ABSTRACT

DETERMINATION ON EFFICACY OF SOME BIOFUNGICIDES ON MAIN SOIL-BORNE PATHOGENS CAUSING DISEASES ON CUCUMBER UNDER PROTECTED CULTIVATION

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As soil-borne pathogens, *Fusarium oxysporum*, *Rhizoctonia solani* ve *Sclerotinia sclerotiorum*, , causes significant yield losses in the greenhouse grown cucumbers due to wilting and root rot. The objective of this study was to determination of efficacy of certain commercial biofungisite for control of these important pathogens. Under this objective, in the growth chambers studies, the biofungicides, Remedier (*T. harzianum + T. viride*), Companion (*Bacillus subtilis* GB03), Actinovate SP (*Streptomyces lydicus* strain WYEC 108) and T 22 Planter Box (*Trichoderma harzianum* Rifai KRL-AG2), were tested against the isolates of *F. oxysporum*, *R. solani* ve *S. sclerotiorum* by using two different application methods which are seed treatment and soil drenching. Although some fungicides in the seed treatment test gave successful results their effect were not satisfactory because there is no consistency in the data. In the soil drenching test, all biofungicides provided control effect at various degree against all three pathogens. Companion provided up to 75% effect on the control of *F. oxysporum.* The same level of effect were obtained from T-22 and Actinovate on *R. solani*. Actinovate also reduced disease severity of *S. sclerotiorum* by %70. The results of this study indicated that the method of drenching of biofungicides were found to be effective for control of soil-borne pathogens in the greenhouse cucumber production and it may be a good alternative to the present control measure.

Key words: *Fusarium oxysporum, Rhizoctoni solani, Sclerotinia sclerotiorum,* biofungicides, biological control, cucumber