SOME ASPECTS OF PRODUCTIVITY IN RELATION TO TURNOVER OF PHOTOSYNTHATES IN THE PALMYRAH PALM (*BORASSUS FLABELLIFER*)

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Nett/dry matter production was estimated in the utility components of the palmyrah palm, namely the leaf, the inflorescence derivatives represented by the tapped sap, and the storage cotyledons of germinated seeds ('roots').

The dry matter partitioned into leaf computed for a 12' × 12' palm stand, is found to be comparable to leaf yield from commercially exploited leaf crops such as tea.

The nett yield of edible carbohydrate, estimated on the basis of dry matter in the storage cotyledon from untapped female palm exceeds that of sweet toddy tapped from female palm, by a factor of 3 to 5.

The fodder value of leaf lamina was examined by the analysis of soluble amino acids and sugars. following components were found:

Amino acids – lysine, threonine, methionine, leucine/isolucine, valine, representing the essential group, and in addition, asparagine aspartic acid, glutamic acid serine/glycine, allanine, proline ϑ- aminobutyric acid.

The relative content of these components in the male and female palms during maturation of the leaf varied slightly.

Sugars – sucrose, raffinose, glucose and fructose were the major soluble components.

Changes in structural and chemical composition of leaf lamina during maturation of leaf was examined. The difference between young and mature leaf was found to be mainly due to changes in cell contents, especially pigments and sugars.

Attempts to change the texture of the mature lamina to make it suitable for handicraft by chemical treatment is reported.