Int.J.Curr.Microbiol.App.Sci (2020) *9*(12): 3169-3177

International Journal of Current Microbiology and Applied Sciences
ISSN: 2319-7706 **Volume 9 Number 12 (2020)**
Journal homepage: http://www.ijcmas.com

Original Research Article https://doi.org/10.20546/ijcmas.2020.912.377

Profile Characteristics of Acid Lime Growers of Vijayapura District of Karnataka

Megha. M. Nagayyanavar*, P. Bala Hussain Reddy, S. V. Prasad and C. Nagamani

Department of Agricultural Extension, Acharya N G Ranga Agricultural University, S.V. Agricultural College, Tirupati, India

**Corresponding author*

Keywords

Profile characteristics, Acid lime growers, Karnataka

Article Info

Accepted:
22 November 2020
Available Online:
10 December 2020

A B S T R A C T

The study was conducted in Vijayapura district of Karnataka. To study the profile characteristics of acid lime growers, a total 120 respondents were randomly selected and data was collected using a structured interview schedule. The findings of the study revealed that, the respondents were in middle age (36-55 years) group (49.17%), illiterate (35.00%), belong to medium size of family (6-10 members) (52.50%), had small land holding category (42.50%), involved in cultivation + labour (43.33%), medium farming experience (64.17%), had medium level of extension contact (69.17%), medium level of social participation (64.17%), mass media exposure (79.17%), medium level of risk preference (63.33%), economic motivation (40.84%), achievement motivation (75.00%), management orientation (58.33%), scientific orientation (70.83%) and deferred gratification (54.16%).

Introduction

Acid lime (*Citrus aurantifolia* Swingle) is a remunerative and commercially important citrus fruit crop originated in South-East Asia. Acid lime is also called as Mexican lime, Key lime and Sour lime when it comes to the Indian languages lime has different names like nimma kaya in Telugu, nimbe hannu in Kannada, nimbu in Hindi, elumichaipazham in Tamil and eidilimbu in Marathi. The popular varieties of acid lime are Kagzi lime, Coorg lime, Balaji, Petlur selection 1, Vikram and so on. Commercial cultivation of lime is one of the most profitable and successful businesses due to acid lime demand throughout the year.

The global production of acid lime annually is about 1,72,18,713 tons. If it comes to Indian stance in production of lime or lemon in the world (2017), India ranks 2nd with the production of 23,64,000 tons after Mexico (25,28,174 tons). Acid lime is being cultivated mainly in Gujarat, Andhra Pradesh, Madhya Pradesh, Karnataka, Odisha, Maharashtra, Telangana, Tamil Nadu, Bihar and other states. Vijayapura district of Karnataka has an acid lime area of 12,168 ha with a production 3,04,142 metric tonnes.

Materials and Methods

In the study, *Ex post facto* research design was followed as the phenomenon had already occurred and the researcher does not have direct control over independent variables because their manifestations have been already occurred.

The Karnataka state was purposively selected. The study was carried out in two taluks of Vijayapur district of Karnataka which were purposively selected, where acid lime area was more. From each taluk, four villages were selected randomly thus making a total of eight villages.

From each of the selected villages, 15 acid lime growers were selected by using simple random sampling technique thus making a total of 120 respondents in Vijayapura district of Karnataka. The data was collected by personal interview method through a structured interview schedule and analyzed by employing suitable statistical methods. Fifteen independent variables were identified for the study.

Results and Discussion

Age

A perusal of Table 1 shows that (49.17%) of the respondents belonged to middle age category followed by young (25.83%) and old age (25.00%) category respectively.

The middle aged farmers were more enthusiastic had more knowledge and experience regarding cultivation aspects of acid lime. Another likely reason might be that the parental occupation must have been shouldered by the middle age, as young people were unable to bear responsibility and elderly people might have shouldered off their occupation to descendants and now only provide family members with guidance and counseling. This finding is in line with the findings of Sorate (2011) and Gangappagouda (2012).

Education

It is clear that from Table 1 that, majority (35.00%) of the respondents were illiterate followed by high school (33.33%) level, primary (16.67%), graduate (9.17%) and only 5.83 per cent of the respondents educated up to middle school level.

