

## **PARTIALLY BURNT PADDY HUSK AS POTASSIUM SUPPLEMENT TO SOIL FOR TURMERIC (*Curcuma longa* L.) CULTIVATION IN SRI LANKA**

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There is a high demand for organic cultivated turmeric. But the production in Sri Lanka is not sufficient to full fill the requirements of local and export market. It is vital to investigate the effect of supplementary sources of potassium to diminish the excessive usage of inorganic fertilizer in cultivation of turmeric. Therefore, it will help to promote organic turmeric cultivation. Partially burnt paddy husk act as additional source of potassium for turmeric cultivation and it increases the effect of Muriate of potash on turmeric. Partially burnt paddy husk retain moisture and it create better condition for dissolution and retention of inorganic fertilizer in the soil. Therefore this study was directed to select the suitable combination of partially burnt paddy husk as potassium supplement for Turmeric cultivation. The study was carried out at the Intercropping and Betel research Station, Dampelessa, Narammala with seven treatment ranging Control (no fertilizer), T1 (100% muriate of Potash), T2 (100% muriate of potash) T3 (75% muriate of Potash and 25% of partially burnt paddy husk, T4 (50% from muriate of potash and 50% partially burnt paddy husk), T5 (25% muriate of potash and 75% partially burnt paddy husk), T6 (100% partially burnt paddy husk) and T7 (100% muriate of potash and 50% partially burnt paddy husk). Research finding shown that the T7 treatment has significantly highest dry weight of turmeric rhizomes because of significantly highest potassium percentage in soil due to the contribution of partially burnt paddy husk application. Nutrient availability was assured by significantly highest electrical conductivity of T7 treatment. Application of partially burnt paddy husk will reduce the additional potassium fertilizers applied by farmers and therefore the cost of cultivation will be reduced. Therefore farmers cultivating Turmeric for profit are informed to utilize partially burnt paddy husk as a supplementary source with recommended muriate of potash dosage.

**Keywords:** *Turmeric, Partially burnt paddy husk, Potassium*