

The use of coconut leaf mulch in the grain Cowpea production

Cowpea is an important grain legume crop grown traditionally by the dry zone farmers. It is also suitable for intercropping coconut in the intermediate zone during the dry spell. Organic mulches were used to conserve soil moisture for improving yields. Paddy straw and coir dust are the common organic mulches in use. Dry coconut leaves could also be used to conserve soil moisture particularly in the coconut estates.

An experiment was conducted was conducted at RARC Makandura with different types of grain cowpea varieties in order to study the effect of coconut leaf mulch on the growth and yield. The normal recommended spacing of 30 cm x 15 cm was adjusted and the most suitable spacing of 60 cm x 10 cm was selected. At the spacing of 60 cm x 10 cm the entire coconut leaves could be accommodated as surface mulch in the inter row spaces. The mulch could be applied and removed as and when necessary and this practice is relatively easy.

The crop growth and the canopy height were greater when the coconut leaf mulch was used and about 90% yield increase was observed in the cowpea intercrop. As minimum tillage was practiced and no agro-chemicals were used for pest and weed control, the yield of untreated plots were lower. However the pod sucking bugs caused more damage to the mulched plots. Hence the actual direct effect of mulch by conserving soil moisture and improving the soil micro environment and the indirect effect of mulch

through better weed control were both masked by the loss of yield due to damage by pod sucking bugs.