Department of Agrotechnology
Faculty of Agriculture
Universitas Muhammadiyah Yogyakarta

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PROGRAM & ABSTRACT BOOK

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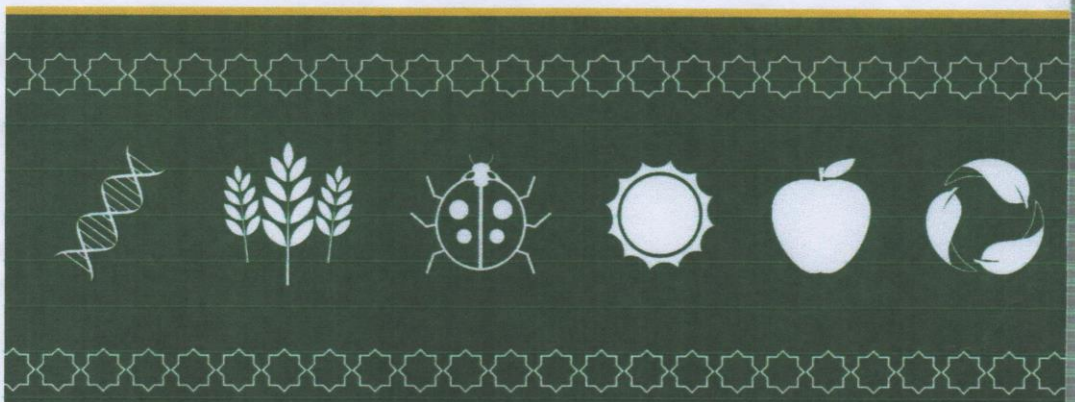

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SFC-P-005 Application of rind jatropha compost as a K source in the sweet corn (*Zea mays saccharata* Sturt) cultivation

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ABSTRACT

Potassium is one of important soil nutrients, based on the crop needs nutrients, potassium is the third element that important after nitrogen and phosphorus. The content of potassium in the Rind Jatropha compost quite high at 11.36%. The high content of potassium in the rind Jatropha has potential to increase the productivity and fulfill the needs soil nutrients in the cultivation process. 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 in Regosol soil. This research conducted using an experimental method with a single factor that is arranged in a completely randomized design. The treatments dose tested i.e. compost rind jatropha (KJP), which consists of four levels, 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. The results of this research indicate that the treatments mix dose 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 variety.

Keywords: Rind Jatropha Compost, Potassium, Sweet Corn (*Zea mays saccharata* Sturt)

SFC-P-006 Cultural Practices Technology of Special Rice Variety On The Lowland Fields

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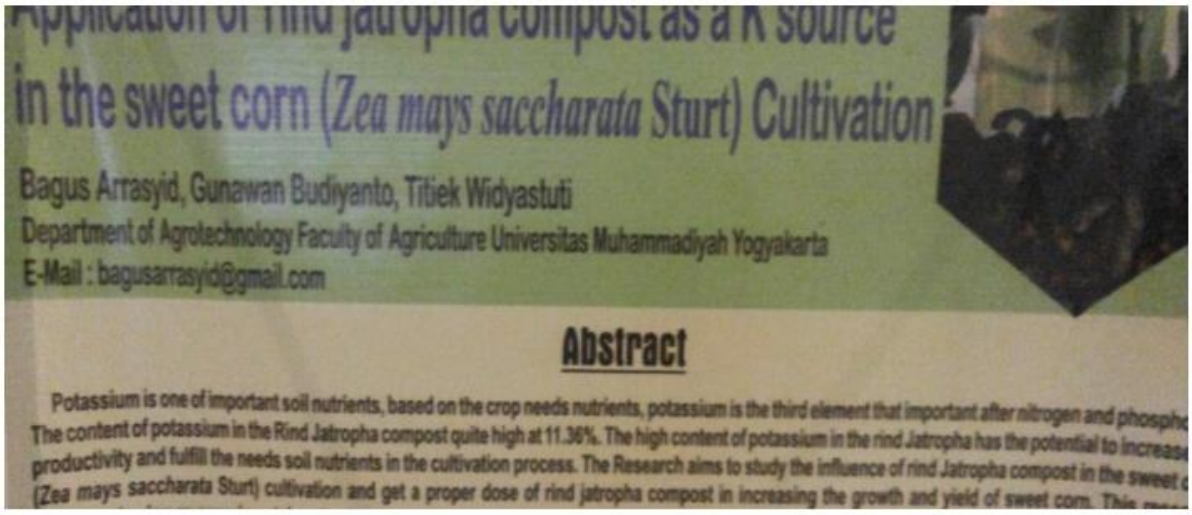
ABSTRACT

Rice plants are strategically commodities as food supplied in Indonesia. The operated, provided, procurement and distribution under be incredibly important to food security, stability of national economy and to increased income of farmers. Rice In addition created to required rice as food / special functional. Needed production of rice that has added value (certain prices, nutrition scent, etc) or contained one or more components with particular physiological functions and useful for health. The development problems of rice with particular characteristics / special are reluctanced at farmers to planted or produced different between regions because it is dependent of climate, agroekosistem and the market. The experiment was aims to studied the cultivated technology of special rice variety at farmer's lowland field, at the Cianjur district, West Java, in April – September 2016. The experiment was arranged as a split-split plot design with 3 replications. The main plot are fertilizer application, P1- the present local recommendation (Urea = 100 kg/ha, Phonska= 300 kg/ha; Organic fertilizer (petrokimia) = 500 kg/ha), applied 1x at 14 days after transplanting. P2 – proposed recommended based on PHSL, Urea =250 kg/ha, Phonska=130kg/ ha, applied 3 x at 7 dat, 21 dat and 42 dat (just before flower initiation stage). Sub plot: plant spacing T1 – a *legowo* system 4: 1 (27cm -- 54 cm) x 13,5 cm and T2 – *Legowo* 2:1 (25 cm–50 cm x 12.5 cm); Sub-sub plot: special rice varieties V1- Cisokan,, V2- Inpari 21, V3- IR-42, V4- Lusi variety and V5 - Japonica rice (Tayken rice). The smallest plot (sub-sub plot) size was 4 m x 4 m, with the total number of plots was 60. Performance of the special rice varieties could be increased through optimalization of plant spacing and fertilizer application. The highest grain yields in the season was 9.80 t dry (14%mc) grains/hareached by Inpara 4 planted combination with *jajar legowo* 4:1 and the present local recommendation fertilizer, followed by Lusi variety (9.33 t dry (14%mc) grains/ha) with combination the *jajar legowo* 4:1 and recommended based on PHSL, than Cisokan variety produced 9.24 t dry (14%mc) grains/ha with combination *legowo* system 4: 1 and present local recommendation fertilizer. Application of fertilizer and plant spacing are significantly which were the highest yield. There was effected on yield produced . 8,50 t dry (14%mc) grains/ha, at *jajar legowo* 4:1 planted highest 0,5 t dry (14%mc) grains/ha than *jajar legowo* 2:1 produced 8,03 t dry (14%mc) grains/ha.

Keywords: Special rice variety, fertilizer, plant spacing and *jajar legowo*



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