

MIXED CROPPING SYSTEMS

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Nillambe and Delpitiya

Kandyan forest gardens are typical examples of perennial mixed cropping systems in Sri Lanka. However due to the nonsystematic cropping of these units the Delpitiya Mixed Cropping Model (DELMIX) was developed and planted in 1978 on eroded tea land. Yield data of DELMIX indicate that yields of all the crops increased with the time. Cost versus income of DELMIX confirmed that it is profitable. Therefore DELMIX has proved to be economically viable. Evaluation of submodels selected from DELMIX indicate that plant height and canopy width of crops were similar in all submodels but varied in crop yields. Some of the farmers adopted part of the model very satisfactorily, which shows the farmers have an interest on the submodels of DELMIX.

A modified DELMIX pepper and coffee (catimor) model at different spacings with *Acacia mangium* as a wind belt was planted in 1986 at Nillambe. Yield data of these models indicate that the maximum yield per plant and maximum yield per unit area (kg/ha) of both coffee and pepper was obtained in the model of coffee in 1.5m x 3m and pepper in 3 x 3m.

In the DELMIX no particular soil conservation measures were adopted. Moreover, the slope of land used for DELMIX was not excessive. Currently available lands for mixed cropping has a steeper slope than that at the DELMIX site. Therefore studies on mixed cropping with the less costly conservation method of Sloping Agricultural Land Technology (SALT) is in progress at Delpitiya with good results.