

Developmental disability intensity index of orange growers

ANITA S. DESHMUKH, K.P. SINGH, SONIA TAMGADGE AND C.D. THIPSE

ABSTRACT

The present investigation entitled "Developmental disability of orange growers in Maharashtra". Amravati district were selected for the present study. The general objectives to study developmental disability intensity of orange growers and carry out the resource analysis of orange growers. It was found that on an average 40.50 per cent of orange growers were belonged to middle age group (36 to 50 years), 32.75 per cent orange growers were having secondary education level and 35 per cent were from semi medium land holding (2.01 to 4.00 ha). The average area under orange growers was 26.50 per cent 62.75 per cent and 10.75 per cent per ha. Of orange growers in case of small, medium high herd size, respectively. The annual income of the orange growers an average was 28.25 per cent (Rs. 50,001 to Rs. 1, 00,000) and medium (9.34 to 18.66) Socio economic status 55.00 per cent than medium (9 to 16) scientific orientation was 49.50 per cent economic motivation of the orange growers was 52.75 per cent in medium category and only 51.75 per cent orange growers having high (Above 16) risk preference. The knowledge level of the orange growers according to their practice wise knowledge in this respondents had knowledge about recommended per cent of lime concentration (30.00%), Recommended hormone use for fruit dropping (46.25%), Recommended percentage of hormone for control of fruit dropping (48.75%), Pit depth (55.50%), Pruning method (56.25%), Fertilizers recommendation (57.00%), Recommended tillage operation at the time of fruiting stage (57.75%) revealed that most of the respondents (67.00%) had high knowledge about recommended orange cultivation practices, followed by 30.00 per cent of the respondents with medium knowledge. However only 3.00 per cent of the respondents belong to the category of low-level knowledge.

KEY WORDS :Disability, Intensity index, Orange growers

Deshmukh, Anita S., Singh, K.P., Tamgadge, Sonia and Thipse, C.D. (2010). Developmental disability intensity index of orange growers, *Internat. J. Forestry and Crop Improv.*, 1 (2) : 131-133.

INTRODUCTION

Nagpur Mandarin orange is one of the most important fruits of Maharashtra state. The area production and yield per hectare of orange in Maharashtra during the year 2000-01 were 78.503 hectares, 7,64,533 tones and 9.731 tones/ha, respectively. The important orange growing districts in Maharashtra are Nagpur, Amravati, Wardha, Yavatmal and Akola. In Amravati District orange cultivation covers an area of 67057.00 hectares with production of 288000 tones and productivity of 9000 tones/ha during 2006-07.

This shows that the average yield of orange in Amravati district is 8.0512 tones/ ha. Which is obviously that average yield of Maharashtra state (9.731 tones/ha) In spite of the high genetic potential in the crop and availability of latest technology the productivity of orange

remained at 8.0512 tones/ha probably, it may be because of various production constraints like non availability of inputs and their exorbitant prices (Chikhale, 1993 and Bhople *et al.*, 1996) lack of knowledge and skill (Gomase, 1997) and irrigation constraints (Kadam, 1999). In this context the present study was undertaken to identify the constraints encountered by orange growers during use of various reasons for decline of orange cultivation.

MATERIALS AND METHODS

The present research investigation was carried out in Amravati district of Vidarbha region of Maharashtra State. A list of orange growers of orange cultivators obtained from taluka Agriculture officers of each Panchayat Samiti. In all, there were 100 orange growers were selected from each panchayat samiti total 400 orange growers were selected for the present investigation. Amravati district was having 14 talukas. Amongst those, Worud (15025 ha), Morshi (1, 0996 ha), Chandur Bazar (7436 ha) and Achalpur (6729 ha.) talukas have highest area under orange cultivation. So these four talukas was purposively selected. 10 villages from each taluka having highest area under orange cultivation were purposively

Correspondence to:

ANITA S. DESHMUKH, Department of Extension Education, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, AKOLA (M.S.) INDIA

Authors' affiliations:

K.P. SINGH AND C.D. THIPSE, Department of Plant Protection, KriSVhi Vigyan Kendra, Durgapur, AMRAVATI (M.S.) INDIA
SONIYA TAMGADGE, MSSCA, Seed Testing Laboratory, AKOLA (M.S.) INDIA

