

***EFFECT OF PLANT MEDIA COMPOSITION AND BACTERIA  
Pseudomonas fluorescens ON GROWTH SUGARCANE  
BUDSET SEEDS (Saccharum officinarum L.)***

*Supervised by Setyo Andi Nugroho, S.Pd., M.Si.*

**Tariza Tiara Arthamurti**

*Study Program Plantation Cultivation Study  
Program Department Agricultural Production Department*

***ABSTRACT***

*National sugar production in 2017 ranged from 2.3 million tons, while the national sugar demand reached 5.2 million tons, where this figure is relatively low, which can be increased by providing planting materials in the form of quality seeds and seedlings to meet these needs. The aim of this study was to investigate how to composition of the planting medium and the application of the bacterium *Pseudomonas fluorescens* could influence the growth of sugarcane bud set seedlings. The study took place between October 2022 and January 2023 at the Jember State Polytechnic research area, situated on Jl. Mastrip, East Krajan, Sumpersari District, jember Regency, East Java. The experimental approach was a factorial randomized block design, involving 2 factors and 3 replications. First factors A1 (2:1:1) Top soil : sand: Cow manure, the second factor A2 comprise a belnd of top soil, sand, and cow manure in the proportion of 1 part topsoil, 2 part sand, and 1 part cow manure. Lastly, the third factor A3 consist of a combination of topsoil, 1 part sand, and 2 parts cow manure. The findings indicated that both the planting medium's composition and the utilization of *Pseudomonas fluorescens* bacteria did not able impact on the height and stem diameter of the plants. Howeve, there were significant differences observed in the number of leaves and tillers when these factors were considered.*

***Keywords:*** *Sugarcane, Pseudomonas fluorescens, Composition of Growing Media*