

Adoption Behavior of Orange Producer under National Horticulture Mission (NHM) at Shajapur district of M.P.

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Abstract

In Madhya Pradesh, near about 25 percentage area is under orange crop in Shajapur district. In Shajapur block, the area under orange crop is 22052 ha with production of 28514 tonnes (CRIDA), under National Horticulture Mission (NHM). This area has been selected because of high demand of orange and its diversified nature. It is a cash crop and provides motivational features to the farmers to grow long term crop. Oranges are rich in potassium, an electrolyte mineral that controls the heart function, controls blood pressure, prevent cancer and anti-inflammatory properties. In light of the above facts, the present study entitled as “Adoption Behavior of Orange Producer under National Horticulture Mission (NHM) at Shajapur district of M.P” with 120 orange growers from Shajapur district. It was observed that the mean adoption behavior score was highest in practice of improved variety followed by planting material, chemical fertilizer, method of Irrigation, plant distance, selection of land; inter cropping, weed management, planting season, insect and pest management, disease management, market management.

Keywords — Adoption Behavior, Orange Producer, National Horticulture Mission (NHM)

I. INTRODUCTION

One of the most widely favoured of the world's fruits, the orange, sweet orange was for many years known as *Citrus aurantium* var. *sinensis* L. It was considered to be a form of the sour orange, assumed to have originated in southern

China, North eastern India. The Mandarin orange belongs to Rutaceae family and it is very important fruit crop due to rich source of vitamin C. In the world it is cultivated over an area of 7.9 million ha with a production of about 3.84 million metric tonnes of fruit.

In India, orange producing states are Maharashtra, Madhya Pradesh, Assam, Odisha, W.B., and Nagaland. The total area under orange fruit is 324 thousand ha with the production of 3255 thousand million tonnes and productivity of 10mt/ha. Maharashtra is leading state in orange production, whereas M.P. being the second. These interesting facts came to fore in the recently released the report adds that State is at second position in orange production. Orange farming is done on maximum area 24.3 % in M.P. Madhya Pradesh is one of the leading states of orange growing after Maharashtra in our country which has shared 38 thousand ha with production of 684.9 thousand million tonnes and its productivity 18 mt/ha. Major varieties of orange cultivated in Madhya Pradesh are Nagpur Santra, Coorg Santra, Khasi Santra, Mudkhed, Seedless-182 and Kinnow Mandarin and Jaffa etc.

II. Objective

1. To study the adoption behaviour of improved orange production technology under NHM.

III. Review of Literature

Harish and Manjunatha (2011) revealed from their study that majority of crossandra farmers fall under the high adoption category

(37.50%) followed by low (34.17%) and (28.33%) medium category.

Vijaya and Thakarar (2011) revealed that 55.00 per cent of the onion producers were medium adopters of post harvest techniques of onion. A considerably less per cent of onion growers (25.00%) and (20.00%) in low and high adoption group respectively.

Badgujar (2014) revealed from his study on banana that majority of respondents (72.00%) belonged to medium level of adoption of package and practices of banana crop followed by (12.00%) under low and (16.00%) under high category of respondents.

Sandeep et al. (2014) indicated from the study that majority (74.17%) of the respondents were found to have medium level of adoption followed by (10.00%) of the respondents which fall under the category of high level of adoption, where as 15.83 per cent of the respondents were found having low level of adoption.

Ramesh et al. (2017) studied NHM scheme Impact on Beneficiaries of Horticultural farmers, karnataka. The study highlighted that the implementation of NHM scheme in Karnataka has brought about medium level impact among 67.68 per cent of the beneficiaries while it has a low and high level of impact among 16.67 and 15.00 per cent of the beneficiaries.

IV. Material and Method

For fulfilment of these objectives, the study was conducted in Shajapur district, where programme conducted by NHM during 2016-17. One hundred twenty orange producers selected from six randomly selected villages Bamori, Panwadi, Sunera, Bugor, Khanpur, Mangrola were selected through simple random sampling method for the purpose of study. The list of orange producers was provided by NHM. The interview schedule was thoroughly discussed with the members of advisory committee and scientists of concerned discipline. Pre-testing of the interview schedule served as an additional check for improving the instrument. An interview schedule was designed for collecting the relevant information of selected variable. The data were collected personally with the help of pre tested interview schedule.