Table 1: Distributions of the respondents according to their developmental disability intensity index of orange growers

Sr. No.	Particulars	N. S.	%	M.S.	%	S	%	L.S.	%
1.	Farming system								
	Scarcity of water for irrigation	75	18.57	00	0.00	00	0.00	325	81.25
	Improper method of irrigation	144	36.00	00	0.00	29	7.25	227	56.75
	No proper and timely cultural practices	121	30.25	00	0.00	130	32.50	149	37.25
	Non availability of disease free planting material	74	18.50	00	0.00	28	7.00	298	74.50
	No information about nutrient requirement of orchard	95	23.75	00	0.00	27	6.75	278	69.50
	Poorwater management practices adopted	117	29.25	00	0.00	25	6.25	258	64.50
	Excess use of water	95	23.75	00	0.00	28	7.00	277	69.25
	Wide range of inter crop affected the quality of fruits	89	22.25	00	0.00	286	71.50	25	6.25
	Lack of knowledge about soil conservation technique	126	31.50	00	0.00	97	24.25	177	44.25
	Cultivation on unsuitable soil	109	27.25	00	0.00	261	65.25	0	0.00
	No proper management of insect pest and disease	97	24.25	30	7.50	277	69.25	26	6.50
	Improper management of training and pruning of trees	87	21.75	00	0.00	54	13.50	228	57.00
	Selection on improper root stock	64	16.00	31	7.75	239	59.75	66	16.50
2.	Ecological system								
	Irregular bearing	108	27.00	24	6.00	37	9.25	231	57.75
	Epidemic of pest like citrus black fly, kolsi psylla, mites heavy infestation of orange orchard	69	17.25	36	9.00	238	59.50	57	14.25
	Heavy infestation of Phytophthora, root rot, causing fungus in nurseries grown up orchard	82	20.50	2	.050	73	18.25	243	60.75
	Nutrients are not available in required proportion of soil	62	15.50	33	8.25	247	61.75	58	14.50
	Type of soil is not good	72	18.00	00	0.00	94	23.50	234	58.50
3.	Social system in marketing								
	Lack of proper transportation facilities	75	18.75	27	6.75	296	74.00	2	.050
	High commission charges	101	25.25	0	0.00	239	59.75	60	15.00
	Lack of security of produce in the market	84	21.00	17	4.25	272	68.00	27	6.75
	Lack of market information	100	25.00	15	3.75	244	61.00	41	10.25
	Cut the payment of farmers in the even of loss of fruit due to dropping	93	23.25	25	6.25	231	57.75	51	12.75
	Non availability of storage units	88	22.00	26	6.50	251	62.75	35	8.75
	Contractor of middle man purchase fruits at low prices because the orchard is away from the main road	98	24.50	21	5.25	251	62.75	30	7.50
	Lack of knowledge about grading	92	23.00	36	9.00	246	61.50	26	6.50
	Breaking contract if the orange prices slash down	70	17.50	207	51.75	81	20.25	42	10.50
	Don't know method of waxing	91	22.75	27	6.75	243	60.75	39	9.75
	Costly packing material and non availability of skill labour	89	22.25	191	47.75	75	18.75	45	11.25
	Lack of knowledge of marketing procedures	92	23.00	182	45.50	89	22.25	37	9.25
	Due to lack of processing units fruits are not sold in proper way	108	27.00	172	43.00	46	11.50	74	18.50
	High cost of transportation for sale in the district market	78	19.50	206	51.50	76	19.00	40	10.00
4.	Quality control system								
	No policy support and data building aspects of production, processing and marketing	90	22.50	47	11.75	244	61.00	19	4.75
	Lack of scientific grading and packing facilities	94	23.50	187	46.75	74	18.50	45	11.25
	Improper handling without any post harvesting treatment leading to reduce shelf life of fruits	103	25.75	6	1.50	254	63.50	37	9.25
	Lack of facilities for bulk and consumer packing of fresh fruit and juices	76	19.00	210	52.50	60	15.00	54	13.50

N.S. – No Severe, M.S. – Most Severe, S. – Severe L.S. – Least Severe

selected. 400 respondents from 40 villages in four talukas were selected and equal number of random sampling method was used. The data were gathered through personal interview with the selected orange growers with the help of an interview schedules in the orange orchards. The independent variables were selected age, education, family size, landholding, annual income, size of orchard, socio economic status, innovativeness, risk preference etc. The statistical tools namely mean, standard deviation, coefficient, of correlation and co-efficient of regression were adapted to test the significantly of the results.

