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Improving the nutritional values of plant products through the use of biological agents such as *Trichoderma viride* in tomato plantations

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1 ABSTRACT

The purpose of this study was to determine whether the use of *Trichoderma* has a beneficial protective effect against pathogens existing on the above ground parts of tomato plants. Samples obtained from isolated and multiplied fungal cultures of *Trichoderma viride* were used for treatment of the above ground parts of tomatoes. In one embodiment, the plants were treated with pathogenic strain of *Fusarium* sp that commonly damages crops. Influence of the fungus *Trichoderma* was determined by quantitative presence of necrosis on leaves in various groups of cultivated tomatoes compared to control samples. The development of seedlings was checked by the length and weight of fresh and dry plants. The experiments were conducted in pot cultures and controlled conditions. The results showed the protective role of *Trichoderma viride* in relation to the *Fusarium* and statistical significant positive effect on the growth and development of tomato seedlings. The group of seedlings treated only with parasitic fungi is characterized to have greater presence of necrosis compared to the group treated with saprophytic fungi and control. *Trichoderma viride* effectively fights plant pathogenic fungus of the genus *Fusarium*. The use of this biological agent in plant protection may restrict the use of chemicals and thus contribute to improve consumers' health.