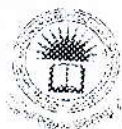


EFFECT OF FOLIAR APPLICATION OF BANANA (*Musa acuminata* L.) PSEUDOSTEM BASED ENRICHED SAP ON GROWTH AND YIELD OF COWPEA (*Vigna unguiculata* L. Walp.).

W. SANIRA LAKMADU VIDARSHANA FERNANDO



FAG623



Library,
Eastern University, Sri Lanka

FACULTY OF AGRICULTURE

EASTERN UNIVERSITY

SRI LANKA

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ABSTRACT

The field experiment was conducted to study the effect of foliar application of banana (*Musa acuminata* L.) pseudostem based enriched sap on growth and yield of cowpea (*Vigna unguiculata* L. Walp.) during the January to April 2019 grown at the Crop Farm, Eastern University, Sri Lanka. The experiment was laid out in Randomized Complete Block Design with five treatments having four replications. Treatments were; Urea, TSP, MOP as basal and topdressing as recommended rate (T1), Urea, TSP, ½ MOP as basal with recommended topdressing and 1% Pseudostem sap solution (T2), 3% Pseudostem sap solution (T3), 5% Pseudostem sap solution (T4) and 7% Pseudostem sap solution (T5) at 3rd, 5th, 7th and 9th week after planting.

The results revealed that application of a banana pseudostem had significant differences ($P < 0.05$) on plant height, leaf area, root length, chlorophyll content, days to 50% flowering, number of flowers per plant, fresh weights of plant, leaves, root and stem, dry weights of stem from 4th to 10th Week after planting (WAP). Also significant difference ($P < 0.05$) were noted on number of pods per plant and sun dried weights of pods, number of seeds per pod, sun dried seed weight of 100 seeds, total pod and seed yields at each picking. The highest cumulative seed yield of 8.01 ton/ha was noted in T2 and lowest value of 2.18ton/ha in T1.

Application of banana pseudostem sap in to the soil leads to improve growth and yield of cowpea in sandy regosol soil compared to recommended inorganic fertilizer and present study suggested that, among the tested treatments recommended dosage of Urea, TSP and half recommended dosage with MOP with 1% banana pseudostem sap at 3rd, 5th, 7th and 9th week after planting (T2) would be the most suitable concentration to get high growth and yield of cowpea in sandy regosol.

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