



Integrated Nutrient Management in Wheat (*Triticum aestivum*) under Temperate Himalayas

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Abstract: Field experiments were conducted at the Agricultural Research Farm of SKUAST-K, Shalimar campus, Srinagar during the rabi seasons 2007-2008 and 2008-2009 to evolve an integrated nutrient management system for wheat. Highest grain yield, protein content in grain and nutrient concentrations in grain and straw of wheat were recorded with the application of Recommended NPK + Zn + PSB + FYM followed by Rec. NPK + Zn + FYM, Rec. NPK + FYM, Rec. NPK + Zn + PSB and Rec. NPK + Zn. On application in conjunction with the recommended dose of NPK, the grain yield increased by 9.5, 13.1, 16.9, 21.9 and 23.6% and straw yield by 10.1, 12.4, 19.6, 24.1 and 23.4%, respectively with Zn, Zn + PSB, FYM, Zn + FYM and Zn + PSB + FYM. The treatment Rec. NPK + FYM was at par with Rec. NPK + Zn + FYM and Rec. NPK + Zn + PSB + FYM for both grain and straw yields and significantly superior over Rec. NPK for grain yield. Application of FYM along with fertilizers increased organic carbon, available nitrogen, phosphorus and potassium and DTPA-extractable zinc levels in the soil. Application of FYM was found to be as good as Zn applied through $ZnSO_4$ in improving the soil zinc status. The study revealed that recommended dose of NPK be supplemented with FYM, Zn + FYM or Zn + PSB + FYM to sustain higher wheat yields under temperate Himalayas.

Key words: Integrated nutrient management, Wheat, Yield, Uptake, Available nutrients.