The key cause of above pattern could be the rural social environment. Since rural people were still historically bound and usually do not choose to send their children to colleges and to assist in farm and household activities with the exception of their parents.

The above findings were in line with that of Kulakarni and Jahagirdar (2015) and Lekhanath (2016).

Family size

It is apparent from Table 1 that majority *i.e.* 52.50 per cent respondents had medium size of the family (6 to 10 members) followed by small size of family (up to 5 members) with 40.00 per cent. However, rest of 7.5 per cent respondents had big size of family (more than 10 members).

This might be due to their awareness of the rising cost of living and the difficulties or problems of sustaining a large family. In addition, as the cost of living rises day by day, respondents may have found it advantageous to have a medium-sized family to lead comfortable lives.

The above finding was in accordance with the studies of Dhruw (2008) and Parushni (2017).

Size of land holding

It is vivid from the Table 1 that majority *i.e.* 42.50 percent of famers belonged to small holding category, followed by 25.00 percent of marginal land holding category farmers, 23.33 per cent semi-medium category and 9.17 per cent farmers belonged to medium land holding category and none of them were big farmers.

The reason for this might be fragmentation of land holdings due to proneness towards nuclear family approach might have resulted in low land holdings among half of the farmers. On the other side, the remaining farmers might be maintaining their farms duly taking up agriculture as their main source of income and residing in the villages.

Similar types of findings were reported by Ganagappagouda (2012), Nayak (2014) and Ramukumar (2015).

Occupation

It is depicted that maximum respondents (43.33%) were involved in cultivation+ labour, followed by 40.00 percent were engaged in cultivation, 11.67 per cent were involved in cultivation + business and 5.00 per cent were involved in cultivation + caste occupation.

The probable reason might be that acid lime cultivation being primary source of income and requires more care and attention at the establishment stage and the acid lime growers need to spend more time in management of the crop in the initial period of establishment. Once established successfully, the growers will find free time and hence prefer to go for labour for other farmers. These findings are in line with the findings of Dhruw (2008) and Akshay (2018).

Farming experience

An overview indicate that majority of the farmers were classified under medium farming experience (64.17%), followed by high (19.17%) and low (16.66%) farming experience in acid lime cultivation.

Farming is the life blood of the rural people. Majority of them were depending on agriculture as their main source of livelihood. As a part of their life, they might be continuing agriculture as the primary source of income and gained high farming experience. Experience in acid lime cultivation is an important variable for decision making and adoption of new technology.

These findings are in line with the findings of the Madhu (2010) Sanjota (2014) and Lekhanath (2016).

Extension contact

It is observed from the Table 1 that majority (69.17%) of the respondents had medium extension contact followed by low (20.83%) and high (10.00%) levels of extension contact.

The possible reason might be due to the fact that majority of the farmers depending on input dealers as they were purchasing inputs on credit basis.

On the other side, progressive farmers with higher educational qualification might be approaching specialists in the department of horticulture for diagnosis and suitable recommendations to the location specific problems in acid lime cultivation.

The results are in line with the findings of Mahatab (2010), Chahande (2012), Pawar (2015) and Kanchan (2016).

Table.1 Distribution of acid lime growers according to their profile characteristics (n=120)

S. No.	Category	Frequency (f)	Percentage (%)	Mean	SD
I	**Age**				
1.	Young age (35 and below)	31	25.83	-	-
2.	Middle age (36 -55 years)	59	49.17		
3.	Old age (above 56 years)	30	25.00		
II	**Education**				
1.	Illiterate	42	35.00	-	-
2.	Primary	20	16.67		
3.	Middle	07	5.83		
4.	High school	40	33.33		
5.	Graduate and above	11	9.17		
III	**Family size**				
1.	Small (up to 5 members)	48	40.00	-	-
2.	Medium (6 to 10 members)	63	52.50		
3.	Big (> 10 members)	9	7.50		
IV	**Size of land holding**				
1.	Marginal farmers (Up to 2.5 acres)	30	25.00	-	-
2.	Small farmers (2.5 to 5 acres)	51	42.50		
3.	Semi-medium farmers (5 to 10 acres)	28	23.33		
4.	Medium farmers (10 to 25 acres)	11	9.17	-	-
5.	Large (Above 25 acres)	0	0		
V	**Occupation**				
1.	Cultivation	48	40.00	-	-
2.	Cultivation +labour	52	43.33		
3.	Cultivation + caste occupation	6	5.00		
4.	Cultivation + business	14	11.67		
VI	**Farming experience**				
1.	Low	20	16.66	29.83	14.81
2.	Medium	77	64.17		
3.	High	23	19.17		
VII	**Extension contact**				
1.	Low	25	20.83	5.96	1.80
2.	Medium	83	69.17		
3.	High	12	10.00		
VIII	**Social participation**				
1.	Low	35	29.16	1.71	0.67
2.	Medium	77	64.17		
3.	High	8	6.67		
IX	**Mass media exposure**				
1.	Low	13	10.83	8.37	4.06
2.	Medium	95	79.17		

