RESEARCH PAPER

Performance of improved technologies on yield and economics of sesame (Sesamum indicum) in front line demonstration of Firozabad district in Uttar Pradesh

RAJIV* AND M.R. DABAS

C.S.A. University of Agriculture and Technology, KANPUR (U.P.) INDIA (Email : rajiv.tanuvi@gmail.com)

ABSTRACT

In Firozabad district of Uttar Pradesh, 45 front line demonstrations were carried out to demonstrate the performance of improved technologies on yield and economics of sesame during *Kharif* 2006 and 2007. Whole package of technologies increased the seed yield by 163.68 and 153.70 per cent and net return by 209.43 and 202.51 per cent over farmer's practices during 2006 and 2007, respectively. Individual technologies also increased the yield and net return over farmer's practice during both years. Among those, highest seed yield and net returns were recorded with recommended fertilizers followed by plant protection measures. Increase in yield and returns over farmer's practice was observed higher with these technologies.

Rajiv and Dabas, M.R. (2011). Performance of improved technologies on yield and economics of sesame (*Sesamum indicum*) in front line demonstration of Firozabad district in Uttar Pradesh. *Internat. J. agric. Sci.*, **7**(2): 370-372.

Key words : Sesame, Rainfed, Yield, Economics, Improved technology

INTRODUCTION

Sesame in Uttar Pradesh is traditionally grown during rainy season under rainfed condition. It is grown mostly on marginal and sub-marginal lands without use of proper inputs. Thus the productivity of crop in the state is quite low (162 kg/ha) against the national average of 345 kg/ ha. The results of research experiments have shown that by adopting improved technology sesame yield of 6-7q/ha may be harvested to demonstrate such technologies. All India coordinated research project on sesame and niger has organized front line demonstration on farmer's fields at different centres in the country. In the same sequence, such demonstrations were carried out in district Firozabad of Uttar Pradesh during the years *Kharif* 2006 and 2007.

MATERIALS AND METHODS

The front line demonstrations 45 in number were carried out at farmer's fields under rainfed condition during *Kharif* season. The soils were sandy loam in texture and slightly alkaline in nature having pH ranged from 7.4 to 7.8. Fertility status of soils was in general low with respect to nitrogen and phosphorus, while medium in potassium. Technologies demonstrated were whole package of practices (improved variety + fertilizers + plant protection + thinning + hand weeding), fertilizer, plant protection measures and intercropping technique.

Farmer's practice contained local variety and hand weeding. Each improved technology was demonstrated against farmers technique in different demonstrations. The improved variety used was "Skekhar". Fertilizer were applied at recommended rate of 30 kg N + 15 Kg P_2O_5 + 15 kg K₂O/ha. Plant protection measures included seed treatment with thirum @ 2.5 g/kg seed, basal dressing of phorate - 10G in seed furrows @ 15 kg/ha and spraying of methyle-o-dimeton (25EC) @ 1 litre/ha and that of copper oxichloride @ 3kg/ha on standing crop. Sowing was done during second fortnight of Jully in all demonstrations. A seed rate of 4 kg/ha was sown in furrows 30 cm apart in case of sole sesame and 45 cm apart in case of intercropping with green gram. In intercropping, one row of green gram was sown in between two rows of sesame. All fertilizers were applied at sowing as band placement. In improved technology plant spacing was maintained 10 cm by thinning after 3 weeks of sowing. One hand weeding was done between 20-30 days in both improved and farmer techniques. Crop was harvested at maturity and obtained seed yield was recorded. Economics parameters of crop cultivation in different techniques were also worked out.

RESULTS AND DISCUSSION

The results of the present study as well as relevant discussion have been summarized below :

^{*} Author for correspondence.