

Fruit Cultivation Problems of Villages in Satara District: A Geographical Study

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Abstract

The main objective of this research paper is to discuss the problems of fruit cultivation in villages of the Satara district. The researcher has selected 44 villages. It is 20 percent of the total villages. The stratified random sampling technique is used for a number of villages while purposive sampling is used for the selection of villages. A detailed and formal discussion with the village heads has been done through a detailed schedule of 9 points, which helps us to know the problems of fruit cultivation in the villages in the study area. This study concludes that various fruit cultivation problems are observed in the study area. All these fruit cultivation problems are obstacles to the sustainable development of the study area. **Key words:** Fruit cultivation, Problems.

Introduction

Pomegranate, Mango, Strawberry, Custard apple and Sapota are among the fruits that have been developed in the study area. This technique has the ability to extensive commercial farming to be identified. (Phule, 2002). The area under this crop has gradually increased. The rate of increase has been steadily growing for the last two decades.

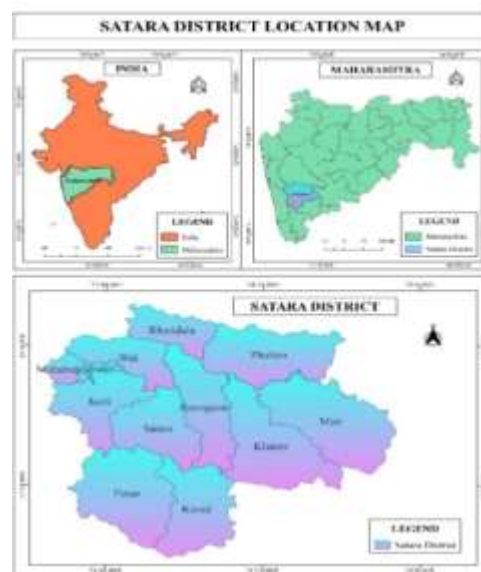
A few concerns with fruit cultivation need to be addressed. As a result, the first half of this research paper focuses on the cultivation of the major fruits (Pomegranate, Mango, Custard apple, Strawberry and Sapota). This research mainly aims to discuss the Problems in the cultivation of major fruits of the villages in the Satara district.

Study Area

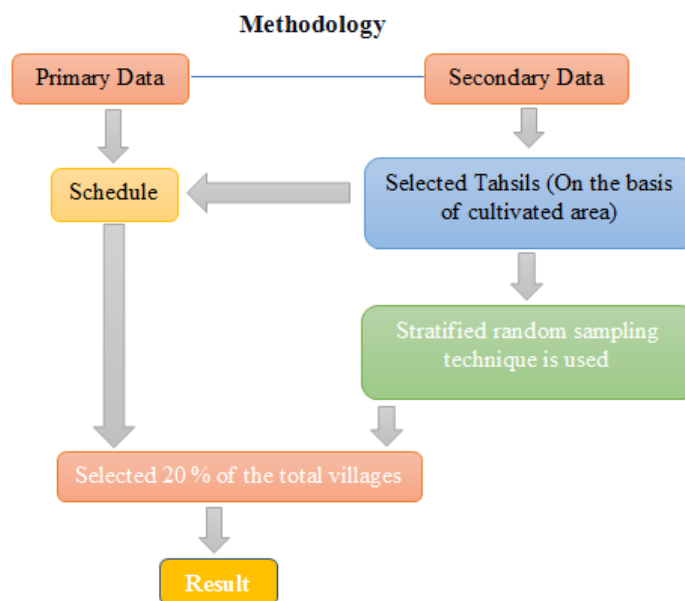
The study areas related to the subject Satara district north latitude 17°5 ' to 18° 11' and east line 73° 33' to 74° 54 ' . East of Satara district is 144 km north-south 120 km. As per the district, the area of the district is 10, 400 sq. Km and it covers 34% of the area of Maharashtra by Satara district. There are 11 tahsils in the district and seven north of the Pune District, West Raigad, Ratnagiri, Sangli south to East Solapur District.

Objective

1. To assess the fruit cultivation problems of villages in the study area.



(Fig. 1).



