

RESEARCH ARTICLE :

Contract farming in sweet corn - a new dimension for tribal farmers of Navsari district

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SUMMARY : The study was conducted in tribal dominated Navsari district. A total number of 160 tribal farmers from 16 villages were selected purposively and from each village 10 respondents were selected. The study focused on the economics of contract farming of sweet corn in South Gujarat and its impact on income, employment and access to technology and credit by contact farmers. The study revealed that a clear majority of the respondents (52 %) had medium level of knowledge. Their adoption level was predominately medium level (51 %). After KVK intervention overall income of respondents has been increased to 41 per cent.

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Contract farming,
KVK, Intervention,
Sweet corn

BACKGROUND AND OBJECTIVES

The globalization has led to a new arrangement in the procurement and production of agricultural production. Contract farming refers to production and supply of agriculture produce under advance contracts, the essence of such contracts commitment to provide an agriculture commodity of a type at a time and a price and quantity required by a known buyer. Contract farming is an economics intervention to provide an environment of competition in the background of an institutional set up. In India, this system can be traced back to the colonial period when cotton and indigo were produced by the Indian farmers for the English factories (Asokan and Singh, 2003). Contract farming is the contractual arrangement between farmers and

a company, whether oral or written, specifying one or more conditions of production and or marketing (Roy, 1963). The new agriculture policy of the Government of India aimed at promoting growth of private sector participation in agribusiness through contract farming, which accelerates technology transfer, and capital flow and provides assured markets for crops. Contracting leads to environmental equity, food security and sustainability problems. It provides better income to farmers and generates more employment for labour through introduction of new crop technologies and by providing markets and inputs. In fact contract farming as a system would affect the producers positively or negatively depends on the context of the economy (Singh, 2000).

Contract could be many types but looking

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into the advantage of the tribal farmer of Gujarat. Krishi Vigyan Kendra has made MoU with private firms. It provides assured price for their product. It reduces price risk of the farmer and it can be terminated by the short notice when the farmer getting higher price in the market. Since three years KVK, Navsari is involved in contract farming in tribal area of Navsari district. This is mutual benefit to private firms as well as farmers. Contract farming may give positive image to the company as it may be perceived as progressive, especially it works with small farmers. For farmers it removes the market imperfections and removes intermediaries and help in better co-ordination, which can help in overall rural development. The specific objective of study was to know the problems faced by sweet corn growers during contract farming.

RESOURCES AND METHODS

Multistage sampling method was used to choose the sample farmers. At the first stage, based on the concentration of area under sweet corn contract farming was selected. At the second stage, after discussions with the production manager of the company, a cluster of villages participating in contract farming was chosen. Finally, based on the farmers detailed maintained by the firm. The study was conducted in Navsari district. A total number of 160 farmers from 16 villages were selected purposively and from each village 10 respondents were selected randomly making the total of 160. To measure knowledge and adoption level teacher made scale was used. Data were tabulated and analyzed in light of objective.

OBSERVATIONS AND ANALYSIS

In Navsari district farmers were not cultivating sweet corn. There is large scope for sweet corn cultivation because climate is suitable for this crop. This crop is short duration and high valued. In tribal area farmers have limited period of irrigation after *Kharif*. KVK introduced the crop in this area during the year 2010. Continuous training and demonstrations were organized. Since them farmers were growing sweet corn, so impact study was conducted and results are presented here with 160 respondent.

Profile of the respondents:

The findings of these selected characteristics have

been presented in following section:

Age:

From the data presented in Table 1 show that 39 per cent of respondents were in 41 to 50 year age group followed by 28 per cent of the respondents belonged to above 51 year age group and 11 per cent belonged to young age (0 to 30 year) group.

Education :

A perusal of data presented in Table 1 is reveals that major segment (51 %) of the respondents were educated up to primary school level followed by 22, 13, 6, 6 and 3 had an education upto secondary school level, upto higher secondary school level, illiterate, upto graduate level and upto post graduate level, respectively.

Type of family :

It is evident from the data in Table 1 that 83 per cent farmers were in joint family followed by 18 per cent nuclear family.

Land holding:

The data presented in Table 1 reveal that 66 per cent of respondent had above 3 acre land holding followed by 24 per cent respondent of 2 to 3 acre land, respectively.

Irrigation facility:

From the data presented in Table 1 that 86 per cent of respondents were having own irrigation facility followed by 10 per cent were in partnership. This data indicates that majority of respondents had their own irrigation.

Time of contract farming:

The data presented in Table 1 portray that 44 per cent of respondents were having contract farming from two years followed by 35 per cent respondents were having contract framing since three years.

The salient features of domestic and contract farming reported in Table 2 reveal that there were several parallels between these types of firms. Entrepreneurship and resource endowment of the farmers were the main criteria for choosing farmers for contract farming. KVK supplied quality inputs such as seeds, fertilizer, plant protection chemicals and technical knowhow and procured the input, establishing vertical linkages between firm and farmers. Farmers were given the flexibility to