V. Result and Discussion

Adoption behaviour of improved orange production technology under NHM

Adoption in this study refers to use of improved practices of orange cultivation to the farmers in the field. The adoption behavior of selected orange producers was measured related to improved practices of orange cultivation and presented in Table -1

S. No	Technological Practices	Extent of adoption behaviour			Total score	Mean score	Rank
		complete	Partial	Least			
1	Improved varieties	88	22	10	198	1.65	I
2	Selection of land	75	29	18	179	1.49	VI
3	Plant distance	78	25	17	181	1.50	V
4	Planting material	85	24	11	194	1.61	II
5	Planting season	46	51	23	143	1.19	IX
6.	Mulching	23	37	60	83	0.69	XIV
7.	Weed management	60	48	12	168	1.40	VIII
8.	Method of Irrigation	80	26	14	186	1.55	IV
9	Inter cropping	73	30	17	176	1.46	VII
10	Chemical fertilizer	82	28	10	192	1.60	III
11	Insect and pest management	43	49	28	135	1.12	X
12	Disease management	38	44	38	120	1.00	XI
13	Harvesting	32	38	50	102	0.85	XII
14	Market Management	27	32	61	86	0.71	XIII

Adoption in this study refers to use of improved practices of orange cultivation by the farmers in the field. The adoption behavior of selected orange producers was assessed related to improved practices of orange cultivation. It was observed that the mean adoption behavior score was the highest in practice of improved varieties and planting material. And the mean adoption behavior score was minimum in practice of use of chemical fertilizer, method of Irrigation, plant distance, and selection of land, inter cropping, weed management, planting season, insect and pest management, disease management, market management. It might be the major cause for low production because these technological components are indispensable for transcendent production. Hence, the extension agencies should undertake the programmes to increase the adoption level of

orange production technology. This finding is supported by the Meena (2012) and Mahnata (2014).

Table 2: Distribution of the respondents according to their overall adoption behavior

S. No.	Adoption behaviour	No. of respondents	Percentage
1.	Low	57	47.50
2.	Medium	35	29.17
3.	High	28	23.33
	Total	120	100.00

Overall adoption behaviour about the orange production technology under NHM

Higher percentage of the respondents 47.50 per cent showed low adoption behaviour, 23.33 per cent of respondents indicated high adoption behaviour, where as 29.17 per cent depicted medium adoption behaviour of orange producers. The overall adoption behavior was found to be medium and low level adoption under NHM. It could be revealed from this result that orange producers do not bear good adoption behavior about the improved production technology. NHM helps the farmer to get knowledge of orange production technology thus farmers showed their interest to increase the productivity of orange crop and get medium to high income. This finding finds support with the work of Venkatesh et al. (2013), Bhandare et al. (2013) and Badgujar (2014).

VI. Conclusion

It was observed that the mean adoption behavior score was highest in practice of improved variety followed by planting material, chemical fertilizer, method of Irrigation, plant distance, selection of land; inter cropping, weed management, planting season, insect and pest management, disease management, market management.

VIII. Reference

[1] Badgujar, C.D. (2014). Knowledge and adoption of the recommended package and practices of Banana crop. Journal of Krishi Vigyan, 2(2):85-87.
 [2] Bhandare, C.L., Kamble, V.B. and Sidam, V.N. (2013). Adoption of recommended Package of practices of sweet orange growers. Agriculture Update. 8(1 & 2):265-270.
 [3] Harish, L and Manjunatha, B.N. (2011). Adoption level of recommended crossandra cultivation practices by the farmers. Mysore Journal of Agriculture Sciences, 45(3); 665-660.

[4] Lanjewa, R.R., Gohad, V.V., Veer, M.D. and Barse, K.N. (2011). Impact of National Horticulture Mission on beneficiaries. Advance Research Journal of Social sciences. 2(2):178-180.
 [5] Mahanta, D.K. and Konwar, Anjumoni (2014), "Production and Marketing of Orange in Assam A Study on Doomdooma Region of Tinsukia District" Journal of Agriculture and Life Sciences Vol. 1, (1) pp.82-90
 [6] Meena, R.R., Jitendra, Singh. Verma, A.K. and Bhim, Singh. (2012). Adoption level of practices in growing and trading of mandarin orange in Jhalawar, Rajasthan. International Journal of Agricultural and Statistical Sciences. 8(1): 177-183.
 [7] Ramesh, G.B., Loksha, H. and Vijaya, B.Wali (2017). Studied NHM scheme Impact on Beneficiaries of Horticultural Farmers in Karnataka-An Economic Analysis. Int. J. Pure App. Biosci 5(6):pp. 990-995.
 [8] Sandeep, Yadav., Prajapati, R.R. and Prajapati, M.R. (2014). Knowledge and adoption of tomato growers about improved tomato production technology. Gujarat Journal of Extension Education. 25(2): 172-174
 [9] Venkatesh, N., Hubballi, Puttaiah. and Sunil, E.T. (2013). Adoption of cashew production practices of coastal Karnataka, Environment and Ecology. 33(1): 88-91
 [10] Vijaya, Postriya and Thakarar, D.M. (2011). Extent of Adoption of onion growers about Post harvest technology Gujarat. Journal of Extension Education .22(1):29-30.