B-29 : CHARACTERIZATION STUDIES IN MULBERRY (*Morus*)

T Rohana, V A Sumanasinghe, H N P Wijayagunasekera
Faculty of Agriculture, University of Peradeniya.

Differences in several morphological characteristics of mulberry (*Morus sp.*) were investigated with the objective of proposing a classification scheme for the plant materials grown at the Silk-worm Breeding Station at Nilambe, which may be helpful in future mulberry breeding and improvement programmes.

Of the 23 different cultivars available, 5 were introduction from Japan, 1 from South Korea, and 4 from India. The rest, 13 cultivars were collected from Pallekele, Galaha and Mahalpe mulberry estates.

Differences were observed for both quantitative and qualitative characters. Quantitative characters such as length of lamina, width of lamina, length of stipules, length of apex, length of petiole, internodal distance, and qualitative characters such as lobes per lamina, shape of apex, type of apex, type of style, shape of stigma, shape of stipules were used in this study.

Cluster analysis was employed to analyse quantitative data and the clustergram was compared with the qualitative characters. Based on both qualitative and quantitative variations, existing cultivars could be separated into 5 groups.

Of the 5 groups, 2 were already known as *M.indica, M. alba* and most of local cultivars with sessile ovaries can be classified into these groups. The third group possesses a long styled cultivar of *M. acidosa.* Intermediate types with short styles between *M. alba* or *M. indica* and *M. acidosa* are grouped in the fourth. The last group includes 2 of the Japanese cultivars Kosen and Dasamidori which are qualitatively the most diversified.

M.alba and *M. indica* are very close to each other and are considered sub species of a single species.