

GENOTYPIC VARIATION IN LOCAL GERMPLASM COLLECTION OF COCOYAM  
(XANTHOSOMA AND COLOCASIA) IN SRI LANKA

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With the objective of preventing further erosion of genetic resources in local Xanthosoma and Colocasia (collectively known as cocoyam) cultivars, steps have been taken to collect, conserve, characterize and evaluate local cocoyam genotypes. Deuplicates were reduced by careful studies and the cocoyam germplasm was trimmed down to 16 accessions (Xanthosoma 7 and Colocasia 9) from the original total of 49 collected from the wetter part of the island where these crops are traditionally grown. All the distinct accessions were subjected to characterization and evaluation in the field at the Central Agricultural Research Institute, Gannoruwa from 1984 - 1987 for their variability in common phenotypic and horticultural characters.

A wide array of variation was observed in general plant characters (germplasm type, flower formation, growing condition, plant size and maturity), in leaf characters (leaf arrangement, colour, area, venation, sheath petiole length and colour) and in corm and cormel characters (corm, cormel and runner manifestation, size, shape, colour and mode of arrangement of cormels). Special emphasis was given to the yield and quality characters such as yield/ha, dry matter and protein contents, acidity, palatability of cormels, which indicated a differential character by different accessions. Combination of most of these characters therefore are useful in genotypic identification of cocoyam.

One of the Colocasia genotypes has been identified under the name of Weliala possessing highly desirable characters of shortage ( $3\frac{1}{2}$  months) high yield (20-22 t/ha) and dwarf plant stature.

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