

***EFFECT OF SUGARCANE WASTE ORGANIC FERTILIZER AND NPK APPLICATION
ON HYBRID MAIZE (ZEA MAYS)
GROWTH AND PRODUCTION***

By *Supervisor* Ilham Muhklisin, S. S.T., M.sc

Ahmad Basuki Rahmat
Food Crop Production Technology Study Program
Department of Agricultural Production

ABSTRAK

The depletion of soil due to the overuse of chemical fertilizers is one of the factors contributing to the decrease in maize yield. Organic fertilizer made from sugarcane waste can be an alternative to tackle that problem. This research aims to examine the application of sugarcane waste fertilizer and NPK to the growth and production of corn. This research was carried out on Antirogo land, Summersari District, Jember county. The research was designed using a Randomized Block Design (RBD) with two factors. The first factor was the dose of sugar cane waste Fertilizer with three levels as following control (without applying organic fertilizer), 10 tons/ha, and 20 tons/ha. The second factor was the NPK dose containing three levels namely 150 kg/ha, 200 kg/ha, and 250 kg/ha. Statistically, there was no interaction between Sugarcane waste organic fertilizer and NPK in all parameters. The result showed that the sugarcane organic fertilizer 200 kg/ha considerably outperformed the control in terms of plant height. However, there was no statistical difference between sugarcane waste organic fertilizer 20tons/ha and the control on the leaves number. Moreover, NPK 250 kg/ha and NPK 200 kg/ha gained the best result on stem diameter.

Keywords: Bio-activator, Low input, Molase, Sustainable agriculture