3.	High	12	10.00		
X	**Risk preference**				
1.	Low	14	11.67	26.67	1.19
2.	Medium	76	63.33		
3.	High	30	25.00		
XI	**Economic motivation**				
1.	Low	37	30.83	26.99	0.89
2.	Medium	49	40.84		
3.	High	30	25.00		
XII	**Achievement motivation**				
1.	Low	16	13.33	28.85	1.38
2.	Medium	90	75.00		
3.	High	14	11.67		
XIII	**Management orientation**				
1.	Low	20	16.67	50.55	2.30
2.	Medium	70	58.33		
3.	High	30	25.00		
XIV	**Scientific orientation**				
1.	Low	9	7.50	25.70	1.14
2.	Medium	85	70.83		
3.	High	26	21.67		
XV	**Deferred gratification**				
1.	Low	29	24.17	30.52	1.49
2.	Medium	65	54.16		
3.	High	26	21.67		

Social participation

It is depicted from the Table 1 that majority of the respondents (64.17%) had medium level of social participation followed by low (29.16%) and high (6.67%) levels of social participation.

Majority of the respondents falls under medium social participation followed by low social participation. In certain villages, service cooperative society, citrus growers association etc were also working and majority of respondents of those villages were members of it. Further, some of the farmers expressed that they hardly get any time to participate in different organizational activities and availability of information related to income generation activities from the different local organization was less resulting in low social participation.

Similar findings were observed in the studies of Mahatab (2010), Ashok (2012) and Sriharinarayana (2013).

Mass media exposure

It is transparent from the Table 1 that, majority (79.17%) of the respondents were having medium level of mass media exposure followed by low (10.83) and high (10.00) levels of mass media exposure.

Recent technologies might have been motivated to utilize different mass media for different technological interventions. The access of different social media viz., television, radio, mobile apps with internet facility, farm publications, Kisan melas might have significantly influences the famers in creating awareness and acquisition of knowledge for better farm management. On

the other side, illiterate farmers and farmers with low ICT literacy might be poor in their mass media exposure.

The findings get support from the studies of Patel (2011), Ashok (2012), Sanjota (2014) and Rahul (2016).

Risk preference

Risk preference was a popular characteristic of an individual farmer especially in India where farming is considered as gambling with nature. This refers to the risk bearing capacity of farmers in accepting and courage to face problems in adopting the new technologies. Majority (63.33%) of the acid lime growers had medium risk orientation followed by high (25.00%) and low (11.67%) levels of risk preferences.

It can be inferred that great majority (88.33%) of the acid lime growers had medium to high level of risk preference. It means that farmers with a medium to high level of mind for taking calculative risk were more interested in managing and implementing the recommended technology for the production of acid lime.

This finding is in line with the findings of Sorate (2011) and Ramukumar (2015).

Economic motivation

It is observed from the Table 1 that majority 40.84 per cent of the respondents were grouped under medium level of economic motivation followed by low (30.83%) and high (28.33%) levels of economic motivation.

From the above result, it can be said that majority (71.67%) of the acid lime growers had low to medium level of economic motivation. This might be because acid lime growers treated acid lime as a more remunerative crop compared to other crops and hence they have not shifted to other crops. Moreover, due to high farming experience in acid lime cultivation, they might have acquired good skills which boost their living conditions.

The findings were in accordance with the findings of study conducted by Madhu (2010), Ashok (2012) and Pawar (2015).

