

Integrated nutrient management, the first step for production sustainability and to improve nutrient content in wheat under alluvial soils of Northern Madhya Pradesh

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ABSTRACT : On account of continuing world energy crisis and spiraling price of chemical fertilizer, the use of organic manure as a renewable source of plant nutrients is assuming importance. In this endeavor proper blend of organic and inorganic fertilizer is important, not only for increasing yield but also for sustaining soil health. Thus, a field experiment was conducted during the *rabi* season of 2013-14 and 2014-15 on sandy clay loam soil to evaluate the effect of integrated nutrient management on productivity and nutrient uptake of wheat (*Triticum aestivum* L.) at Research Farm, College of Agriculture, Gwalior. The experiment consisted of twelve integrated nutrient management treatments. The results revealed that the yield attributing parameters as well as yield were recorded significantly higher with application of 100% recommended dose + FYM @ 2.5 t/ha + *Azotobactor* + PSB, in most of the cases. The application of 100% RDF+ FYM 2.5t/ha + *Azotobactor* + PSB recorded maximum uptake of N, P and K by wheat grain, straw and its total, which were significantly higher over control as well as most of the treatments. The uptake of micronutrients like Zn, Fe, Mn and Cu were also recorded significantly higher with application of 100% RDF+ FYM 2.5t/ha + *Azotobactor* + PSB over most of the INM treatments.

Key Words : Wheat, INM, azotobactor, production sustainability, improve nutrient content.