Problems in The Cultivation of Major Fruits

Growers face various problems during fruit cultivation which cause the fruit production to be low and more negligible in quality. Many peoples believe that Pomegranate, Mango, Custard apple, Strawberry and Sapota growers are always happy and have few issues. Especially, in South Asia countries the world, due to a large amount of produce each year. However, that is not the farmers of the Pomegranate, Mango, Custard apple, Strawberry and Sapota have some issues with the largest producer of Pomegranate, Mango and Custard apple, Etc. i.e., Satara district, Maharashtra, India. (Gholap, 2023).

1. Natural Hazards

Growers of Pomegranate (90 percent), Mango (85.71 percent), Custard apple (58.18 percent), Strawberry (88.89 percent) and Sapota (61.82 percent sample) in the Satara district are also facing natural calamities. (Table 1). Producers are facing the problem of unpredictable rainfall. Its uncertain start and offset disrupt the out-of-treatment calendar, affecting production, quality and marketing processes.

Due to the dramatic rise in temperature in the Satara district, the fruits are exposed to sunlight, making Pusat and Aril black. This reduces the quality and yield of fruit peat, while cracking occurs due to a sudden drop in temperature. This type of problem is facing growers of Pomegranate (76.25 percent), Mango (51.42 percent), Custard apple (83.63 percent), Strawberry (90 percent) and Sapota (45.45 percent) (Table 1).

Occasionally heavy rains affect the flowering of trees, increasing the humidity in the climate. Such a humid climate increases the incidence of many pests, insects and diseases. Growers of Pomegranate (36.25 percent), Mango (57.14 percent), Custard apple (43.63 percent), Strawberry (95.55 percent) and Sapota (29.09 percent) had to face the problem of excess rainfall during outdoor treatment. Outcomes were lower compared to the high cost of treatment. (Table 1).

Cyclones in the Bay of Bengal and the Indian Ocean cause regular rainfall in the study area. Hurricane Rain in this area November, mid-December, sometimes only clouds and fog. Cloudy and overly humid weather causes moisture in the study area. Although such foggy, humid weather only lasts one day, it severely affects fruit production and quality. During such a short time, many bacteria, diseases and fungi develop and, in some cases, crop production fails. Growers of Pomegranate (47.5 percent), Mango (38.57 percent), Custard apple (47.27 percent), Strawberry (56.67 percent) and Sapota (34.54 percent) are facing these problems. (Table 1).

2. Timely farm Operations

The study area found that where labor was involved in various operations, the common problem faced by producers was the unavailability of more labour on time and the availability of labour for even lower efficiency. Pomegranate (78.75 percent), Mango (98.57 percent), Custard apple (81.82 percent), Strawberry (78.89 percent) and Sapota (96.36 percent) farmers have expressed the problem of unavailability of labour. Pomegranate (87.5 percent), Mango (78.57 percent), Custard apple (62.5 percent), Strawberry (81.11 percent) and Sapota (81.82 percent) farmers are facing high labour costs. (Table 1). Growers of Pomegranate (65 percent), Mango (72.85 percent), Custard apple (76.36 percent), Strawberry (92.22 percent) and Sapota (90.91 percent) face more water scarcity in summer! Irregularity is another severe problem facing sample growers of seasonal Pomegranate (86.25 percent), Mango (85.71 percent), Custard apple (89.09 percent), Strawberry (94.44 percent) and Sapota (92.72 percent) power supply. Irregular electricity supply disrupts water supplying and adversely affects fruit production and quality. Some medium and large farmers use electricity for spraying pesticides and insecticides. Its erratic supply makes it difficult to spread at the required time, affecting fruit production and quality. (Table 1).

3. Miss Management

Pomegranate (11.25 percent), Mango (5.71 percent), Custard apple (14.54 percent), Strawberry (11.11 percent) and Sapota (9.09 percent) farmers are facing the problem of over-irrigation. The study area that Pomegranate (48.75 percent), Mango (45.71 percent), Custard apple (38.18 percent), Strawberry (13.33 percent) and Sapota (34.54 percent) farmers did not have technical knowledge of fruit cultivation. (Table 1).

