Vol XXI
No. 4

ISSN 0019-5014

CONFERENCE
NUMBER

OCTOBER-
DECEMBER
1966

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS

INDIAN SOCIETY OF
AGRICULTURAL ECONOMICS,
BOMBAY

CO-OPERATIVIZATION OF GROUNDNUT PROCESSING

M. G. CHANDRACHUD*

Maharashtra State Co-operative Bank Ltd., Bombay

Groundnut occupies an important place in the agricultural economy of the Maharashtra State with 27 lakhs of acres under groundnut. Most of the crop is unirrigated, the yield varying between eight to ten maunds per acre. The cultivator, at present, sells his produce to the private trader or in the market at prevailing market rates which are low during harvesting season and high at the fag end of the period. The private trader, besides taking advantage of these price fluctuations, earns further profit by selling finished products after processing, *viz.*, oil, cake, de-oil cake, soap, etc. It was, therefore, thought if the benefits of the finished product are to reach the cultivator, processing industries must be established in the co-operative sector. With this objective the Maharashtra State Co-operative Bank, through its Industries Commission, encouraged the establishment of a groundnut processing project at Sangli in 1961. Associated as the author is with this project, which is the first of its type in the country, for the past five years, we would like to mention in this paper some important aspects of this industry in brief.

The largest processing industry that has been successful so far in the co-operative sector is the sugar industry. Therefore, while implementing this project the same principles have been made applicable. Experience, however, has shown that these principles need some modifications. Basically, there are a number of things which are different in these two industries. In the sugar industry there is only one process. In the case of groundnut processing there are different stages, *viz.*, oil mill, solvent extraction, refining, vanaspati, soap, etc. Further, sugarcane being a perishable commodity has to be processed immediately. Moreover, it has to be used for the manufacture of either sugar or *gur*. The sugar industry being protected, has never to worry about market. There are hardly any such factors favourable to the groundnut processing industry. In the light of these fundamental differences, we can study the experience gained at Sangli.

Solvent Extraction Plant

The plant approved and installed is the popular 'Lurgi' continuous plant which found favour in recent years among the entrepreneurs. The plant processes per day 50 tonnes of expeller oil cake containing 7-8 per cent oil to give 44 tons of de-oil cake and 4-5 tons of solvent extracted oil. The de-oil cake finds use as a fertilizer, a cattle feed and a source of protein. The solvent extracted oil after refining finds use in edible products like vanaspati or directly in soaps.

The plant which has one-third import component and two-third indigenous parts involves a capital expenditure of about Rs. 19 lakhs on machinery and Rs. 2 lakhs on buildings. This capital cost of about Rs. 21 lakhs was planned to be raised by the society with Rs. 3 lakhs as its own share capital, Rs. 3 lakhs as Government

*The views are personal.

share capital and Rs. 15 lakhs as a medium term loan from the Apex Co-operative Bank. The plant requires working capital of the order of Rs. 15-20 lakhs.

The unit expected to run 300 days in a year is rated to process 15,000 tons of oil cake to give at the rate of 4,000 tons of de-oil cake and 11,000 tons of oil which at present prices can be valued at over Rs. 1 crore.

The Co-operative Oil Mills

The setting up of co-operative oil mills, 30 in number, spread out over the Sangli district and affiliated to the federal society was commenced simultaneously with the erection of the solvent extraction plant. Such a diversified set-up required not only the erection of the machinery but a disciplined organization of the activity involving basically the instilling of the spirit of co-operative loyalty amongst the agriculturists.

Each oil mill, planned to have one baby expeller, involved an expenditure on machinery of about Rs. 35,000 and on other requirement like buildings, godowns, etc., of about Rs. 55,000. The total capital expenditure of Rs. 90,000 was planned to be raised by the society from the producer-members and the Government, each giving Rs. 30,000 and Rs. 16,000 respectively. The Apex Bank would share with a loan of Rs. 25,000 while the Government would give, in addition, a subsidy and loan for a medium size godown totalling Rs. 20,000. The working capital is of the order of Rs. 5 lakhs for each oil mill.

Each oil mill expected to run for 300 days is rated to process about 1,200 tons of groundnut valued at approximately Rs. 18 lakhs to give about 360 tons oil and 540 tons oil cake valued at Rs. 16 lakhs and Rs. 3 lakhs respectively.

Working of the Project

The pattern of working adopted is briefly as follows. An agriculturist becomes a member of the primary oil mill society in his locality and purchases shares of the society. The agriculturist signs an agreement to supply the entire produce of groundnuts for processing in the oil mill. An oil mill covering 4,000 acres is thus assured 1,200 tons of groundnuts from the producer-members. The oil mill society accepts the groundnuts supplied by the producer-member and gives him an advance payment of 80 per cent of the average rate of groundnuts based on figures of the past two seasons and contemplated for current season. The groundnuts from members are pooled and processed. The expeller oil produced is sold while the expeller oil cake is sent to the federal society for processing on advance payment. The solvent extraction plant then processes the expeller oil cake and sells the solvent extracted oil and the de-oil cake. The entire financial position is reviewed at the end of the season and the profits are forwarded to the producer-members in proportion to the groundnuts supplied by them.

The above concept of working would have been ideal in true operation if all the 30 oil mills were procuring 120 tons groundnuts per day and processing them to give 60 tons of expeller oil cake per day to the federal solvent extraction plant for processing. In actual practice, however, the performance is indicative of the

difficulties experienced both by the federal society and the oil mills. The review of the working of both oil mills and the solvent extraction plant is briefly covered below.

The Solvent Extraction Plant and Oil Mills

The plant commenced trials in September, 1963 and since then its working has been as shown in Table I.

