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Research Article

Package of nutrients application for ravinous land of Bundelkhand on watershed basis

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Summary

The study on nutrients requirement for degraded ravinous land was carried out during three consecutive years in pilot area of Model Watershed Jalaun, Bundelkhand, U.P. The main objective of this study was to workout the nutrients requirement of different crops on the basis of watershed technology. The different varieties of gram gave maximum yield at 20 kg N+60 kg P_2O_5 / ha. Similarly, the different varieties of field pea's and cv.K75 of lentil also yielded highest grains at 20 kg N+60 kg P_2O_5 / ha. Cultivar T 21 and UPAS 120 of arhar gave maximum yields at 60 kg P_2O_5/ha in association of recommended dose of nitrogen. Application of 60 kg P_2O_5 / ha in association of recommended dose of nitrogen gave highest grain yield of urd by 10.43 q/ha. Gram, field pea's and wheat raised after soybean responded up to use of 25 kg N/ha, 25 kg N/ha and 160 kg N/ha, respectively. The different varieties of soybean gave maximum yield at 20 kg N+80 kg P_2O_5 + 40 kg K_2O/ha. Likewise, the different varieties of mustard gave maximum yield at 150 kg N/ha as compared to lower doses of nitrogen. Mustard gave maximum yield by 33.80 q /ha with the use of 40 kg S/ ha in conjunction of 80 kg N + 40 kg P_2O_5 + 40 kg K_20 /ha. Varsha variety of jowar yielded maximum grains at 80 kg N/ha on the both class of land *i.e,*. II and III under rainfed situation. The direct seeded rice gave maximum yield of 29.50 q/ha at 80 kg N/ha in the catchments area of nala bund. Application of 50 per cent nitrogen through F.Y.M. in association of 50 per cent nitrogen through urea provided higher yields of sugarcane, urd and mustard over the 100 per cent recommended dose of N through both urea and F.Y.M. Therefore, on the basis of above results, farmers may be advocated for application of 25 to 35 per cent more nutrients especially NPK over their recommended doses for reaping the better yield from the reclaimed ravionous land.

Key words : Ravines affected land, Nutrients management, Model watershed, Conservation agronomical practices, Catchments area of nala bund

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