Table 1
PROBLEMS OF MAJOR FRUIT CULTIVATION

Sr. No.	Problems of major fruit cultivation	Pomegranate		Mango		Custard Apple		Strawberry		Sapota	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1.	Natural Hazards										
	i) Uncertain rainfall	72	90	60	85.71	32	58.18	80	88.89	34	61.82
	ii) Extreme rise and fall in temperature	61	76.25	36	51.42	46	83.63	81	90	25	45.45
	iii) Foggy weather	38	47.5	27	38.57	26	47.27	51	56.67	19	34.54
	iv) Heavy rainfall	29	36.25	40	57.14	24	43.63	86	95.55	16	29.09
2.	Timely farm Operations										
	i) Non-availability of labourers in time	63	78.75	69	98.57	45	81.82	71	78.89	53	96.36
	ii) High charges of labourer with less efficiency	70	87.5	55	78.57	50	62.5	73	81.11	45	81.82
	iii) Shortage of water-supply	52	65	51	72.85	42	76.36	83	92.22	50	90.91
	iv) Irregular electricity supply	69	86.25	60	85.71	49	89.09	85	94.44	51	92.72
3.	Miss Management										
	i) Over irrigation	09	11.25	04	5.71	08	14.54	10	11.11	05	9.09
	ii) Lack of Tech knowledge	39	48.75	32	45.71	21	38.18	12	13.33	19	34.54
4.	Use of Fertilizer										
	Organic	4	5.00	2	2.86	4	7.27	2	2.22	1	1.81
	Inorganic	76	95.00	68	97.14	51	92.72	88	97.78	54	98.18
5.	Plant Protection										
	i) High, cost of pesticides	79	98.75	60	85.71	50	90.1	79	87.78	45	81.81
	ii) Inadequacy of finance	36	45	56	80	36	65.45	80	88.89	20	36.36
	iii) Inferior quality of pesticides	42	52.5	42	60	41	74.54	81	90	30	54.54

Source: Based on field work.

4. Fertilizer

A) Pomegranate - Out of 80 respondents, 76 (95.00 percent) respondent farmers use inorganic fertilizer in Pomegranate cultivation. It was observed that only 4 respondent farmers (5 percent) use organic fertilizer in Pomegranate cultivation. There was a minor use of organic fertilizers in the study area. The study area has a high use of inorganic fertilizer in Pomegranate cultivation. Excessive use of inorganic fertilizer will affect the plant and its soil and make the soil barren, which will affect the Pomegranate crop. **(Table 1).**

B) Mango - Out of 70 respondents, 68 respondents (97.14 percent) use inorganic fertilizers for Mango cultivation. It was found that only 02 responding farmers (2.86 percent) use organic fertilizers for Mango cultivation. In the field of study, the use of organic fertilizers is low, and inorganic fertilizers in Mango cultivation have been found in the field of study. This affects human health, the land and the crop yields **(Table 1).**

C) Custard apple - Out of 55 respondent farmers, 51 respondent farmers (92.23 percent) used inorganic fertilizer in Custard apple cultivation. Only 04 respondent farmers observe (7.27 percent) use organic fertilizer in Custard apple cultivation. In the study area, there is minor use of organic fertilizers and high use of inorganic fertilizer in Custard apple cultivation is observed in the study area. The use of fertilizers for high in order to yield Custard apple cultivation. This affects human health, the land and the crop yields. **(Table 1).**

D) Strawberry - 90 samples were taken from Strawberry cultivation farmers., Out of 90 respondent farmers, 88 respondents (97.78 percent) use inorganic fertilizer in Strawberry cultivation. It is observed that only 02 respondent farmers (2.22 percent) use organic fertilizer in Strawberry cultivation. In Mahabaleshwar, because of heavy rainfall, fertilizers throws out of the bed. So, the number of fertilizers increased in beds to cover the loss. Some organic and chemical fertilizers assimilate by digging a 2.5 cm hole before covering. Soluble fertilizers are provided to crops by dripper irrigation. Plants are improved by some tonic and ripen the fruit by spray but this affects human health, the land and the crop yields. **(Table 1).**