TABLE I

Year	Days worked	Expeller cake processed	Percentage idle capacity
1963-64	104	5,008 tons	66
1964-65	105	5,438 tons	53
1965-66	61	2,507 tons	86

The solvent extraction unit was planned to work on the expeller cake supplied by the 30 co-operative feeder oil mills. However, by the time solvent plant went into operation, only a handful of oil mills went into production. These mills, however, could not work for the full season at the rated capacity due to price fluctuations in the rates of groundnut and oil. The solvent extraction plant had to purchase expeller oil cake from outside. The oil mills were planned to work on the supply of groundnuts from the producer-members. Here, however, the procurement was very poor as the members seemed averse to take 80 per cent advance when full payment could be obtained from the markets. The question of loyalty was at stake here. The collections of groundnuts effected were very poor compared with the acreage covered (Table II).

TABLE II

	1963-64	1964-65	1965-66
(*a*) Oil mills registered	26	26	26
(*b*) Total area covered (acres) ..	11,660	22,847	23,664
(*c*) Total number of members ..	17,340	21,061	22,102
(*d*) Oil mills ready for operation ..	9	15	18
(*e*) Oil mills worked	5	12	9
(*f*) Groundnuts collected by mills (number)	12	21	17
(*g*) Total groundnuts collected (in tons)	2,294	5,439	804
(*h*) Members' groundnuts (in tons) ..	708	3,193	431

The collection of groundnuts in 1965-66 has been poor due to the scarcity conditions which suddenly affected all agricultural commodities and whose effect on the markets is yet to subside.

The question of paying advance on the groundnuts given to the mill was the first item to tackle. It was decided that an average rate should be worked on the basis of past two years and the contemplated rate that may prevail for the current year. Eighty per cent of this was to be paid as advance money and the balance was to be paid at the end of the year after selling oil, oil cake on an average basis. From this advance the crop loan was recovered and the balance paid to the cultivator-member. This system, however, failed to gain any response from the members due to the erratic market conditions. Thus any member taking Rs. 80 per quintal advance on the groundnut price of Rs. 100 per quintal would be eligible for Rs. 20 or more as final payment depending on profits made. However, by the time this money could be reimbursed, the market price invariably rose to over Rs. 150 per quintal. The member, therefore, grudged that he got no benefit at all and the attraction for the advance payment system subsided with passage of time. Even now it has been difficult to find a solution to this problem. If the full price is paid prevailing at the time of receiving the groundnuts for processing, the mill has to work with a high risk of price fluctuation over its head. Further, the rates being changing every day all members will get different price which runs counter to the principle of co-operation.

The oil mills were planned for sound technical working but, however, certain unforeseen circumstances like the non-availability of power for more than one shift of operation, the apparent inability to sell oil and the uncertain market conditions which made selling of groundnuts more profitable than processing them were a few major set-backs affecting the performance of the feeder oil mills. It is a matter of concern when the oil mills which have processed groundnuts are the losers while the oil mills that have only sold groundnuts are the ones to profit.

It is most unfortunate that the oil milling industry which produces an item of every day necessity should be left open to such wide price fluctuations which neither benefit the cultivator nor the consumer. At a time when we are facing shortage of edible oil in the country serious thought needs to be given to stabilize this industry. The oilseeds should be treated on par with foodgrains and the system of monopoly procurement at fixed prices should be introduced. Till the time this does not materialize, Government should give aid in the form of 'price fluctuation fund' to the co-operative units. Then alone they can take business risks and work to their full capacity.

Market fluctuations have been the bane of the oil milling industry and a glimpse of the past market averages is indicative of this factor which has invariably affected the smooth working of the oil milling industry. The approximate figures for the last three years on an average, in Bombay markets are given in Table III.

The effect of this unprecedented rise in the prices over the last three years requires no further comment except that it is now time to afford some sort of a protection to the industry. L ke foodgrains, the oil and cake should be available to the common man at a reasonable price all the time in the year. When once the

TABLE III

	1964	1965	1966
	Rs./ton	Rs./ton	Rs./ton
Groundnut seed	1,150	1,500	2,000
Groundnut expeller oil	2,500	3,000	4,500
Groundnut expeller cake	480	510	625
De-oil cake	450	450	500
Solvent extracted oil	1,900	2,500	4,000

base of this important processing industry is stabilized, other issues such as growing the variety having higher oil percentage, increasing the yield per acre, etc., are easy to tackle.

CO-OPERATIVE PROCESSING OF BANANA IN JALGAON DISTRICT (MAHARASHTRA)

M. M. BHALERAO*

Lecturer in Agricultural Economics
Banaras Hindu University, Varanasi

By 1963, 899 licensed fruit and vegetable processing units functioned in the country. Of these 17 (1.9 per cent) were in the co-operative sector. Their State-wise break-up was : Maharashtra 6, Kerala 3, Andhra, Gujarat and West Bengal 2 each, Assam and Manipur 1 each. Table I gives the progress of co-operativization of processing of fruits and vegetables in the country during 1961-63.

TABLE I—PROGRESS OF CO-OPERATIVE PROCESSING OF FRUITS AND VEGETABLES: 1961-63

Year	Percentage share in the total quantity of fruits and vegetables processed			Percentage share in the total value of fruits and vegetables processed		
	Private sector	Public sector	Co-operative sector	Private sector	Public sector	Co-operative sector
1961	99.0	0.7	0.3	98.5	1.1	0.4
1962	97.3	0.6	2.1	95.5	0.8	3.7
1963	96.2	0.7	3.1	93.8	1.1	5.1

Source : Indian Co-operative Review, Vol. III, No. 1, October, 1965, p. 709.

*The author wishes to thank the Manager of the Jalgaon District Co-operative Marketing Society for having supplied the necessary data on costs of production for the processed products.