

การใช้ระบบชลประทานแบบหยดและปุ๋ยทางดินต่อการเติบโตและผลผลิต  
ของมันสำปะหลังในจังหวัดนครราชสีมา

The Utilization of drip irrigation systems and Soil Application Fertilizers to growth  
and yield of cassava in Nakhon Rachasima province

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ABSTRACT

A field experiment in sandy loam soil using cassava variety Huabong 80 was laid out as split plot design with 3 replications for each treatment in the main plot namely 1) Rain-fed (RF) 2) Surface drip irrigation (SD) 3) Sub – surface drip at 10 cm. (SSD<sub>10</sub>) 4) Sub – surface drip at 40 cm. (SSD<sub>40</sub>). The 4 sub – plots in each main plot comprised 1) unfertilized (F<sub>0</sub>), 2) (SAF<sub>1</sub>), 3) (SAF<sub>2</sub>) and 4) (SAF<sub>3</sub>): the application of mixed fertilizer grade 15 – 7 – 18 at 25, 50 and 100 kilogram/rai respectively. Plant parameters measured were consisted of growth, fresh tuber yield, yield components and N,P,K uptake by plant. The results obtained revealed tremendous responses of cassava with respect to fresh top weight, fresh tuber yield, average weight of fresh tuber and NPK uptake to either irrigation systems or fertilizer rates. Especially, the treatments that by average, gave the highest fresh tuber yield were SSD<sub>40</sub>, SAF<sub>3</sub> and the combinations of SSD<sub>10</sub> and SAF<sub>3</sub> that produced 9.76, 10.11 and 10.36 tons per rai of fresh tuber respectively.