E) Sapota - 55 samples were taken from Sapota cultivation farmers. Out of 55 respondent farmers, 54 respondent farmers (98.18 percent) use inorganic fertilizer in Sapota cultivation. It is observed that only 01 respondent farmers (1.81 percent) use organic fertilizer in Sapota cultivation. In the study area, there is the minor use of organic fertilizers. The study area has a high use of inorganic fertilizer in Sapota cultivation. but this affects human health, the land and the crop yields. **(Table 1).**

5. Plant Protection: While protecting the seedlings, growers are facing high-cost pesticides from Pomegranate (98.75 percent), Mango (85.71 percent), Custard apple (90.1 percent), Strawberry (87.78 percent) and Sapota (81.81 percent). Pomegranate (45 percent), Mango (80 percent), Custard apple (65.45 percent), Strawberry (88.89 percent) and Sapota (36.36 percent) sample farmers are facing a shortage of funds. Samples like Pomegranate (52.5 percent), Mango (60 percent), Custard apple (74.54 percent), Strawberry (90 percent) and Sapota (54.54 percent) are facing the problem of poor quality of pesticides. **(Table 1).** According to many growers and agronomists, the nature of plant protection operations is almost indispensable for the protection of vines and other fruit trees. According to him, most fruit trees suffer from airborne bacteria and diseases. However, in many ways, Pomegranates, Mango, Custard apples, strawberries and Sapotas are adversely affected by airborne and soil pests and diseases. Therefore, proper and timely plant protection must be strictly treated. In addition, proper fertilizer, water and spray are required. Any mistake in this regard adversely affects plant growth, yield, fruit quality and plant life. Such mismanagement of orchards has created many problems in this practice. **(Table 1).**

6. The nutrition requirements of Pomegranate, Mango, Custard apple, Strawberry and Sapota trees in the study area vary by variety, orchard age and soil type. Improper fertilizer application leads to imbalanced nutrient management.

7. Pomegranate, Mango, Custard apple, Strawberry and Sapota grower's production issues regarding inadequate fertilizer application and plant protection instruction labour costs are high. Waiting a long time for a return is inconvenient, storage facilities are insufficient, and

there is a tremendous high marketing cost. There is no insurance for Pomegranate, Mango, Custard apple, Strawberry and Sapota. These fruits have irregular market demand.

8. Strawberry harvests and field crops succumb to fungal infections, lowering the berry's shelf life, according to growers in and around Mahableshwar, Wai, Jaoli and Koregoan tahsils.

9. Pomegranate, Mango, Custard apple, Strawberry and Sapota cultivation in the study area face numerous challenges, including limited land holding, a lack of quality seeding or saplings, large post-harvest losses due to lack of infrastructure, the threat of middlemen, a lack of support from concerned nodal bodies and a lack of coordinated efforts, lack of profitability and so on.

Conclusion

Geographical and socio-economic fruit cultivation problems along with infrastructure are found in the study area. These fruit cultivation problems are obstacles to the development of rural areas. Providing the basic and necessary facilities to the fruit farmers in the villages can be of great help in transforming them into smart agriculture. The backwardness of fruit-growing villages is not only due to physical problems but also ignorance and ignorance. If proper schemes and campaigns are implemented with enthusiasm by the public and the government, the above problems of fruit cultivation can definitely be overcome.

Reference

1. Bachhav, N. B. (2013): Pomegranate Cultivation in Nashik District: A Geographical Analysis". The Published thesis of North Maharashtra University, Jalgaon.
2. Gholap, V. S. (2023), "Problems and prospects of fruit cultivation in Satara district: A Geographical analysis", The unpublished thesis of Dept. of Geography, Shivaji University, Kolhapur.
3. Jadhav, M. T. (2013): "A Study of Cultivation and Marketing of Strawberry in Satara District". The Published thesis of Savitribai Phule University, Pune.
4. Phule, B. R. (2002): "Pomegranate Cultivation in Solapur district: A Geo-Economical Analysis". The Published thesis of Shivaji University, Kolhapur.
5. Salukhe R. R. (2022), Problems of villages in drought prone area of Sangli district: A Geographical Study, International Journal of Advance and Applied Research (IJAAR), ISSN-2347-7075, p.p.301-311.
6. Singh Jasbir, (1976): An Agricultural of hariyana, Vishal Publication, krukshertra, (Harayana India).