Selection of suitable hybrid varieties of chillies (*Capsicum annuum* L.) for scaling up of productivity of spices in dry eco-system

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Accepted : September, 2009

ABSTRACT

An innovative experiment was laid out in hill and valley watershed of Jhansi district of Bundelkhand, U.P. during 2000-01 to 2003-04. The main objective was to innovate the chillies cultivation in the non traditional area for production of more condiment. The experimental site was sandy loam locally known as Rakar soil, having pH 8.0, organic carbon 0.21%, total nitrogen 0.02%, available phosphorus 9.5 kg/ha and available potash 255 kg/ha, therefore, the fertility status was low. The five hybrid varieties *i.e.* Indira, Priyanka, Soldier, Ujala and Priti were tested under 0, 50, 100 and 150 q FYM/ha. Each level of FYM integrated with 90 kg N + 60 kg P₂O₅ + 60 kg K₂O/ha. All tested cultivars of chillies gave higher green fruits at RDF integrated with 150 q FYM/ha. The average yield of green fruits from these hybrid cultivars was recorded to 142.00 q/ha at RDF+150 q FYM/ha. The lowest yield of 128.60 q/ha was harvested at RDF + 0 q FYM/ha. The integrated dose of RDF + 100 q FYM/ha gave green fruits of chillies by 136.80 q/ha while application of RDF + 50 q FYM/ha yielded 132.60 q/ha. The order of varietal performance was Priti (139 q/ha) > Indira (137 q/ha) > Ujala (134 q/ha) > Priyanka (133 q/ha) > Soldier (132 q/ha).