Yield gap analysis of Rapeseed-mustard through front line demonstrations

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ABSTRACT

Front Line Demonstration is an appropriate tool to demonstrate recommended technologies among the farmers. Krishi Vigyan Kendra, Ratlam (M.P.) conducted 50 demonstrations on mustard since 2005-06 to 2009-10 in five adopted villages. The critical inputs were identified in exiting production technology through farmers meetings and group discussions with the farmers. The average five years data revealed that an average yield of demonstration plot was obtained 18.94 q/ha. over local check (13.94q/ha) with an additional yield of 4.97q/ha and the increase average mustard productivity by 33.80%. The average technological gap and technological index were found to be 6.05 and 24.21%, respectively.

Key words: FLD, Adoption, Technological gap, Extension gap, Technological index, Rapeseed-mustard

INTRODUCTION

Oilseeds form the second largest agricultural commodity in India after cereals sharing 14% of the gross cropped area and accounting for nearly three per cent of gross national product and 10% value of all agricultural products. The continuous increase in import of oilseed is a matter of great concern today. Among the oilseeds crops, mustard occupies a prominent position in Indian oilseeds scenario. During 2006-07, total area under rapeseed-mustard was 6.79 million hectares with a total production of 7.44 million tones, contributing 30.64% of the total production of oilseed in India (total oilseed production in India was 24.28 million tons during 2006-07) (Anonymous, 2005).

In Madhya Pradesh, during 2006-07 the productivity of mustard was 939 kg/ha. area under cultivation 830 thousand ha. and total production 706 thousand tones. Though rapeseed-mustard group of crops occupy prominent position in the state oilseeds scenario but vast yield gap exists between potential yield and yield under real farming situation.

In Ratlam district of M.P. the poor productivity is because resource poor farmers are very reluctant toward proper scientific management of the crop.

METHODOLOGY

The study was carried by KVK Ratlam during Rabi season from 2005-06 to 2009-10 (five consecutive years) in the farmers field of six adopted villages (Richha Dewada, Semalia, Sakkarkhedi, Roopnagar, Bhimakhedi, Bilandpur and KVK farm) of Ratlam district. During these five years of study, an area of 20 ha. was covered with plot size 0.50 ha. under front line demonstration with active participation of 50 farmers. Before conducting FLDs, a list of farmers was prepared from group meeting and specific skill training was imparted to the selected farmers regarding different aspects of cultivation (Venkattakumar et al., 2010). The difference between the demonstration package and existing farmers practices are given in Table 1.

In general the soils under study was black cotton soil in texture with a pH ranging between 7.00-8.5 pH. The available nitrogen, phosphorus and potassium varied between 140-245, 9-32 and 255-570 kg/ha, respectively. However, the soils were deficient in sulphur status.

In demonstration plots, use of quality