



ISSN (E): 2320-3862
ISSN (P): 2394-0530
NAAS Rating: 3.53
JMPS 2018; 6(6): 21-24
© 2018 JMPS
Received: 08-09-2018
Accepted: 10-10-2018

Mahaveer Choudhary
Associate Professor Ext.
Education, CoA, NAU, Waghai,
Dangs, Gujarat, India

JB Dobariya
Scientist Ext. Education, Krishi
Vigyan Kendra, NAU, Waghai,
Dangs, Gujarat, India

SA Aklade
Assistant Professor, Department
of Horticulture, Polytechnic in
Agriculture, NAU, Waghai,
Dangs, Gujarat, India

SS Sonavane
Assistant Professor, Department
of Horticulture Agronomy,
Polytechnic in Agriculture,
NAU, Waghai, Dangs, Gujarat,
India

Correspondence
Mahaveer Choudhary
Associate Professor Ext.
Education, CoA, NAU, Waghai,
Dangs, Gujarat, India

Awareness and adoption of improved sapota production technology by the farmers

Mahaveer Choudhary, JB Dobariya, SA Aklade and SS Sonavane

Abstract

Sapota or sapodilla commonly known as ‘*Chiku*’ is an evergreen fruit tree. India is considered to be the largest producer of sapota in the world. The major sapota producing states in India are Karnataka, Maharashtra, Gujarat, Andhra Pradesh and Tamil Nadu. Sapota is a hardy tropical fruit crop and it prefers warm but moist weather and grows in both dry and humid areas. The valsad district consist of five talukas i.e. Pardi, Dharampur, Valsad, Kaparada and Umernagar out of these Pardi taluka was selected purposively for study purpose. The results show that majority of the sapota grower’s possessed medium awareness and adoption level about improved sapota technology.

Keywords: Sapota, awareness, adoption and farmers

Introduction

Sapota (*Manilkara achras* (Mill.) Fosberg) is one of the most important fruit in southern and western part of the country due to its wide range of adaptability, low production cost and reasonable economic returns with very low pest and disease susceptibility. Sapota or sapodilla commonly known as ‘*Chiku*’ is an evergreen fruit tree. India is considered to be the largest producer of sapota in the world. The major sapota producing states in India are Karnataka, Maharashtra, Gujarat, Andhra Pradesh and Tamil Nadu. Sapota is a hardy tropical fruit crop and it prefers warm but moist weather and grows in both dry and humid areas. Coastal climate with an annual rainfall of 125-250 cm optimum temperature between 11-34°C is best suited. Sapota is of tropical region crop, needs warm (10-38°C) and humid climate where, it starts flowering from 3rd year onwards and continues during the life span in hot and humid area of coastal region. Flowers through the years in several flushes at short intervals and consequently, the fruits set by these flushes also mature at different times. However, the economic yield can be obtained from seventh year onwards.

Sapota is grown in India on an area of 1, 56,000 ha yielding 13, 08,000 MT with a productivity of 8.4 MT/ha (Anon., 2009). It is grown in Gujarat on an area of 26,700 ha with an annual production of 2, 55,400 MT and a productivity of 9.6 MT/ha (Anon., 2009). In Valsad, area under sapota crop is 3,280 ha with 29,520 MT of annual production (Anon., 2009). Out of several cultivars, Kalipatti is the main preference of the sapota growers and therefore more than 99 % area under sapota in south Gujarat is under this cultivar. Sapota mainly used as a fresh fruit and it is important source of earning money after the mango fruit and provides the employment to the large number of people.

Our research scientists, extension workers and farmers have great responsibility to maximize the production of sapota which is possible if farmers aware & adopt new technology. A number of technologies available and have shown the potentiality of new farm technology to be highly effective, adoptable and economic viable. The low production may be due to the farmers being unaware about improved sapota technology or they may be facing some problems in its adoption at their own farms.

Keeping all these views in mind, the present investigation entitled “Awareness and adoption of improved sapota production technology by the farmers” was undertaken with the following specific objectives:

Objectives

1. To study the awareness level of farmers about improved sapota technology.
2. To find out the adoption level of farmers about improved sapota technology.

