

**GROWTH AND YIELD RESPONSE OF EDAMAME SOYBEAN  
(*Glycine max* (L.) Merr.) ON THE USE OF ORGANIC MULCH AND  
PLANTING SPACE**

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**ABSTRACT**

*The quality and quantity of soybean production can be influenced by the presence of weeds due to competition for light, CO<sub>2</sub>, water and nutrients. This results in the need to control weeds in soybean plants using appropriate techniques. Technically, weeds can be controlled by spacing and organic mulch as a solution to the weed problem. The research was carried out from February 2024 to May 2024. This research was carried out at the Wedomartani experimental garden, Ngemplak, Sleman, Special Region of Yogyakarta. The aim of the research is to determine the best planting distance and type of organic mulch for the growth and yield of edamame soybeans. The research used a split plot design. The main plot is the type of mulch, namely straw mulch, rice husk mulch and no mulch. Then as a sub plot, the planting distance consists of 40 x 10 cm, 40 x 20 cm and 40 x 40 cm. Observation data were analyzed using analysis (ANOVA) at the 5% level. There was no interaction between organic mulch treatment and planting distance for all observation parameters. This type of organic mulch gave results that had no significant differences in all observation parameters. A planting distance of 40x10 cm gave good results regarding the parameters of number of pods, pod weight per plot and pod weight per hectare.*

*Keywords: Soybeans, Edamame, Organic Mulch, Plant Spacing*