

Productivity and economics of soybean-wheat cropping system under different levels of NPK at farmer's field in different blocks of Tikamgarh district of Madhya Pradesh

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Received July 12, 2012 and Accepted September 22, 2012

ABSTRACT : A field experiment was conducted during two consecutive years of 2007-08 and 2008-09 at Farmer's Field in 5 blocks of Tikamgarh district of Madhya Pradesh to study the effect of different levels of NPK on productivity and economics in terms of net monetary return and B:C ratio in soybean-wheat cropping system. The application of recommended doses of NPK (T_5) exhibited their superiority by recording higher grain yield of both soybean and wheat crops over rest of the treatments during both years of study. The recommended doses of NPK (T_5) increased the soybean yield over control (T_1) by 71.2 % and 48.6 % in 2007-08 and 2008-09, respectively and wheat by 35.2 % and 33.9 % in 2007-08 and 2008-09, respectively. The mean wheat equivalent yield (WEY) was the highest (57.9 q/ha) with the application of recommended doses of NPK (T_5) in both soybean and wheat crops followed by T_3 (52.1 q/ha), T_4 (48.5 q/ha), T_2 (45.4 q/ha) and the lowest in T_1 (40.5 q/ha). Similarly, the highest NMR of Rs. 35475/ha and Rs. 50978/ha during 2007-08 and 2008-09 was recorded with application of recommended doses of NPK (T_5). The mean NMR per rupee invested (B:C) was higher (1.55) when crops were fertilized with recommended doses of NPK (T_5) and the lowest (1.16) was recorded when no fertilizers were applied to both the crops (T_1). Additional investment of Rs. 4854/ha in T_5 treatment, exhibited the additional NMR of Rs. 16567/ha over control (T_1). So the judicious use of money in right direction can pay positive results in terms of yield as well as additional NMR/ha.

Key Words: Cropping system, net monetary return, soybean, wheat, wheat equivalent yield