RESULTS AND DISCUSSION

Distribution of the respondents according to their practice wise developmental Disability about recommended orange cultivation are as follow, in case of farming system disability, it was observed that majority of the orange growers were facing scarcity of water for irrigation (81.25%) at high scarcity level. High sever was the disability of non availability of disease free planting material as reported by (74.50%) of the respondent range growers followed by no information about nutrient requirement of orchard (69.50%), excess use of water (69.25%), poor water management practices adopted (64.50%), improper management of training and pruning of trees (57.00%), improper method of irrigation (56.75%), lack of knowledge about soil conservation technique (44.25%) and no proper and timely cultural practices (37.25%). In case of ecological system disability, it was observed that majority of the respondents was nutrient was not available in required proportion of soil (61.75%). Near about half of the respondent (60.75%) of the respondents heavy infestation of phytophthora, root rot causing fungus in nurseries grown up orchards and also epidemic of pest like citrus black fly, kolsi, psylla, mites heavy infestation of orange orchards was high sever(59.50%). Followed by type of soil is not good (58.50%) and irregular bearing (57.75%). In case of social system in marketing system disability, it was revealed that majority of the respondents was found lack of proper transportation facilities (74.00%), and also lack of security of produce in the market (68.00%), Followed by non availability of storage units and contractor of middle man purchase fruits in low prices because the orchard is away from the main road. (62.75%), disability is also due to the lack of knowledge about grading (61.50%), lack of market information (61.00%) and don't know method of waxing (60.75%) and high commission charges (59.75%). In case of social system in marketing disability is also due to reason *i.e.* breaking contract if the orange prices slash down (74.00%), high cost of

transportation for sale in the district market (51.50%), costly packing material and non availability of skill labour (47.75%), lack of knowledge of marketing producers (45.50%) and status symbol for the plantation (43.00%). In case of quality control system disability it was reveal touted that majority of the orange grower were facing improper handling without any post harvesting treatment leading to reduce shelf life of fruits (63.50%) followed by no policy support and data building aspects of production, processing and marketing (61.00%), lack of facilities for bulk and consumer packing of fresh fruit and juices (52.50%) and lack of scientific grading and pacing facilities (49.75%). Distribution of the respondents according to their practice wise developmental Disability about recommended orange cultivation has been furnished in Table 1.

Distribution of the respondents according to their adoption Table 2 revealed that majority of the respondents (66.75%) had medium (33.34 to 66.66) developmental disability about orange cultivation. Followed by near about one fourth of the respondents (24.25%) had high (above 66.67) developmental disability about orange cultivation.

Table 2 : Distribution of the respondents according to their Developmental Disability

Sr. No.	Developmental disability	Respondents (N=400)	
		Frequency	Percentage
1.	Low (Up to 33)	36	9.00
2.	Medium (33.34 to 66.66)	267	66.75
3.	High (Above 66.67)	97	24.25
	Total	400	100

While only 9.00 per cent of the respondents had low (up to 33) developmental disability about orange cultivation.

REFERENCES

- Bhople, R.S., Shinde, P.S. and Nimje, V.R. (1996). Production and marketing constraints faced by orange growers. *Maha. J. Ext. Edu.*, **15**: 57-61.
- Chikhale, N.J. (1993). Constraints in adoption of recommended orange cultivation practices. M.Sc. (Ag.) Thesis, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (M.S.).
- Gomase, A.S. (1997). Adoption behaviour of Kagzi lime (*Citrus aurantifoliai Swingle*) growers. M.Sc. (Ag.) Thesis, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (M.S.).
- Kadam, A.L. (1999) Constraints in management of orange orchards faced by firmers. M.Sc. (Ag.) Thesis, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (M.S.).
- Vaishali Sahare (2005): Knowledge and adoption about PDKV Recommended Technologies for control of phytothera in orange. M.Sc. Thesis, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (M.S.).