Reduction of chili fruit anthracnose by irradiated chitosan in Sukhothai province

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Abstract: Field trials were performed to evaluate the effect of foliar application of irradiated chitosan on reduction of chili fruit anthracnose in Sukhothai province. Four field experiments of chili plants were treated with irradiated chitosan and two fields with untreated chitosan were used as a control. The irradiated chitosan (20 ppm) was sprayed at a regular interval of 7-10 days. The results indicated that the incidence of disease symptoms of chili fruits was significantly lower in irradiated chitosan treatment than in a control. The plants treated with irradiated chitosan were infected only 7.75±2.70%, while 14.46±1.0% of infection was found in untreated plants. Moreover, the yield of chili fruits was increased with application of irradiated chitosan. The results suggest that irradiated chitosan can be used as an eco-friendly compound to induce anthracnose defense response as well as to increase the yield of chili fruits.

Keywords: Irradiated chitosan; Anthracnose; Chili; Field