

Respon Macam Bibit Dan Sumber Bahan Organik Terhadap Pertumbuhan Bibit Tebu (*Saccharum officinarum* L). *Response of various seeds and sources of organic matter to the growth of sugarcane seeds. Advisor: Ir. M. Bintoro, MP*

SITI NUR FADILLAH

Seed Production Techniques of Study Program
Department of Agriculture Production

ABSTRACT

*Sugarcane (*Saccharum officinarum* L.) is a plantation commodity which has high economic value. The increasing demand for sugarcane products as an industrial raw material must be accompanied by the productivity of the sugarcane plant. The quality of the seeds will determine the success of sugarcane cultivation. From these problems, it is necessary to have quality nursery technology and planting media that can support nurseries. This research was conducted to determine the interaction between kinds of seeds and sources of organic matter on the growth of sugarcane seeds. This research was conducted from February to April 2020 at the Jember State Polytechnic experimental site. This study used a factorial randomized complete block design (RCBD) with 4 replications. The first factor is the variety of sugarcane seeds (B), namely $B_1 =$ Bud chips and $B_2 =$ Bud set. The second factor is the source of organic matter (S), namely $S_1 =$ soil + sand + coffee husk compost, $S_2 =$ soil + sand + manure, and $S_3 =$ soil + sand + blotong. The data were analyzed using Analysis of Variance (ANOVA) at 5% level and continued with the LSD test (the smallest significant difference) and the DMRT (Duncan Multiple Range Test) follow-up test. The parameters used were germination (%), plant height (cm), number of leaves (strands), number of tillers (stems), shoot wet weight (grams), shoot dry weight (grams), root wet weight (grams), weight dry root (gram). The results showed that the treatment of seedlings had a significant effect on germination, and had a very significant effect on plant height, number of leaves, number of tillers, shoot wet weight, shoot dry weight, and root wet weight. Treatment The source of organic matter had a significant effect on germination and had a very significant effect on root wet weight. The interaction of various kinds of seeds and sources of organic matter had a very significant effect on the parameters of shoot wet weight and shoot dry weight. Where is the best treatment of bud set with soil media + sand + coffee husk compost (B_2S_2) with successive values of canopy wet weight of 104.58 grams, canopy dry weight of 60.12 grams.*

Key words : *Sugarcane, kinds of seeds, source of organic matter*