



Acid Lime Growers' Feasibility Perception of Contract Farming.

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Abstract

Contract farming is generally practiced by food processing firms where in the risk is allocated between the company and its growers. Its key aspect is risk sharing and risk reduction. Hence we made an attempt to know the perception of acid lime growers and ascertain the prospects of contract farming. The sample comprised of 200 acid lime growers in 3 districts of maharashtra, using random walk sampling technique. The data collected through a structured interview schedule were analyzed using the t-test of significance of difference between sample and population means. The study revealed significant relationship between occupation ($t=1.596$) And perceived acceptability of contract farming in citrus at 5 per cent level of significance. Similar relationship prevailed between annual income from acid lime ($t=0.391$) And perceived acceptability of contract farming in citrus. Guaranteed and fixed pricing structures was perceived to be the main advantage of contract farming which attracted attention of the maximum respondents ($rbq=175$). As regarding risk factors, inadequate water for irrigation ranked the topmost factor followed by price uncertainty. In case of issues governing profitability, unfair market price has been ranked as the number one issue ($rbq=181.33$) Followed by over production and less market price ($rbq=178.33$) To the produce. It is expected that this study will help policy makers to develop more appropriate marketing policies in india.



Article History

Received: 12 July 2017

Accepted: 23 October 2017

Keywords:

Acid lime,
Contract
Farming,
Feasibility,
Perception.


Introduction

In India, citrus is the third largest fruit industry and acid lime (*Citrus aurantifolia* Swingle) contributes 25 per cent of the total citrus area. It is grown on large scale especially in Andhra Pradesh, Telangana, Gujarat, Maharashtra and Tamilnadu. The total area under acid lime and lemon in India is 2, 69,000 ha

with 30,20,000 tonnes of annual production¹. The production and marketing are closely interlinked and at times owing to glut, more production brings down prices and profitability. While the green revolution era focused mostly on production, the marketing aspect was neglected for long. As a result, farmers were left to the vagaries of volatile input and output

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To Link to this Article: <http://dx.doi.org/10.12944/CARJ.5.3.11>

markets, leading to exploitation by middlemen. In the present situation, quality and competitiveness are gaining centre-stage. The globalization has opened up many opportunities as well as challenges for trading in domestic as well as international markets. This however has created specialized needs of growers and the private sector has also come forward to perform the task of technology transfer and marketing of produce. Under such situation, contract farming ensures a stable and reasonable income to the farmers. Contract farming is fundamentally based on three main premises: 1.The firm commits in advance to purchase certain volume of produce and the producer commits to delivering it.2.The contract rests on specific crop management practices to be followed by the farmer.3.There is an implied differential allocation and sharing of production risk. In contract farming, the companies often meet farmers to introduce them to the best orchard management practices. Many private companies; do the job of capacity building and skills transfer besides supplying the latest technology package to the farmers. Hence, to ascertain the scope of contract farming in acid lime, this research was undertaken.

Methodology

The sample of acid lime growers (200) was drawn from two districts of western and one district of the Vidarbha region in Maharashtra, covering five taluka and eighteen villages (Table A). The respondents who had previous experience in marketing of acid lime were selected. For the collection of data households were chosen from selected villages by random walk sampling technique. Using the pre-tested interview schedule the sample respondents were contacted for eliciting information, which had both close-ended and open-ended questions. The statements to ascertain feasibility of contract farming

were measured on four-point continuum namely, feel strongly, feel moderately, feel neutral and not feeling with the score ‘four’, ‘three’, ‘two’ and ‘one’ respectively. The eight issues governing profitability were enlisted and against it, the responses were elicited on three point grading scale with appropriate coding. The rank based quotient for each aspect was worked out and the rank order was decided.

Results and Discussion

The results obtained from the present study as well as discussions have been summarized under following heads.

