

**RESPON TANAMAN KEDELAI (*Glycine max* L.) TERHADAP PEMBERIAN
PUPUK HAYATI RHIZOBIUM PADA LAHAN PESISIR PANTAI**

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ABSTRACT

The soybean harvest area in Indonesia still does not meet soybean needs from 2020 to 2021, which is 382,311 hectares, then decreases to 362,612 hectares. So that the application of Rhizobium biofertilizer needs to be done to increase soybean productivity. This study aims to determine the ability of Rhizobium bacteria in symbiosis on coastal sandlands. This study was carried out from January to April 2023 around the coast of Mojosari Village, Puger District, Jember Regency with sandy soil conditions, using a non-factorial Complete Randomized Design with treatment dose levels R0: 0 g/plant, R1: 5 g/plant, R2: 10 g/plant, R3: 15 g/plant, R4: 20 g/plant. The results of the study showed that the application of rhizobium biofertilizer had a significant effect on the number of root nodules with an average of 3.67, plant height of 45.35 cm, and the number of leaves of 35.05 strands. However, it showed no noticeable effect on the number of branches, wet weight of pods per sample, wet weight of pods per plot, dry weight of pods per sample, dry weight of pods per plot, and dry weight of roots. The best results were shown at a dose treatment of 20 g/plant.

Keywords: Soybean, Biofertilizer, Rhizobium.