

## KNOWLEDGE OF TRAINED MAIZE FARMERS ABOUT RECOMMENDED MAIZE PRODUCTION TECHNOLOGY

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### ABSTRACT

The present study was conducted in Panchmahals district of middle Gujarat with an objective to study the knowledge of trained maize farmers about recommended maize production technology. The data were collected personally interviewing the selected 100 respondents with the help of structured schedule. Results of the study revealed that vast majority of trained maize farmers had enough knowledge about suitable sowing time of kharif maize and soil type. Majority (70.00 %) of maize farmers had knowledge about ploughing, harrowing and thinning operations and seed rate. Majority (83.00 %) of trained maize farmers had knowledge about university recommended composite varieties and less than two-third (65.00 %) trained maize farmers had knowledge about university recommended hybrid varieties. Less than one-third (30.00 %) of the trained maize farmers had knowledge about the seed treatment. Half (50.00 %) and more than two-third (69.00 %) trained maize farmers had knowledge about sowing distance of hybrid and composite varieties respectively. As far as weed management is concerned more than half (58.00 %) and nearly half (48.00 %) of the trained maize farmers had knowledge about name and recommended dose of herbicide respectively for the weed control. Concern to fertilizer management more than half (58.00 %) of trained maize farmers had knowledge about FYM application and less than two-third (65.00 %) and three-fifth (60.00 %) of trained maize farmers had knowledge about recommended dose of nitrogen for composite and hybrid varieties, while more than half of trained maize farmers had knowledge about recommended dose of phosphorous for composite and hybrid varieties. In case of insect name and their control measures majority (80.00 %) had knowledge about occurrence of stem borer, majority (70.00 %) and more than half (55.00 %) of trained maize farmers had knowledge about name and recommended dose of insecticide to control stem borer. In case of major disease control in maize majority of trained maize farmers had knowledge about occurrence of TLB (78.00 %) and late wilt (85.00 %) disease more than half of trained maize farmers had knowledge about name of chemical fertilizer and recommended dose of chemical to control TLB (68.00 & 50.00 %) and late wilt disease (67.00 & 52.00 %). Vast majority (85.00 %) of trained maize farmers had enough knowledge of maturity sign of kharif maize harvesting.

**Keywords:** maize farmers, knowledge, maize production technology

### INTRODUCTION

Maize (*Zea mays* L.) is the third most important cereal crop of the world and India after wheat and rice. Maize is an important cereal crop of Gujarat state, which is not only a staple diet of tribal farmers but also fulfil their diversified needs of foods, fuel and fodder. It is usually grown as *kharif* and *rabi* crop in district viz., Panchmahals, Dahod, Mahisagar, Chhotaudepur, Vadodara, Arravali, Narmada, Sabarkantha and Banaskantha. The state of Gujarat is the traditional maize growing state that covers 06 per cent of the total maize area. Maize is predominantly cultivated under rained condition in *kharif* season. The productivity of maize in Gujarat state is about 1478 kg/ha. Which is low as compared to national

average productivity (2965 kg/ha). (ICAR-Indian Institute of Maize Research 2018-19) Increasing the productivity and improving the economic condition of the farmers, depends on the level of knowledge and skills of the farmers.

The average yield after following all the recommended practices is expected to be 45 to 50 q/ha, but average productivity of maize crop in India in general and Gujarat in particular, is low mainly because of low knowledge about improved cultivation practices of maize by the farmers. There is a need to increase maize yield. The present research, therefore, aims to Study the knowledge level of trained maize farmers about recommended maize production technology.

**OBJECTIVE OF THE STUDY**

To study the knowledge level of trained maize farmers about recommended maize production technology

**METHODOLOGY**

The present study was conducted in Panchmahals district where maize is cultivated as a main crop. Two talukas of

Panchmahals district. i.e. Morva(Hadaf) and Shahera were selected. From each taluka five villages were selected for the study. Among the selected villages, ten trained maize farmers were selected. Thus, total 100 maize farmers were selected for the study. The questionnaire was prepared in accordance with the objective. The data were collected personally, tabulated, analyzed and interpreted with frequency, percentage, mean.

