IRRIGATION AND FERTILIZER ON NUTRITION AND YIELD OF COCONUT PALMS

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A field experiment was conducted to find out the effects of different irrigation and fertilizer applications on nutritional and yielding aspects of coconut palm. The study was a part of an ongoing research conducted at *Rathmalagara* estate, *Madampe* during December 2010 to May 2011. Six treatments, T1; no fertilizer, no irrigation, T2; 3 kg adult palm mixture (APM) + 1 kg Dolomite, no irrigation, T3; no fertilizer, drip irrigation (40 *l*/day), T4; 3 kg APM + 1 kg Dolomite, drip irrigation (40 *l*/day), T5; 67 g Urea + 133 g Murate of Potash (MOP) by drip fertigation (40 *l*/day) + 75 g *Eppawela* Rock Phosphate (ERP) + 83 g Dolomite/palm/month, and T6; 67 g Urea + 133 g MOP + 75 g ERP + 83 g Dolomite/palm/month, hose irrigation were tested, following Randomize Complete Block Design (RCBD) with three replicates. Plant samples were collected from 14th leaf of each palm and, were analyzed for Nitrogen, Phosphorus, Potassium, and Magnesium. Number of total female flowers (TFF), number of set nuts, and set nuts percentage of each bunch opened during the period were determined.

The results revealed that, there were no significant differences of nutrients status of the 14th leaf, number of TFF, number of set nuts, and set nuts percentage among the different treatments. Heavy rainfall received during early stages of the experiment (December – 541 mm, January – 251 mm, February - 83.3 mm, and March - 69.9 mm) may have minimize the effect of treatments, ultimately resulting no any significant differences among the treatments. Experiment should be continued, to find out the effect of treatments.

Key words: Coconut, Fertilizer, Intermediate zone, Irrigation, Set nut