

Soil test based fertilizer prescription equations for wheat with conjoint use of manure and chemical fertilizers

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ABSTRACT

Divergent field experiments were conducted on the experimental farm of the Soil Test Crop Response Correlation Scheme, M.P.K.V., Rahuri. The experiment was conducted on four series (Typic chromustert) during the year 2000-2001, based on the fertility gradient approach (Ramamoorthy *et al.*, 1967). The data on initial soil test values for NPK, yield of grain, uptake of NPK by the crop and fertilizer nutrients applied were used to calculate the basic parameters viz nutrient requirement, contribution from soil, contribution from fertilizer and the contribution from FYM. Using the basic data, yield targeting equations for wheat were mathematically computed. The nutrient requirement to produce one quintal of wheat was 2.56 kg N, 0.64 kg P_2O_5 and 1.34 kg K_2O . The contribution from soil was 19.42, 66.30 and 6.85 per cent in respect of N, P_2O_5 , and K_2O respectively. While the coefficient of FYM was 2.08 N, 1.93 P_2O_5 and 0.21 K_2O , which was deducted from the equation to reduce the fertilizer dose.