Table 1 : Socio-economic profile of sweet corn growers

Sr. No.	Particulars	Number of farmers	Percentage
1.	Age		
	0 to 30	18	11
	31 to 40	35	22
	41 to 50	63	39
2.	Education		
	Above 51	44	28
	Illiterate	10	6
	Primary	81	51
	Secondary	35	22
	Higher secondary	21	13
3.	Type of family		
	Nuclear	28	18
	Joint	132	83
4.	Occupation		
	Agriculture	156	98
	Service + Agri.	2	1
5.	Land holding		
	Agriculture + Labour	2	1
	1 to 2 Acre	16	10
6.	Irrigation facility		
	2 to 3 acre	39	24
	Above 3 acre	105	66
7.	Time of contract farming		
	Own	137	86
	Partnership	16	10
	Irrigation from other	7	4
	One year	33	21
	Two year	71	44
	Three year	56	35

grow crops of other companies also. Payment was made by check or DD on the base of actual weight. No compensation was given in the event of crop failure. The most striking difference between open market and contract farming were pre determined price fixation. Similar results was reported by Nagaraj *et al.* (2008 a&b). Opinions regarding some important issues like price, input, credit, technical guidance and timely payment were recorded. All most all the farmers are were fully satisfied and satisfied over the particulars mentioned in the Table 3. Price fixed by the KVK for farmers were fully satisfied, because in present condition market fluctuation creates the problem in getting higher remuneration. Therefore KVK has made MoU with company to give fixed rate and also the farmers have right to sell their product in the market if they are getting higher price in the market. Hence 92.5 per cent farmers were fully satisfied over price issue Table 3. Regarding input, technical guidance and timely payment all the farmers were satisfied. All most all the farmers were satisfied by the KVK intervention regarding regular guidance, information and facility provided by the KVK over private company Table 4. These results are similar to those reported by Nagaraj *et al.* (2008 a&b). Before intervention of the KVK farmers income was rupees 19526 per acre after consecutive three years of efforts farmers obtained rupees 27667 per acre Fig. 1. Similar results were reported by Dileep *et al.* (2002).

To identify the problem and advantages of contract farming, the responses of sample farmers were analyzed by the Garret's ranking technique. It combined the rank given by all the farmers and provided the final rank of each factor.

Table 2 : Salient features of contract farming companies

Particulars	Company
Year of establishment	2010-11
Type of contract	Written and season base.
Contract written language	Gujarati
Criteria for choosing farmers	Entrepreneurship, resource endowment (Specially assured ground water irrigation)
No. of farmers under contract	1525
Contract input supply	Seeds/fertilizers, plant protection, chemicals
Flexibility to grow crops of other company	Allowed
Mode of payment	By check or D.D
Advanced payment	No provision
Time of payment	15-20 days after the day of last delivery
Compensation in the event of crop failure	No compensation
Price fixation	Pre-determined
Technical guidelines	Somewhat provided
Processing unit	Processing unit with sophisticated refrigeration for fresh packing of commodities.

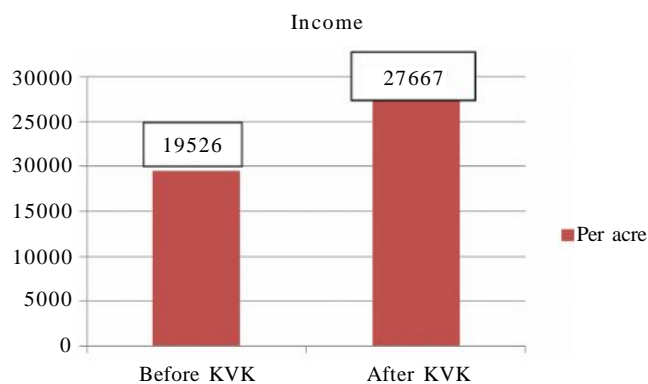


Fig.1 : Income of respondent before and after KVK intervention

It is evident from the Table 5, that delay in payment ranked as first constraint, followed by high cost of inputs, company not received all sweet corn corm, quality of sweet corn, marketing problem of B-C grade sweet corn, access to seed and less technical guidance at field level, in contract farming.

Among different benefits from contract farming, contract farmers felt that fair price for the produce was the prime factor to prefer contact farming because farmers produce sweet corn but marketing of those produce is very difficult. So contract with company for selling their produce and they get fixed price. The second most important factor was assure market, guarding them

Table 3 : Sweet corn grower's opinion to contract farming

Particulars	Totally not satisfied	Not satisfied	Partial satisfied	Satisfied	Fully satisfied
Price	0	0	0	8.1	92.5
Input	0	0	19.3	81.3	0
Credit	100	0	0	0	0
Technical guidance	0	0	9.4	63.13	28.13
Timely payment	0	0	0	89.4	11.25
KVK	0	0	0	13.12	87.5

Table 4 : Satisfaction of farmers towards facility provided by KVK and Company about sweet corn contract farming

Particulars	KVK		Company	
	No. of farmers	Per cent	No. of farmers	Per cent
Seed	160	100	0	0
Fertilizer	132	82.5	0	0
Pesticides	132	82.5	0	0
Technical information	151	94.4	0	0
Training	160	100	0	0
Soil analysis	61	38.1	87	54.4
Maturity indices	122	76.3	131	81.8

Table 5 : Constraints and advantages of contract farming

Sr. No.	Constraints	Rank
1.	Delay in payment	1
2.	High cost of inputs	2
3.	Company not received all sweet corn	3
4.	Quality of sweet corn	4
5.	Marketing problem of B-C grade sweet corn	5
6.	Access to seeds	6
7.	Less technical guidance at field level.	7
Advantages		
1.	Fair price for the produce	1
2.	Assured market, less risk	2
3.	Low initial investment	3
4.	Access to information on production	4
5.	Short duration return	5
6.	Availability of fodder for animal	6
7.	Transportation facilitation	7

against fluctuating prices in open market and third was low initial investment. The fourth factor was access to information on production, technical guidance provided by Krishi Vigyan Kendra. The fifth and sixth factors was short duration return crop and availability of fodder for animal during late winter, which is most important point for small and marginal farmers to contact farmers.

Conclusion :

The contract farming has helped the small farmers to improve their income level and they were fully satisfied with price of sweet corn. The government should facilitate contract farming in feasible areas. In spite of several advantages, the farmers under contract farming have expressed certain problem like delay in payments, high cost of input, company not received all sweet corn etc., these need to be addressed by the companies in the interest of sustaining long term synergistic relationships between firm and farmers.

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