid regions. Its symptom is white fluffy patches in the beginning and grey in mature. It is caused by Erysiphe graminis1). The infection reduces photosynthesis in leaf surfaces and increases energy consumption in host plants. The fungus survives as spores in summer on soil or plants. Pesticides to control it are alphaflo and foliaflo-C. Due to consumer's rejection to chemical pesticides, however, development of biopesticides is required. Bacillus genus isolated from Korean salt-fermented fishery product, Shrimp-jeotkal showed strong anti-fungal activity against E. graminis. It was identified based on 16S rDNA analysis and scanning electron microscopy.

Reference

1. Baumler S, Sierotzki H, Gisi U, Mohler V, Felsenstein FG, Schwarz G. Evaluation of Erysiphe graminis f sp tritici field isolates for resistance to strobilurin fungicides with different SNP detection systems (2003). Pest Manag Sci.;59(3):310-4.