Research Methodology

1. Selection of district:- Valsad
2. Selection of taluka & village: - The valsad district consist of five talukas i.e. Pardi, Dharampur, Valsad, Kaparada and Umergam out of these Pardi taluka was selected purposively for study purpose. Five village were selected from selected taluka by simple random sampling technique.
3. Selection of respondents: - A list of sapota growers was prepared from selected village. Out of those 15 respondents were selected from each village by simple random sampling technique. Thus total sample of 75 farmers was drawn for study purpose. The structural interview schedule was used for data collection. The data were tabulated and analyzed in the light of the objectives.

Result and Discussion

i) Awareness level of farmers about improved sapota technology

The awareness level of the respondents about improved sapota technology was measured with the help of awareness test. The respondents were assigned scores based on their performance in the test. The range of awareness score was divided into three categories after computing mean and standard deviation. These three categories are presented in table-1.

Table 1: Awareness level of farmers about improved sapota technology

S. No.	Categories	Frequency	Per cent
1.	Low awareness level (score up to 4.02)	17	22.66
2.	Medium awareness level (score from 4.03 to 15.02)	43	57.34
3.	High awareness level (score above 15.02)	15	20.00

The table states that on the whole 57.34 per cent of the Sapota growers possessed medium awareness level about improved sapota technology. About 22.66 per cent respondents had low awareness level whereas only 20.00 per cent farmers had high awareness level about improved sapota technology.

Furthermore, the extent of awareness about different improved practices of sapota cultivation was analyzed separately. The relative importance of selected practices of improved sapota technology was highlighted on the basis of mean per cent score of awareness. The data has been presented in table-2

Table 2: Extent of awareness of farmers about improved sapota technology

Sr. No.	Improved practices	MPS*
1.	HYV	37.34
2.	Graft making	98.66
3.	Time of planting	85.34
4.	Inter cropping	46.66
5.	Fertilizer application	44.00
6.	Weed management	38.66
7.	Plant protection measures	32.40
8.	Sorting & Grading	70.66

* Mean per cent score

The farmers had highest awareness i.e. up to 98.66 per cent about graft making. The second highest awareness of the farmers was towards time of planting (85.34 per cent) followed by sorting & grading (70.66 per cent), inter cropping (46.66 per cent) and fertilizer application (44.00 per cent).

The practices like weed management, High yielding varieties and plant protection measures were moderately aware by the farmers to the extent of 38.66 per cent, 37.34 per cent and 32.40 per cent respectively. As far as extent of awareness of farmers about different aspects of improved sapota technology was concerned, these were analyzed separately and have presented in table-3.

Table 3: The extent of awareness of farmers about different aspects of improved sapota technology

S. No.	Aspect	Frequency	Per cent
1.	Sapota HYV		
	1.1 Kalipatti	75	100.00
	1.2 Cricket ball	08	10.66
	1.3 PKM-1	01	1.34
2.	Graft making		
	2.1 Rayan tree stalk was used for graft making	74	98.66
3.	Time of planting	64	85.34
4.	Inter cropping	35	46.16
5.	Fertilizer application		
	5.1 Suitability of FYM for sapota	55	73.34
	5.2 Recommended dose of Nitrogen	40	53.33
	5.3 Recommended dose of phosphorus	24	32.00
	5.4 Recommended dose of potash	13	17.33
6.	Weed management	29	38.66
7.	Plant protection measures		
	(a) common insect-pests and their control in sapota		
	(i) Fruit fly	57	76.00
	(ii) Bud borer	27	36.00
	(iii) Seed borer	11	14.66
	(iv) Methyl eugenol trap	36	48.00
	(v) Quinalphos	18	24.00
	(vi) Monochrotophos, DDVP	07	9.54
	(b) common disease and their control in sapota		
	(i) Wilt	43	57.33
	(ii) Leaf spot	12	16.00
	(iii) Bavistin	22	29.33
	(iv) Mencozeb	10	13.34
	8	Sorting & Grading	53

ii) To find out the adoption level of farmers about improved sapota technology

A close look at table-4 explains that on the whole 72.00 per cent of the sapota growers were found to be medium adopters about sapota cultivation practices. About 16.00 per cent respondents had low adoption level whereas only 12.00 per cent farmers had high adoption level about improved sapota technology.