Achievement motivation

Results reveal that majority (75.00%) of the respondents had medium achievement motivation, followed by low (13.33%) and high (11.67%) levels of achievement motivation.

Achievement motivation helps an individual to take right decision and accomplish the tasks in certain direction to achieve the desired results. Majority of the farmers in the study were found to have medium level of achievement motivation because of their risk-taking capability, taking right decision and adopting recommended practices to obtain sustainable yield and achieve higher economic growth.

The findings were in accordance with the findings of Vijayakumar (2001), Kiran *et al.*, (2012) and Hrudayranjan (2013).

Management orientation

It is clearly indicated from the Table 1 that a majority (58.33%) of farmers had medium level of management orientation followed by high (25.00%) and low (16.67%) level of management orientation.

Management is an art and science in handling the situation. The farmers' orientation towards managing their farms might have been influenced by both personal and

environmental factors. Farmers with good knowledge and bright exposure to scientific rationality may have a positive approach towards management, taking up their farm operations in line with environmental factors and achieving success.

The results were in line with the findings of Sreenivasulu (2011) and Sriharinarayana (2013).

Scientific orientation

It is concluded from the Table 1 that majority of the respondents (70.83%) had medium level of scientific orientation followed by high (21.67%) and low (7.50%) level of scientific orientation.

The process of adoption of improved technology needs firm decision by an individual. The scientific orientation, which is a degree to which person is oriented to the use of scientific methods in decision making in relation to adoption behavior plays an important role.

From the above result it can be said that in adopting acid lime cultivation technology, the large majority (92.50%) of acid lime growers had medium to high degree of inclination towards encountering risk and uncertainty.

The findings were in line with the findings of Sidramayya (2013) and Kulakarni and Jahagirdar (2015).

Deferred gratification

It is evident from the Table 1 that 54.16 per cent of the acid lime growers had medium level of deferred gratification followed by low (24.17%) and high (21.67%) level of deferred gratification.

The possible reason for the above might be due to small and marginal farmers with their limited land holding. Because of the medium economic motivation, they could not wait for the anticipated income for their produce. The farmers were selling the produce to the middlemen at the village level itself as they could not afford to take the produce too far away towns to sell at higher price and non availability of the better marketing system.

The findings were in line with the Srinivasareddy (2008), Chinnamnaidu (2012) and Deepa (2019).

In conclusion, it is highly essential for policy makers to understand the profile characteristics of acid lime growers before designing any programme or schemes for their benefit. The success of any intervention of the Government should be need based and adopt bottom up approach and hence due attention needs to be given on socio economic aspects of the beneficiaries for the overall development of the community.

References

Akshay, M. 2018. Study on technological gap among potato growers of Ujjain district (M.P.). *M.Sc. (Ag.) Thesis*. Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur.

Ashok, G. 2012. Knowledge and adoption of System of Rice Intensification (SRI) technology among farmers in Nagapattinam district of Tamil Nadu. *M.Sc. (Ag.) Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad.

Chahande, A.B. 2012. Knowledge and adoption of recommended pigeon pea package of practices by the growers. *M.Sc. (Ag.) Thesis*. Vasantrao Naik Marathwada Krishi Vidyapeeth, Prabhani, Maharashtra (India).

Chinnamnaidu, D. 2012. A Study on farming performance and entrepreneurial

behaviour of sugarcane farmers in north coastal zone of Andhra Pradesh. *Ph.D. Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad.

Deepa, C. 2019. Input utilization pattern of Rice farmers in Nellore district of Andhra Pradesh. *M. Sc. (Ag.) Thesis*. S.V. Agricultural College, India.

Dhruw, K.S. 2008. A study on adoption of recommended maize production technology among the farmers of kanker district of chhattisgarh state. *M.Sc. (Ag.) Thesis.* Indira Gandhi Krishi Vishwavidyalaya, Raipur.

Gangappagouda, S.B. 2012. A study on technological gap in adoption of improved chilli cultivation practices in yadgir and raichur districts of Karnataka. *M.Sc. (Ag.) Thesis.* University of Agricultural Sciences, Raichur.

Hrudayranjan, C. 2013. An exploratory study on scope and importance of farm mechanization in groundnut in Chittoor district of Andhra Pradesh. *M.Sc. (Ag.) Thesis.* Acharya N.G. Ranga Agricultural University, Hyderabad, India.