Feasibility Perception of Contract Farming

Perception is the ability of an individual to comprehend and interpret the situation or thing to form a coherent

Table 1: Regression analysis between selected independent variables and perceived acceptability of contract farming (N=200)

Sr No.	Variables	Mean	Std. Deviation	‘t’ value
1	Education	3.65	1.24	0.505
2	Occupation	2.78	0.58	1.596**
3	Social participation	1.22	0.57	0.247
4	Total land holding	3.85	3.52	0.029
5	Irrigated land holding	3.54	3.33	0.023
6	Communication behavior	10.55	1.4	0.641
7	Annual income from citrus	418768	705738.9	0.391**
8	Average productivity	3.31	1.03	1.137

** Significant at 1% level * significant at 5 % level

Table: A

District	Taluka	Villages		
Ahmednagar	Srigonda	Ghargaon	Belwandi	Pargaon
		Kolgaon	Makhrewadi	Adhorewadi
Solapur	Mohol	Warkute	Ankoli	Aundhi
	Malsiras	Piliv	Tarangfal	Malkhambi
Akola	Wadegaon	Degaon	Balapur	Butwadi
	Patur	Tulanga	Vivra	Deulgaon

- Education: Primary=1, Middle school=2, High school=3, College=4, Graduate=5, Post graduate=6
- Social Participation: President/vice president=4, Secretary=3, Member=2, Non-member=1
- Occupation: Farming only=3, Farming + Govt. service=2, Farming + business=1
- Communication behavior : Regularly=3, Occasionally=2, Rarely=1
- Average productivity: 0-5 tns=1, 5-10 tns=2, 10-15 tns=3, 15-20 tns=4, 20-25 tns=5

and unified view of an issue. The data on perceived feasibility of contract farming presented in Table 1 showed significant relationship between occupation ($t=1.596$) and perceived acceptability of contract farming in citrus at 5 per cent level of significance. Similar relationship existed between annual income from acid lime ($t=0.391$) and perceived acceptability of contract farming in citrus. Rest of the factors did not show any significant relationship owing to the

respondents' skepticism about the launching of any such venture by the private sector.

Perceived Advantages of Contract Farming

Table 2 specifies the prioritizations of perceived advantages of contract farming by acid lime growers. The guaranteed and fixed pricing structures was perceived as the main advantage which sought the attention of maximum respondents (RBQ=175).²

Table 2: Perceived advantages of contract farming (N=200)

Sr. No.	Aspects of perceived advantages	Total Score	RBQ	Rank Order
1	Provision of production management services	653	163.25	IV
2	Access to credit/credit linked input supply	621	155.25	VIII
3	Access to improved/appropriate technology	664	166	III
4	Skill transfer	613	153.25	VI
5	Guaranteed and fixed pricing structures	700	175	I
6	Reduction in pre & post harvest losses due to monitoring & advice of the CF company.	510	127.5	X
7	Reduced transaction cost	552	138	IX
8	Better quality produce	624	156	V
9	Insurance based contract	614	153.5	VII
10	Shield against market fluctuations	695	173.75	II

Table 3: Risk Factors in Acid lime Farming (N = 200) (PMS)* =600

Sr. No.	Risk Factors	High	Medium	Low	Total Score	Mean Score	Rank Order
		3	2	1			
1	Hailstorm	50	30	120	330	110	IV
2	Price uncertainty	94	69	37	457	152.33	II
3	Inadequate water for irrigation	112	42	50	470	156	I
4	Bumper production and fewer prices (distress sale)	86	59	55	302	143.66	III
5	Incidence of phytophthora induced diseases like gummosis	40	34	126	314	104.66	VI
6	Excessive fruit drop due to unseasonal stormy weather & rains	35	29	136	299	99.66	VIII
7	Any other						
	i. Citrus Canker	45	39	116	329	109.66	V
	i. Bark Eating Caterpillar	37	26	137	300	100	VII
	i. Fruit Cracking	23	11	166	257	85.66	IX

PMS=Possible Maximum Score

got similar findings. It was followed by shield against market fluctuations (RBQ=173.75). It discerns that, due to more instability in prices they are getting less profit. The access to improved technology ranked to be the third (RBQ=166) important factor.³ reported similar finding in the study on contract farming in Karnataka. The provision of production management services ranked as fourth (RBQ=163.25) relative advantage followed by better quality produce (RBQ=156) and skill transfer (RBQ=153.25). The insurance based contract (RBQ=153.50), access to credit/credit linked input supply by the contract farming firm (RBQ=155.25), reduced transaction cost (RBQ=138), and reduction in pre & post harvest losses due to monitoring and advice of the contract farming company (RBQ=127.50) were rated to be the seventh, eighth, ninth and tenth in order of preference. It indicates that their cause of concern is more of marketing than the production aspect.

