



Residual effect of nitrogen levels and its split application on fodder pearl millet [*Pennisetum glaucum* (L.) R.Br. Emend Stuntz] in arid western Rajasthan

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Abstract : A field experiment was conducted during winter and summer season of 2002-03 and 2003-04 to find out the residual effect of nitrogen levels and its split application on fodder pearl millet [*Pennisetum glaucum* (L.) R.Br. Emend Stuntz] in arid western Rajasthan. Application of nitrogen in preceding mustard crop at 100 kg ha⁻¹ increased the fresh weight, dry weight, NPK content and their respective uptake fodder pearl millet in Ist and IInd cutting as well as total of both cutting. The increased of these parameters marginally varied from 163.89 to 177.73 q ha⁻¹ for fresh weight, 24.59 to 28.60 q ha⁻¹ for dry weight, 27.79 to 32.88 kg ha⁻¹ for N uptake, 4.67 to 5.60 kg ha⁻¹ for K uptake by pearl millet. However, results indicate that effect of nitrogen levels as well as splitting application was non-significant on succeeding crop pearl millet. Whereas, 100 kg N ha⁻¹ recorded significantly higher net returns (Rs. 31636 ha⁻¹) and higher B:C ratio (2.01). Further application of nitrogen in three equal splits (1/3 as basal + 1/3 at Ist irrigation + 1/3 at IInd irrigation) gave significantly higher net returns (Rs. 6806 and 32217 ha⁻¹) and B:C ratio (1.25 and 2.06), respectively, in fodder pearl millet and pearl millet with mustard over other split and basal applications of nitrogen.

Key Words : Fodder pearl millet, Growth, Nitrogen, Residual effect, Split application

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