

ABSTRACT

*A research entitling "Application of compost rind jatropha as a source of potassium in the sweet corn (*Zea mays saccharata* Sturt) cultivation " was conducted in the Research Laboratory, Soil Laboratory and Field trials Faculty of Agriculture, Universitas Muhammadiyah Yogyakarta from October 2015 to March 2016. The Research aims to study the influence of compost rind *Jatropha* in the sweet corn (*Zea mays saccharata* Sturt) cultivation and get a proper dose of compost rind *jatropha* in increasing the growth and yield of sweet corn (*Zea mays saccharata* Sturt).*

*This research conducted using an experimental method with single factor that is arranged in a completely randomized design. The treatments dose tested ie compost rind *jatropha* (KJP), which consists of four levels, namely, 250 kg KCl / hectare + 0 KJP kg / hectare, 125 kg KCl / hectare + KJP 273.89 kg / hectare, 62.5 kg KCl / hectare + KJP 410.84 kg / hectare, 0 kg KCl / hectare + KJP 547.79 kg / hectare. Each treatment repeated 3 times so that there are 12 experimental units, each unit consisting of three plants trial so that there are 36 plants. All treatment was given at a dose of manure 20 ton / hectare, Urea 400 kg / hectare given 2 times, SP-36 300 kg / hectare.*

*The results of this research indicate that the mix dose treatments compost rind *jatropha* and KCl does not give a significantly different effect on all parameters of growth and yield of sweet corn. Therefore all the doses applied compost can substitute the use of inorganic potassium fertilizer by farmers, but the dose of 125 kg KCl/hectare + KJP 273,89 kg/hectare showed weight cob cornhusk that fits with the description of yield potential *Gendis* varieties.*

*Keywords : Compost rind *jatropha*, Potassium, Sweet Corn (*Zea mays saccharata* Sturt).*