EFFECT OF MULCHING ON NUTRIENT STATUS OF GINGER (*Zingiber officinale* ROSCOE) GROWING SOILS IN LOW COUNTRY INTERMEDIATE ZONE, SRI LANKA

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(*Zingiber officinale* Rosccoe) is an economically important crop in Sri Lanka. Soil nutrient status is a key factor that influences Ginger yield. Soil mulching is an effective practice that can be used to enhance soil nutrient status. However, effect of mulching on soil nutrient status has not yet been tested for ginger cultivation. Therefore, this experiment was conducted at the Intercropping and Betel Research Station, Narammala to investigate the effect of different mulching materials on soil nutrient status of Red Yellow Podzolic soil. Five mulching materials: Straw (T2), Gliricidia leaves (T3), Polythene mulch (T4), Coconut leaves (T5) and Coir dust (T6) were tested with a control (T1, without mulching) using Randomized Complete Block Design with four replicates. Soil pH, EC, soil available nitrogen, available phosphorus and available Potassium were measured at monthly intervals and soil moisture was measured once per ten days before irrigation during the eight months from planting to harvesting. The highest value of soil EC (3.90 mS/cm) was observed in T3 treatment while the lowest EC (1.36 mS/cm) was reported in T4. Percentage of soil moisture was higher in T4 treatment compared to all other treatments. Significantly higher ($P<0.05$) percentage of soil available nitrogen was reported in T3 treatment. Soil phosphorous and potassium levels were also high in T3 treatment hence, the highest ginger yield was reported. The study reveals that the mulching of soil with gliricidia leaves enhances soil nutrient status and increases ginger yield compared to other tested mulching materials.

Keywords: Ginger, Soil mulching, Soil nutrients, Yield

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