B-06: Effect of mulch application on the yield of chilli *(Capsicum annuum)* grown under rainfed conditions

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Chilli is the most important cash group grown during the Maha season in the rainfed upland farming systems of the Dry Zone. Although the rainfed chilli accounts for nearly 50% to the total chilli extent of the country, it contributes only about 25% to the total production, mainly due to the soil moisture stress associated with limited uneven rainfall and short rainy season.

The possibility of increasing per hactare yield of rainfed chilli by application of mulch and using suitable varieties was studied at the Regional Agricultural Research Centre, Maha Illuppallama (Maha 92/93 and 93 Yala season). Four chilli varieties, MI-2 (check), TS-2, KA-2 and BL-39 were tested with and without Guinea grass *(Panicum maximum)* mulch. The mulch was applied soon after the transplanting of chilli at the rate of 8 Mt/ha (dry basis).

Results revealed that there were significant effects of mulch application and varieties on chilli yield during Yala season, but there were no significant effects during Maha season. All varieties have given high yields under mulched conditions and the yield of mulch treatments were about 3 times higher than that of ummulched treatments in Yala season. Among varieties, TS-2 and BL-39 gave lower yield while KA-2 out yielded the check variety MI-2. The results suggest that there is a potential to increase the rainfed chilli yield in the dry zone by application of mulch and the use uf proper varieties.