**RESULTS AND DISCUSSION****Knowledge level of trained maize farmers about recommended maize production technology****Table 1 : Knowledge level of trained maize farmers about recommended maize production technology (n=100)**

Sr. No.	Particulars	Frequency	Percent
1	Suitable type sowing of <i>kharif</i> maize	95	95.00
2	Suitable soil types	90	90.00
3	One deep ploughing and 2-3 harrowing	70	70.00
4	Improved varieties		
	University recommended composite varieties	83	83.00
	University recommended hybrid varieties	65	65.00
5	Seed rate (15 to 20 kg/ha)	70	70.00
6	Seed Treatment	30	30.00
7	Spacing (60 cm x 20 cm) for Composite varieties	69	69.00
	Spacing (75 cm x 20 cm) for Hybrid varieties	50	50.00
8	Weed management		
	Manual	45	45.00
	Name of herbicide	58	58.00
	Recommended dose	48	48.00
9	Thinning (8-10 days after sowing)	71	71.00
10	Fertilizer management		
	FYM	58	58.00
	Chemical fertilizer for composite varieties		
	Recommended dose of nitrogen	65	65.00
	Recommended dose of phosphorus	53	53.00
	Chemical fertilizer for hybrid varieties		
	Recommended dose of nitrogen	60	60.00
	Recommended dose of phosphorus	55	55.00
11	Fertilizer application at different stage	70	70.00
12	Majorinsect control in maize		
	Stem borer		
	Knowledge of occurrence of stem borer	80	80.00
	Knowledge of name of chemical to control stem borer	70	70.00
	Knowledge of recommended dose of chemical to control stem borer	55	55.00
13	Major disease control in maize		
	Turcicum leaf blight (A)		

Sr. No.	Particulars	Frequency	Percent
	Knowledge of occurrence of turcicum leaf blight	78	78.00
	Knowledge of name of chemical to control turcicum leaf blight	68	68.00
	Knowledge of recommended dose of chemical to control turcicum leaf blight	50	50.00
	Late wilt (B)		
	Knowledge of occurrence of Late wilt	85	85.00
	Knowledge of name of chemical to control Late wilt	67	67.00
	Knowledge of recommended dose of chemical to control Late wilt	52	52.00
14	Harvesting		
	Maturity sign of <i>Kharif</i> Maize	85	85.00

Table 1 shows that vast majority of trained maize farmers had enough knowledge about suitable sowing time of *kharif* maize and soil type. Majority (70.00 %) of maize farmers had knowledge about ploughing, harrowing and thinning operations and seed rate. Majority (83.00 %) of trained maize farmers had knowledge about university recommended composite varieties and less than two-third (65.00 %) trained maize farmers had knowledge about university recommended hybrid varieties. Less than one-third (30.00 %) of the trained maize farmers had knowledge about the seed treatment. Half (50.00 %) and more than two-third (69.00 %) trained maize farmers had knowledge about sowing distance of hybrid and composite varieties respectively. As far as weed management is concerned more than half (58.00 %) and nearly half (48.00 %) of the trained maize farmers had knowledge about name and recommended dose of herbicide respectively for the weed control. Concern to fertilizer management more than half (58.00 %) of trained maize farmers had knowledge about FYM application and less than two-third (65.00 %) and three-fifth (60.00 %) of trained maize farmers had knowledge about recommended dose of nitrogen for composite and hybrid varieties, while more than half of trained maize farmers had knowledge about recommended dose of phosphorous for composite and hybrid varieties. In case of insect name and their control measures majority (80.00 %) had knowledge about occurrence of stem borer, majority (70.00 %) and more than half (55.00 %) of trained maize farmers had knowledge about name and recommended dose of insecticide to control stem borer (Soni and Verma, 2019).

In case of major disease control in maize majority of trained maize farmers had knowledge about occurrence of TLB and late wilt disease more than half of trained maize farmers had knowledge about name of chemical fertilizer and recommended dose of chemical to control TLB and late wilt

disease.

### CONCLUSION

Vast majority of the trained maize farmers had enough knowledge about suitable sowing time, soil type and university recommended varieties, nature of damage of stem borer, TLB and Late wilt disease. Majority of the trained maize farmers had knowledge about ploughing and harrowing, thinning, seed rate, fertilizer application at different stage, name of insecticide and chemical to control stem borer, TLB and late wilt disease, where more than half of the trained maize farmers had knowledge about sowing distance, herbicide name and recommended dose, FYM application, recommended dose of chemical fertilizer for Nitrogen and Phosphorous, recommended dose of insecticide and chemical to control stem borer, TLB and late wilt disease.

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