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RESEARCH ARTICLE :

Effect of soil test based nutrient management approaches on grain yield and nutrient uptake of dry DSR-mustard cropping system

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SUMMARY : The improvement in grain yield characters was the manifestation of improved growth characters as a result of higher uptake of nutrients caused by balanced supply of nutrients in this regard soil test based nutrient management approaches aims provide a scientific basis for balanced fertilization to obtain more yield per unit of fertilizer investment. An experiment was conducted during *Kharif* and *Rabi* seasons of 2015-16 and 2016-17in the farmer field of Vijayanagar camp, Tq/Dist: Raichur, to study the effect soil test based nutrient management approacheson grain yield and nutrient uptake pattern in Dry DSR and their residual response was ascertained to mustard in DSR-mustard cropping sequence. Pooled results indicate that maximum rice yield (54.73 q ha^{-1}) was recorded with application of nutrients as per SSNM approach for targeted yield of 55 q ha^{-1} in Dry DSR.Similarly maximum mustard seed yield (592 kg ha^{-1}) was recorded with the residual effect of nutrients through SSNM approach targeted yield of 55 q $ha^{-1}$and higher uptake of nutrients (grain + straw) *viz*., nitrogen (117.72 kg ha^{-1}), phosphorus (40.50 kg ha^{-1}) and potassium (151.93 kg ha^{-1}) by Dry DSR. Similarly higher uptake of nutrients (seed + stover) *viz*., nitrogen (26.07 kg ha^{-1}), phosphorus (5.70kg ha^{-1}), and potassium (34.99kg ha^{-1}) by mustardwas recorded with residual effect of nutrients through SSNM approach targeted yield of 55 q ha^{-1}as compared to RDF, farmer practice and other soil test methods.

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