

**RESPONSES THE GROWTH AND PRODUCTION OF ANJASMORO
SOYBEAN VARIETY BY USING RHIZOBIUM
IN DROUGHT STRESS CONDITION**

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ABSTRACT

Food commodity that have high protein content besides corn and rice is soybean, many industrial sectors use soybean as industrial raw materials and fodder. The superior variety of soybean that is demanding by farmers because of their high production, large seeds, and not easily broken pods are Anjasmoro soybean variety. Drought stress is one of biological stress which means any changes in environmental conditions that may reduce or harm the growth or plants development or their normal functions. Drought stress is one of biological stress which means any changes in environmental conditions that may reduce or harm the growth or plants development or their normal functions. This research was conducted in Antirogo Village, Jember Regency and the Plant Protection Laboratory. This study used RAK with a single factor consisting of 5 treatments (without rhizobium, 5 grams / l, 10 grams / l, 15 grams / l, and 20 grams / l). The results showed that the used of rhizobium showed a significant differences on plant height, root length, dryroot weight, drycrown weight, number of root nodules, root nodule weight, number of pods, number of bernas pods, pod weight, and dryseeds weight. It gave the highest average result at a concentration of 20 grams / l.

Keywords : Rhizobium spp bacteria, drought stress, yield