Table 4: Adoption level of sapota growers about improved sapota technology

S. No.	Categories	Frequency	Per cent
1.	Low adoption level (score up to 2.0)	09	12.00
2.	Medium adoption level (score from 2.01 to 9.0)	54	72.00
3.	High adoption level (score above 9.0)	12	16.00

Furthermore the extent of adoption about different improved practices of sapota technology was analyzed separately. The relative importance of selected practices of improved sapota technology was highlighted on the basis of mean per cent score of adoption. The data has been presented in table-5.

Table 5: Extent of adoption of farmers about improved cultivation practices of mango

Sr. No.	Improved practices	MPS*
1.	HYV	33.33
2.	Graft making	98.66
3.	Time of planting	81.33
4.	Inter cropping	29.34
5.	Fertilizer application	32.33
6.	Weed management	16.00
7.	Plant protection measures	14.40
8.	Sorting & Grading	24.00

* Mean per cent score

The above table reveals that the extent of adoption of selected practices of sapota was measured for the crop. It was found that out of selected practices the extent of adoption of Graft making was 98.66 per cent. About 81.33 per cent farmers were adopting time of planting, followed by sapota variety (33.33 per cent) and fertilizer application (32.33 per cent). The practices like inter cropping, sorting & grading, weed management and plant protection measures were moderately adopted by the farmers to the extent of 29.34 per cent, 24.00, 16.00 and 14.40 per cent respectively. As far as extent of adoption of farmers about different aspects of improved practices of sapota cultivation was concerned, these were analyzed separately and have presented in Table-6.

Table 6: The extent of adoption of farmers about different aspects of improved sapota technology

Sr. No.	Aspect	Frequency	Per cent
1.	Sapota HYV		
	1.1 Kalipatti	75	100.00
	1.2 Cricket ball	0	0.0
	1.3 PKM-1	0	0.0
2.	Graft making		
	2.1 Rayan tree stalk was used for graft making	74	98.66
3.	Time of planting	61	81.33
4.	Inter cropping	22	29.34
5.	Fertilizer application		
	5.1 Used of FYM in sapota	36	48.0
	5.2 Used recommended dose of Nitrogen	31	41.33
	5.3 Used recommended dose of phosphorus	20	26.66
	5.4 Used recommended dose of potash	10	13.34
6.	Weed management	12	16.00
7.	Plant protection measures		
	(a) common insect-pests and their control in sapota		
	(i) Methyl Eugenol trap used	22	29.33
	(ii) Quinalphos used	13	17.34
	(iii) Monochrotophos, DDVP used	04	5.34
	(b) common disease and their control in sapota		
	(i) Bavistin	12	16.00
(ii) Mencozeb	03	4.00	
8.	Sorting & Grading	18	24.00

Adoption of farmers towards sapota technology may be directly or indirectly related to awareness of farmers about improved sapota cultivation. Hence, it was considered necessary to assess the awareness of the farmers about sapota technology. From the findings it was clear that majority of the respondents had low to medium awareness level regarding improved practices like plant protection measures, weed management and fertilizer application in sapota cultivation. The low to medium adoption level might be attributed to fear among the farmers about innovations, less exposure to information sources, low interest and less contact with extension personnel.

Conclusion

It can be concluded from the findings that majority of the respondents had low to medium awareness level regarding improved practices like plant protection measures, weed management and fertilizer application in sapota cultivation. The low to medium adoption level might be attributed to fear among the farmers about innovations, less exposure to information sources, low interest and less contact with extension personnel.

References

1. Sonawane HP, Pharate DN, Bhingardev SD. Improved

- strawberry production practices adopted by the growers. Asian J. of Ext. Edu. 2010; 28:128- 130.
2. Jadhav B, Manjunath L. Knowledge level of farmers regarding recommended cultivation practices of mango. Agril. Update. 2011; 6(2):73-76.
 3. Borate HV, Mahadik RP, Hake AD, Sawant PA. Knowledge and adoption of sapota growers in Thane district. Int. Res. J Agric. Eco. & Stat. 2012; 3(1):159-161.
 4. Mehta BM, Sonawane M. Entrepreneurial behaviour of mango growers of Valsad district of Gujarat state. Ind. Res. J of Ext. Edu. 2012; 12(1):78- 82.
 5. Tandel BM*, Prabhu Nayka KA Shah, Timbadiya CK. Knowledge level of sapota growers about scientific package of practice. Agriculture Update. 2015; 10(1):84-85.