

# ANALYSIS OF THE FREE AMINO ACIDS AND SUGARS OF THE SAP FROM THE INFLORESCENCE OF *BORASSUS FLABELLIFER* (PALMYRAH PALM)

R. Savarimuthu, S. Ratnam and K. Theivendirarajah

(*Department of Botany, University of Jaffna, Thirunelvely, Jaffna*).

Free amino acids and sugars present in the unfermented sap of the inflorescences of both male and female palms at various stages of maturity of the inflorescences were analysed by two dimensional paper chromatography. The following amino acids were detected in the unfermented sap.

Aspartic acid, glutamic acid, serine, glycine threonine, avanine, valine, leucine, iso-leucine, lysine, arginine, proline, tyrosine, phenyl alanine, methionine, cystine, - amino butric acid and the amides asparagine, and glutamine.

The same aminoacids were also present in the fermented sap but their concentrations were lower, particularly that of phenyl alanine, leucine, iso-leucine, arginine, methionine, and proline. The same types of aminoacids were observed at different stages of maturity.

Of the sugars, the chromatographic analysis showed the presence of sucrose, glucose, fructose and raffinose in the unfermented sap. The same sugars were also found in the fermented sap. But the relative amount of these sugars in the fermented sap varied from that of the unfermented sap. No qualitative differences in the aminoacids or sugars between male and female palms were detected in this study.