

**EFFECT OF COMBINATION AND APPLICATION TIME
(*Bacillus subtilis* and *Pseudomonas fluorescens*) ON THE INTENSITY OF
TARBLE DISEASE (*Perenosclerospora maydis*) ON CORN
STARCH PLANTING**

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ABSTRACT

*Downy mildew (*Perenosclerospora maydis*) is a major disease of corn plants, one of the alternative controls that can be developed is by utilizing *Bacillus subtilis* and *Pseudomonas fluorescens* bacteria as biological agents. This study aims to determine the effect of the combination and application time of *Bacillus subtilis* and *Pseudomonas fluorescens* on the intensity of downy mildew (*Perenosclerospora maydis*) attack on corn plants. The research was conducted from June to September 2024 at the Plant Protection Laboratory of Jember State Polytechnic, and cultivated land in Kebonsari Village, Sumber Sari District, Jember Regency. This study used a factorial Randomized Group Design (RAK), the first factor was the combination of bacteria, J1 (*Bacillus subtilis* (5ml/l) + *Pseudomonas fluorescens* (20ml/l)), J2 (*Bacillus subtilis* (10ml/l) + *Pseudomonas fluorescens* (35ml/l)), J3 (*Bacillus subtilis* (15ml/l) + *Pseudomonas fluorescens* (50ml/l)) The second factor is application time, T1 (2 times application), T2 (3 times application) repeated 3 times. Observation data were analyzed using the SPSS program with the Analysis of Variance (ANOVA) test and further tested with the Duncan Multiple Range Test (DMRT) at the 5% level. The observation variables consisted of spore identification, plant height, disease incidence, attack intensity and yield components of corn plants. Based on the results of the study on the Effect of Combination and Application Time of Bacteria *B. subtilis* and *P. fluorescens* on the Attack Intensity of Downy Mildew Disease (*Perenosclerospora maydis*) in Pulut Corn plants, that the combination of bacteria and application time of bacteria *B. subtilis* and *P. fluorescens* had no effect on plant height, yield components (cob diameter, cob weight, and cob weight without cob), disease incidence and attack intensity.*

Keywords: *Downy mildew, biological agents, control*