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Impact of different nutrient management practices on productivity and economics of soybean-wheat cropping system at farmers' field in Tikamgarh district of Madhya Pradesh

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ABSTRACT : Field experiment was conducted during two consecutive years of 2007-08 and 2008-09 to study the impact of nutrient management practices on productivity and economics of soybean-wheat cropping system at farmers' field in different blocks of Tikamgarh district of Madhya Pradesh. The application of full recommended dose of fertilizers (RDF) through chemical fertilizers + chemical weed control (T_3) exhibited higher grain yield of soybean and wheat followed by T_2 (50% through chemical fertilizers + 50% through FYM + chemical weed control) and T_1 (farmers' practices) during both the years of study as well as from pooled results. Pooled data on yield revealed that treatment T_3 increased the yield of soybean and wheat by 36.2 % and 21.0 %, respectively over farmer's practice (T_1). Per day productivity and mean wheat equivalent yield of the soybean-wheat system was also higher under T_3 treatment. Pooled data indicated that application of full RDF through chemical fertilizers + chemical weed control (T_3) gave 39.3% and 14.8% higher net return over T_1 and T_2 treatments, respectively. Mean net return per rupee invested (B:C) was higher (1.49) when crops were fertilized with full RDF through chemical fertilizers + chemical weed control (T_3) followed by T_2 (1.34) and the lowest (1.19) was recorded under farmers' practices. When crops were fertilized with full RDF through chemical fertilizers + chemical weed control (T_3) followed by T_2 (1.34) and the lowest (1.19) was recorded under farmers' practices.

Key Words : Cropping system, net return, nutrient management, soybean, wheat, wheat equivalent yield.