

## ABSTRACT

The research entitled The Effectiveness of Organic NPK as an Inorganic NPK Substitute on Sweet Corn Cultivation (*Zea mays saccharata*) was done at Green House Faculty of Agriculture University of Muhammadiyah Yogyakarta. In April to July 2017. The purpose of this study is to obtain the dosage of blood flour, cow bone ash and coconut ash as the right organic NPK for the growth and yield of sweet corn crops and to know whether the blood flour, cow bone ash and coconut husk ash As organic NPKs can replace inorganic NPKs on the growth and yield of sweet corn crops.

This research used experimental method compiled in Completely Randomized Design (RAL) with single factor treatment design consisted of 9 treatments, as follows: treatment P1 = Flour of 1.3 gram + Cow bone 0.25 gram + Coconut husk ash 0.35 gram. Treatment P2 = Flour 1.3 gram + Cow bone 0.25 gram + Coconut husk ash 10 gram. Treatment P3 = Flour of 1.3 gram + Cow bone grass 4.42 gram + Coconut husk ash 0.35 gram. Treatment P4 = Flour 1.3 gram + Cow bone grass 4.42 grams + Coconut husk ash 10 gram. Treatment P5 = Flour 10 gram + Cow bone 0.25 gram / tan + Coconut husk ash 0.35 gram. Treatment P6 = Flour 10 gram + Cow bone 0.25 gram + Coconut husk ash 10 gram. Treatment P7 = Flour 10 gram + Cow bone grass 4.42 grams + Abu coir 0.35 gram. Treatment P8 = Flour 10 gram + Cow bone grass 4.42 gram + Coconut husk ash 10 gram Treatment P9 = Urea 5.8 gram + SP36 1.9 gram + KCl 1.9 gram (comparison treatment). Each treatment was replicated 3 times so that there were 27 experimental units consisting of 3 sample plants and 3 casual plants so that there were 135 plants. Observation parameters ie taaman height, leaf number, root length, leaf area, fresh weight of crown, fresh root weight, dry weight Canopy, root dry weight, ear length, cob diameter, cob weight and cob weight without claw.

The results showed that all treatments had positive effect on all observation parameters. Treatment that tends to be better is P5 = Flour 10 gram + Cow bone 0.25 gram + Coconut husk ash 0.35 gram.

Key word: Sweet cron, NPK organic, NPK anorganic.