B 042

Evaluation of productivity of *Ipomoea batatas* L (Sweet Potato) varieties in sandy regosol during dry season

Sweet potato (Ipomoea batatas L) is a high starchy tuber crop it is used as a staple food in many countries. In Batticaloa district, farmers usually cultivate local varieties, which are inherently low in yield and highly susceptible to tuber weevil (*Cylas formicarious* Fabricus). To introduce new potential varieties in this region, six sweet potato varieties were evaluated in sandy soil during dry season. The varieties were tested in a Randomized Complete Block Design with four replicates. The data related to tuber yield, weevil damage and growth attributes such as leaf production and Leaf Area Index (LAI) were collected.

Short duration variety Gannoruwa white (4 – 4.5 month) produced highest tuber of 15250.7 kg/ha, with a high Harvest Index (H.I.) 41.66%, and low percentage of non-tuber formed plants (5%). Variety Wariapola white of same duration produced 9427.7 kg/ha with a H.I. of 29.46. These two varieties were found to be highly susceptible to weevil and hence marketable yield was reduced to 9053.35 kg/ha and 5434 .78 kg/ha respectively.

Variety Ranabima produced a tuber yield of 10814.11 kg/ha with a H.I. of 26.94% during a period of 5-5.5 months, duration. Due to weevil damage the marketable yield was reduced to 8706.75 kg/ha which is not significantly different from Ganoruwa White. The Variety Wariapola red did not from tubers, but produced leaves continuously. Variety Gannoruwa White and Ranabima were identified as suitable varieties for this region.