

**APPLICATION OF *Trichoderma harzianum* ON VARIOUS
VARIETIES OF G0 SHALLOT BULBS FOR REDUCING
THE INCIDENT OF FUSARIUM WILT IN THE
SANDY SOIL OF BANTUL YOGYAKARTA**

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ABSTRACT

Efforts to prevent and control fusarium wilt disease include the application of *T. harzianum* and the use of the G0 seed varieties. The aim of the research is to identify the interaction between G0 seed varieties and *T. harzianum* in dealing with *Fusarium oxysporum* wilt attacks, determine which shallot bulb varieties have a higher level of resistance to fusarium wilt attacks and identify the effect of *T. harzianum* application in suppressing *Fusarium oxysporum* wilt attacks in the sand fields of Bantul, Yogyakarta. This research is carried out in January – March 2024 in coastal land, Sanden District, Bantul Regency. The experiment used a *split plot* with two factors, namely the use of *T. harzianum* and G0 seed varieties with 4 treatments and every treatment be repeated 6 times. These factors include V₁T₀: Lokananta Varieties and without *T. harzianum*, V₂T₀: Sanren Varieties and without *T. harzianum*, V₁T₁: Lokananta Varieties and *T. harzianum*, V₂T₁: Sanren Varieties and *T. harzianum*. Data were analyzed statistically *Statistical Product and Service Solutions* (SPSS) ANOVA at the 5% and further tested with *Duncan's Multiple Range Test* (DMRT) at the 5% level of significance. The results showed that there was no interaction between the varieties of G0 shallot bulbs and *T. harzianum* in suppressing the incidence of *F. oxysporum* wilt in the sandy soils of Bantul, Yogyakarta. The Lokananta variety exhibited the highest level of resistance to *Fusarium oxysporum* wilt. However, the application of *T. harzianum* was not effective in reducing the incidence of *F. oxysporum* wilt in this region.

Keywords: *T. harzianum*, G0 seed, fusarium wilt, Shallots