## B-22: Effect of different rates of paddy husk application as a mulch on rainfed chilli productivity

W D Lesly, S N Jayawardena
*(Field Crop Research and Development Institute, Maha Illuppallama)*

One of the major reasons of low yields of rainfed chilli in the dry zone of Sri Lanka is moisture stress. It is therefore necessary to find out soil moisture conservation methods for longer dry periods to support the crop.

An experiment was conducted to find suitable application rates of paddy husk as a mulch for chilli (cv. MI-2). Treatments included 0,4,6,8,10,12,14 mt/ha of paddy husk Mulch was applied uniformly over the plots at 1 month after planting. All the other crop management practices were performed according to the present D.O.A. recommendations. Data on survival plants, plant height and canopy width, were recorded at 1 month intervals. Soil moisture was determined gravimetrically at regular intervals. At each weeding, weed dry weight was taken from an area of $0.125m^2$ using a 25cm x 25cm quadrat At harvest 100 pod weight and dry chilli yield were recorded.

All mulched plots maintained higher soil moisture status, plant height and canopy width throughout the growing period. Generally mulching increases the dry chilli yield. Among the different rates tested an increasing linear relationship in yield was observed upto 8 mt/ha.

It can be concluded that rice husk could be used as an effective mulch to increase productivity of chilli under rainfed upland conditions. Application of 8 mt/ha of paddy husk is the optimum rate.