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EFFECT OF PRE-HARVEST SPRAYING WITH BIOLOGICAL CONTROL AGENTS ON POSTHARVEST QUALITY OF STRAWBERRY FRUITS DURING REFRIGERATED STORAGE

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ABSTRACT

Strawberry (*Fragaria xananassa*) plants cv. Fortuna, were grown in a local farm (Elkalubia Governorate, Egypt) during the two winter successive seasons of 2013/2014 and 2014/2015. The plants were pre-harvest sprayed with some biological control agents: *Bacillus megaterium* *Trichoderma album*, *Bacillus subtilis*, *Trichoderma asperellum* T34, *Trichoderma viride*, as well as Ravoral (Synthetic fungicide), and tap water as control treatment. The fruits were harvested at a commercial maturity 3/4 color stage and stored at 0°C and 95-98% RH for 15 days. The obtained results indicated that pre-harvest spraying of strawberry fruit with *Trichoderma asperellum* T34 was the most effective treatment for delaying fruit deterioration throughout reducing color changing, decay, and maintaining good appearance, firmness, TSS% and high ascorbic acid content up to 15 days at 0°C+ 95-98% RH as compared with the other treatments.

Key words: Biological Control agents - Quality attributes - Storage -Strawberry.