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RESEARCH PAPER

Yield gap analysis of integrated nutrient management in maize through front line demonstration

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SUMMARY

Maize (*Zea mays* L.) is a major crop of Chittorgarh district. It is the basic important stable food of the mass consumption of Mewar area of Rajasthan. One of the major constraint of traditional farming is low productivity due to non adoption of recommended fertilizer application specially integrated nutrient management. Through survey, farmers meeting and field diagnostic visit the yield gap was found. Maize is a common cropping sequence in large part of India, including Mewar of Rajasthan. However, productivity of this sequence under rainfed condition is quite low. A majority of the farmers in Rajasthan do not apply balance fertilizer of NPK in this sequence, mainly because of their ignorance about its role as well as high cost. The cereal based cropping system and application of continuous profit motivated imbalanced nutrient application is the matter of great concerned for sustainability. In spite of heavy inputs, the net result in such a system is the decline in crop productivity because of limitation of one or more nutrients. To overcome the yield gap 30 integrated nutrient management front line demonstrations of recommended package of practices involving balance fertilizer (@100 kg N_2+30 kg P_2O_5+30 kg K_2O ha^{-1}) at adopted farmers fields were laid out during *Kharif* 2008-09 to 2009-10 in two villages of two tehsils. Existing farmer's practices as control were taken for the comparison. Maize yield of demonstrated plot recorded 22.56 to 23.74 per cent higher over farmers practice. On an average, technology gap was found 8.68 qha^{-1}. Average extension gap and technology index were recorded 5.91 qha^{-1} and 21.33 per cent, respectively. The yield gap analysis emphasizes on the need to educate the farmers through various extension programs for adoption of integrated nutrient management measures to revert the trend of wide extension gap.

Key Words : INM Front line demonstration, Technology gap, Extension gap, Technology index

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