## THE EFFECTS OF DIFFERENT MULCHING MATERIALS ON GROWTH AND YIELD OF LOCAL GINGER (Zingiber officinale Roscoe) CULTIVATED IN THE LOW COUNTRY INTERMEDIATE ZONE OF SRI LANKA

## Nuwan Kumara, Shanthi De Silva\*

Department of Agricultural and Plantation Engineering, The Open University of Sri Lanka

Mulching is one of the important and effective practices in improving growth and yield of ginger (Zingiber officinale Roscoe). A field experiment was conducted at the Intercropping and Betel Research Station, Narammala with the objective of investigating the effect of different mulching materials used on growth and yield of ginger. Randomized complete block design (RCBD) with three replicates was employed for the study. Six treatments namely control –without mulch (T1), straw (T2), gliricidia leaves (T3), polythene mulch (T4), coconut leaves (T5), and coir dust (T6) were used with local type of ginger for the study. Equal amount (35 L) of water (20% of field capacity) was applied to each plot (130 cm in length and 105 cm in width) and other inter cultural practices were done according to the recommendations of Department of Export Agriculture (DEA). Data related to growth and yield was collected at one month interval during six months of study period. Data were analysed using SAS statistical package. All the ginger plants with mulches showed better performances than the plants without mulch. Gliricidia mulch positively contributed to increasing yield of ginger (44% per hectare more than average yield). The results further indicates that mulching has a remarkable effect on growth and yield of ginger and this study showed that Gliricidia as a mulch is superior for Ginger and therefore farmers can be advised to use this freely available mulch in their farm lands to improve the yield of Ginger.

Keywords- Ginger, Gliricidia mulch, Growth, Yield

Corresponding author: email-csdes@ou.ac.lk