

POPULARIZATION OF IMPROVED MAIZE HYBRIDS THROUGH FRONTLINE DEMONSTRATION IN MIDDLE GUJARAT

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ABSTRACT

Maize (*Zea mays L.*) is one of the most important cereal grains grown worldwide in a wider range of environments because of its greater adaptability. It is mainly used as a food source and now has become the most important raw material for animal feed. Attempts are made to improve productivity and to increase area under maize by adopting improved maize hybrids. In order to compare local variety total 50 FLDs in ICAR programme and 140 FLDs in STATE programme were carried out in systematic manner on farmer's field to show the worth of new maize hybrids. In the STATE programme it was observed the improved maize hybrids recorded the higher average yield 2503.4 kg/ha in kharif and 3707.9 kg/ha in rabi season, respectively. The percent increase was found 18.82 % in kharif and 17.65 % in rabi season. In ICAR programme it was observed improved maize hybrids recorded the higher average yield 3290.7 kg/ha in kharif and 3767.5 kg/ha in rabi season, respectively. The percent increase was found increase 41.48 % in kharif and 27.05 % in rabi season.

Keywords: infertility, awareness, buffalo owners, respondents

INTRODUCTION

Maize (*Zea mays L.*) is popularly known as "corn" is one of the most versatile emerging cash crop having wider adaptability under varied climatic condition. It is called the queen of cereals globally. In India maize is the third most important food cash crop after wheat and rice. Maize (*Zea mays L.*) is one of the main source of cereals for food, forage and processed industrial products. World production of maize is around 790 million tones and it serves as a staple food providing more than one-third of the calories and proteins in some countries. By 2050 demand for maize will double in the developing world, and maize is predicted to become the crop with the greatest production globally. It has assumed greater significance due to its demand for food, feed and industrial utilization. The global production of maize is next to wheat and rice.

In India, maize (*Zea mays L.*) is one of the important cereals. Maize is the third most important food crop in the world surpassed only by two other grains, wheat and rice. India's Maize production is in between 10-14 million tones, with 80- 90% of the production being in the Kharif season. Considering the nutritive values of corn and entire plant, it is very popularly used as a fodder in different state of India. The productivity of maize per unit could be increased by adopting recommended scientific practices using improved high yielding varieties. Taking into account the above

consideration, frontline demonstration were undertaken in systematic manner on farmer's field to show the worth of a new varieties and convince the farmers to adopt improved scientific practices of maize for enhance productivity. The study was aimed to find out yield, % increase over affecting the adoption of new improved variety.

OBJECTIVE

To study the popularization of improved maize hybrids through front line demonstration in middle Gujarat.

METHODOLOGY

The study was conducted in Panchmahal, Dahod and Mahisagar district of middle Gujarat to popularize the improved maize hybrids.

In this methodology, recommended agronomic practices were used for FLDs in 0.4 ha area and same area was also for local variety. To study the impact of front line demonstration, 50 farmers were given FLDs under the ICAR programme. In this total 20 ha area were covered in front line demonstration. Besides in STATE programme 140 farmers were given FLDs. In this total 56 ha area were covered in front line demonstration. Production data such as average yield of improved maize hybrids, average yield of local variety and % increase over for FLDs and local practices were collected and analyzed.

RESULTS AND DISCUSSION

A comparison of front line demonstration based on farmers practice was analysed and presented under ICAR programme in table 1. In this total 20 ha area was covered in front line demonstration in kharif and rabi season. During the period of study, it was observed that in front line

demonstration, the improved maize hybrids recorded the higher average yield 3290.7 kg/ha in kharif and 3767.5 kg/ha in rabi season as compared to local variety 2343.7 kg/ha in kharif and 2965.5 kg/ha in rabi season, respectively. Similarly, the per cent increase improved maize hybrids was found to increase 41.48 % in kharif and 27.05 % in rabi season.

Table 1 : Yield and per cent increase over Front line demonstration under ICAR Programme

(n=50)

Sr No	Season	District	Variety	No of FLDs	Total Area (ha)	Ave.Yield (kg/ha)	Ave.Yield Local variety (kg/ha)	% increase over
1	Kharif-17	Panchmahal	Maize Hybrids	25	10	3290.7	2343.7	41.48
2	Rabi-2018-19	Panchmahal & Mahisagar	Maize Hybrids	25	10	3767.5	2965.5	27.05

Besides, A Comparison of front line demonstration based on farmers practice were analyzed and presented under state improvement programme in different district of middle Gujarat in table 2. In this total 56 ha area was covered in front line demonstration in kharif and rabi season. During the period of study, it was observed that in front line demonstration, the

improved maize hybrids recorded the higher average yield 2503.4 kg/ha in kharif and 3707.9 kg/ha in rabi season as compared to local variety 2110 kg/ha in kharif and 3153.9 kg/ha in rabi season, respectively. Similarly, the per cent increase improved maize hybrids was found to increase 18.82 % in kharif and 17.65 % in rabi season.

Table 2 : Yield and per cent increase over Front line demonstration under STATE Programme

(n=40)

Sr No	Season	District	Variety	No of FLDs	Total Area (ha)	Ave.Yield (kg/ha)	Ave.Yield Local variety (kg/ha)	% increase over
1	Kharif-17	Panchmahal, Dahod & Mahisagar	Maize Hybrids	70	28	2503.4	2110	18.82
2	Rabi-2017-18			70	28	3707.9	3153.9	17.65

From these results it is revealed that the performance of improved maize hybrids was found better than the local variety and local practices.

CONCLUSION

The Study revealed that the productivity, production and area under maize cultivation can be improved by adopting improved maize hybrids which can be popularized through front line demonstration in different district of middle Gujarat. In the STATE programme it was observed the improved maize hybrids recorded the higher average yield 2503.4 kg/ha in kharif and 3707.9 kg/ha in rabi season, respectively. the percent increase was found 18.82 % in kharif and 17.65 % in rabi season. In ICAR programme it was observed improved maize hybrids recorded the higher average yield 3290.7 kg/ha in kharif and 3767.5 kg/ha in rabi season, respectively. the percent increase was found increase 41.48 % in kharif and 27.05 % in rabi season.

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