Risk Factors in Acid Lime Farming

With certain perceived risks, the orchardists' tread the path ahead with optimism of remunerative prices to the produce. The data in table 3 enlists the risks factors in citrus farming and the questions were asked on three point grading scale. The rank order shows the prioritization of risk factors perceived by the growers. Inadequate water for irrigation ranked

the first highest risk factor. Similar findings were reported by⁴ in a study of citrus in Jammu region. The second important risk factor was price uncertainty followed by bumper production and fewer prices (distress sale) as third.⁵ observed same in case of fruits in Uttar Pradesh. The incidence of hailstorm was the fourth and citrus canker stood to be the fifth important risk factor. The incidence of phytophthora induced gummosis considered to be the sixth risk factors whereas the bark eating caterpillar, excessive fruit drop due to unseasonal stormy weather & rains and fruit cracking relegated to the seventh, eighth and ninth positions respectively.

Perception on Issues Governing Profitability

Although the overall profit margin is governed by the market rate at the time of sale, there are various interlinked factors/issues that determine the profitability. Table 4 delineates all such issues of cardinal importance. Unfair market price was ranked as the number one issue (RBQ=181.33) followed by over production and less market price (RBQ=178.33) to the produce. Distress sale to pre-harvest contractors (due to immediate need of money and tradition (RBQ=175.66) rated as the third important issue and the middlemen deciding the price of the produce (RBQ=174.00) as fourth. The lack of grower's co-operative organizations to support

Table 4: Perception on issues governing profitability (N = 200)*

Sl. No.	Issues governing profitability	Main -3		Secondary -2		Tertiary -1		RBQ	Rank
		f	%	f	%	f	%		
		1	Selling the produce without proper grading and packing.	35	17.5	93	46.5		
2	Lack of government support / assistance in marketing the produce.	92	46	77	38.5	31	15.5	154.6	VII
3	Middlemen, deciding the price of the produce.	135	67.5	52	26	13	6.5	174	IV
4	Lack of grower's co-operative organizations to support group marketing.	110	55	81	40.5	9	4.5	167	V
5	Lack of cold storage facilities in the market premises.	87	43.5	96	48	17	8.5	156.66	VI
6	Distress sale to pre-harvest contractors (due to immediate need of money and tradition).	148	74.00	31	15	21	10.5	175.66	III
7	Over production and less market price	154	77	29	14.5	17	8.5	178.3	II
8	Unfair price	158	79	28	14	14	7	181.33	I

group marketing (RBQ=167.00) was rated to be the fifth in order of importance. It established a close connection among these five factors that govern profit margin. The lack of cold storage facilities in the market premises (RBQ=156.66) was ranked as sixth whereas the lack of government support / assistance in marketing the produce (RBQ=154.66) as seventh in order of importance. Selling the produce without proper grading and packing (RBQ=121.00) was relegated to the last position.

Conclusion

On the basis of the above mentioned results and the discussion, it can be concluded that the acid lime growers who are getting good annual returns from the acid lime cultivation are willing to go for contract farming. As there are no regulated markets

in the region, the farmers sell their produce in the unregulated markets. Due to the informal relations with the local middlemen, they are so accustomed to the prevalent transactions and find security in the usual dealings. Although the guaranteed and fixed pricing structures were appreciated by the acid lime growers, unless the relative advantages of alternative model in the form of contract farming are experienced by peers, they preferred to be status quo.

Acknowledgement

Authors are thankful to the Director of ICAR- Central Citrus Research Institute (CCRI), Nagpur, India for the provision given to carry out this study.

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