

Biological control of bacterial soft rot of cabbage

ABSTRACT

Bacterial soft rot disease, caused by *Erwinia carotovora* subsp. *carotovora* (Ecc), is one of the major postharvest diseases of cabbage throughout the world. Chemical control of this disease is ineffective and the high risk of residual content of chemicals in cabbage might be hazardous to consumers. This study was therefore conducted to isolate and identify the potential antagonists that can inhibit the pathogen and hence reduce the disease severity. Two antagonistic bacteria, identified as *Pseudomonas aeruginosa* and *Acinetobacter* genospecies 15, were found to inhibit the growth of Ecc in vitro giving inhibition zones of 2.5cm and 1.0-1.5cm respectively. In vivo evaluation indicated that both antagonistic bacteria were able to reduce the disease severity up to 25%, upon treatment with 10⁶-10⁷ cfu ml of the antagonists.

Keyword: Bacterial soft rot; Biological control