

Abstract

The objective of study was antagonistic microbial screening to control pathogen of strawberry fruit rot and selected organic compounds as coating fruit for control pathogen. The result shows that two antagonistic bacteria K27 and S17 showed spore and mycelium growth inhibition of *Colletotrichum* sp. and *Botrytis* sp. The selected formulation of antagonistic bacteria was found three formulation including 1) rice flour 2) lactose and 3) MCC. The formulations of isolates K27 and S17, they were observed to survive more than 6 months under storage at room temperature.

Testing of the strawberry fruits coated with organic compound, the most effective was found that 2% ascorbic acid and 2% citric acid inhibited the pathogens and unchanged in texture and color of fruit. In greenhouse experiment, the formulations were tested on strawberry leaves by using three formulations of antagonistic bacteria isolates K27 and S17. The formulations sprayed 1 day before and after pathogen inoculation on strawberry leaves, the result showed formulation of isolates K27 and S17 in three formulas sprayed 1 day before pathogen inoculation reduced the severity of the disease, reduced the wound when compared with the control. Therefore, the suggestion used formulation for cultivator, could use three one of three formulation sprayed strawberry before reproductive stage while, during fruit stage could use lactose formula because it does not show white stained defect on fruit skin