

Research
Note

Response of quality protein maize hybrid, Shaktiman -4 at farmers' field

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ABSTRACT

Front line demonstration were conducted at farmers' field under irrigated conditions in Muzaffarpur, Samastipur and Vaishali districts of Bihar during 2008-09 to demonstrate the production potential of Shaktiman -4 maize hybrid. It was found that there was 30 per cent seed yield increase as a result of adoption of this improved hybrid under real farm situations.

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KEY WORDS : Maize, Shaktiman-4, Front line demonstration

Shaktiman-4 is a single cross, high yielding variety, matures within 100 days in *Kharif* and 155 days in *Rabi*. Each plants bears usually two well filled cobs having good husk cover. It is quality protein maize hybrid which has 9.63 per cent protein in grain, 0.73 per cent tryptophane and 2.96 per cent lysine in grain protein with orange yellow flint kernels. It is suitable for timely as well as late sown condition in both *Kharif* and *Rabi* season. The highest yield of Shaktiman-4 is 95q/ha. The average yield of maize in the state during *Rabi* 2006-07 was 2855 kg/ha. due to higher cost of private commercial hybrid marketed in the question of economics of hybrid use has assumed great importance. With a view to convince the farmer about the profitability of hybrid use, this work was carried out at farmers' fields.

Farmers from Muzaffarpur, Samastipur and Vaishali were selected to demonstrate productivity potential of shaktiman -4 maize hybrid during 2008-2009 in collaboration with KVKs. Hybrid seeds of Shaktiman-4, seed treatment chemical bavistin and chemical fertilizers

(DAP, urea, potash) were supplied to the farmers for conducting FLDs. Farmers in these districts were successfully trained by multidisciplinary scientists of AICRP (Maize) TCA, Dholi for managing this crop in better way to overcome the low productivity. All recommended technologies were followed in demonstrations and improved technology was compared with farmers' practice. The seed yield in improved technology and farmers' practice plot was recorded after harvest. The gross and net monetary return, per cent increased in yield etc. were worked out and compared with farmers' practice.

Performance of Shaktiman 4 maize hybrid in front line demonstrations conducted during 2008-09 are given Table 1. The data indicate that yield of maize in demonstration plots varied from 5741 to 5921 kg/ha against a yield ranged from 4483 to 4691 kg/ha under farmers' practices. In comparison of local check there was an increase in yield ranging from 26.2 to 30.11 per cent. The higher yield was attributed to adoption of latest variety,

Table 1 : Performance of Shaktiman-4 under real farm situations

Year	Location (Districts)	No. of FLDs conducted	Area (ha)	Mean yield (kg/ha)		(% increase yield)	Addl. net returns (Rs./ha)	B:C ratio	
				IT	FP			IT	FP
2008-	Muzaffarpur	50	20	5921	4691	26.2	32120	1.83	1.36
2009	Samastipur	65	26	5831	4483	30.11	31064	1.79	1.30
	Vaishali	15	6.0	5741	4507	27.4	29960	1.76	1.31

proper sowing method, seed treatment, irrigation, integrated nutrient, weed and pest management. The benefit cost ratio of the demonstration plot varied from 1.76 to 1.83 and that of local check varied from 1.30 to 1.36. It can be concluded that cultivation of hybrid variety Shaktiman-4, integrated nutrient and pest management proved to be more productive and remunerative than local variety.

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