

**EFFECTS OF DIFFERENT WATER MANAGEMENT PRACTICES AND WATER USE
EFFICIENCY OF SOME CASH CROPS GROWN ON THE LATOSOLS OF
THE NORTH WESTERN DRY ZONE OF SRI LANKA**

D. S. P. Kuruppuarachchi
(Agricultural Research Station, Vanathavillu)

Experiments were carried out in *Yala* 1980 and *Maha* 1980-81 in the north western dry zone of Sri Lanka to study the effects of three water management practices on crop yield and water use efficiency (yield per unit of water applied) of onion, chillies and bananas; drip irrigation was compared with traditional hand watered basin irrigation and rainfed farming.

It was found that drip irrigation at 10% depletion of the available water increased yields significantly over hand watered basin irrigation at 40% depletion of the available water and rainfed conditions for all three crops studied. Also drip irrigation resulted in water use efficiencies 1.5 to 2 times higher than basin irrigation and rainfed farming in all three crops.

The drip irrigation system brings about considerable saving of water which is particularly important where water availability is limited and cost of provision of water is high, as it is under tube wells drawing from the aquifers of the north western dry zone.

This study was jointly sponsored by the Department of Agriculture, Sri Lanka and the Ministry of Overseas Development, U.K.