Kanchan, K. 2016. Knowledge and Adoption of improves technologies by Orange growers. *M.Sc. (Ag.) Thesis*. Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola.

Kiran, Depak, D., Gupta, B.K and Pandey, D.K. 2012. Entrepreneurial behaviour of rural women of Sultanpur district of Uttar Pradesh. *Indian Research Journal of Extension Education*. 12 (2): 29-33.

Kulakarni and Jahagirdar. 2015. Technological gap in recommended rose cultivation practices in Dharwad district, Karnataka. *Karnataka Journal of Agricultural Sciences*. 28(3): (381-384).

Lekhanath, T. 2016. A study on technological gap and marketing behavior of pomegranate growers in Koppal district of Karanataka. *M.Sc. (Ag.) Thesis*. University of Agricultural Sciences, Raichur.

Madhu, B. M. 2010, Technological gap in turmeric production practices in Belgaum district. *M.Sc. (Ag.) Thesis*, University of Agricultural Sciences, Dharwad, Karnataka (India).

Mahatab, A. 2010. A study on knowledge and adoption of aerobic rice growers in Eastern dry zone of Karnataka State. *M.Sc. (Ag.) Thesis*. University of Agricultural Sciences, Bangalore.

Nayak. 2014. A study on knowledge, adoption and economic performance of arecanut growers in north kanara district of Karnataka. *Unpub. M.Sc. (Ag.) Thesis*. University of Agricultural Sciences, Bangalore.

Parushni, M.G. 2017. A study on technological gap of ginger cultivation in Shivamogga district. *M.Sc. (Ag.) Thesis.* University of Agricultural and Horticultural sciences, Shivamogga.

Patel, S. 2011. Technological gap in cotton cultivation. *M.Sc. (Ag.) Thesis.* Anand Agricultural University, Anand.

Pawar, S.R. 2015. Technological gap in banana production technology. *M.Sc. (Ag.) Thesis*. Vasantrao Naik Marathwada Krishi Vidyapeeth, Prabhani, Maharashtra (India).

Rahul, P. 2016. A study on technological gap in cultivation of cotton crop in Kasrawad block District Khargone (M.P.). *M. Sc. (Ag.) Thesis*. Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur.

Ramukumar, T. 2015. A study on technological gap in adoption of recommended cultivation practices by the rice farmers in Kurnool district of Andhra Pradesh. *M.Sc. (Ag.) Thesis*. S.V. Agricultural College, India.

Sanjota, K.P. 2014. Technological gap in pepper cultivation in Uttar Kannada

district, *M.Sc. (Ag.) Thesis*. University of Agricultural Sciences, Dharwad, Karnataka (India).

Sidramayya. 2013. A study on technological gap and marketing behavior of sweet orange growers in raichur district of Karnataka. *M.Sc. (Ag.) Thesis*. University of Agricultural Sciences, Raichur, Karnataka (India).

Sorate, P.T. 2011. Technological gap in cultivation of Grape in Akola district. *Unpub*. *M.Sc. (Ag.) Thesis*. Department of Extension Education, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola.

Sreenivasulu, M. 2011. Empowerment of farmers through Farmer Field School in Andhra Pradesh. *Ph. D Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad.

Sriharinarayana, N. 2013. Constraint analysis of rice farmers of Nellore district of Andhra Pradesh. *M.Sc. (Ag.) Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad.

Srinivasareddy, M. 2008. Feasibility of privatization of veterinary services: A study in Andhra Pradesh. *Ph.D. Thesis*. Acharya N.G.Ranga Agricultural University, Hyderabad, India.

Vijayakumar, K.2001. Entrepreneurial behavior of floriculture farmers in Ranga Reddy district of Andhra Pradesh. *M. Sc. (Ag.) Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad.

How to cite this article:

Megha.M. Nagayyanavar, P. Bala Hussain Reddy, S. V. Prasad and Nagamani, C. 2020. Profile Characteristics of Acid Lime Growers of Vijayapura District of Karnataka. *Int.J.Curr.Microbiol.App.Sci*. 9(12): 3169-3177. doi: https://doi.org/10.20546/ijcmas.2020.912.377