material furnished by the investigating officer. Commercial concerns always seek the help of special advertising agencies for writing their advertisements. This would relieve pressure on the time of the scientist. After editing by the Central Agency, the draft of the popular publication or advertisement may be sent back to the author for approval before releasing it to the Press.

Co-operative Marketing of Sathugudi Oranges.

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The Kodur Fruit Growers' Co-operative Society, Rajampet.

The production of Sathugudi oranges in South India is at present concentrated in parts of Cuddapah, Chittoor and North Arcot Districts. But nowhere has it attained such a great commercial importance as in Rajampet taluk of Cuddapah District, particularly in and around Kodur town. It has been estimated that out of a total area of about 13,000 acres under 'tight jacket' orange, about 4,000 acres are spread out in a small valley in Rajampet taluk bounded by the Velikonda hills on the East and South and Sashachalam hills on the North and West. This tract is favoured by a fertile soil of considerable depth and good texture, a plentiful supply of sub-soil water suitable for irrigation, freedom from cyclonic winds and proximity to markets, factors eminently suitable for making this valley so renowned as the leading orange belt of South India.

The estimated production of oranges in this tract is at present of the order of 50,000 railway maunds, of which well over 45,000 maunds are believed to be exported annually outside the district, primarily to Madras city. This production represents the crop of only about 40 per cent of the planted area, as the rest of the orchards are yet young and in a non-bearing stage. With the present trend for rapid extension of orange plantings and the consequent increase in the bulk of marketable oranges from such new plantations in the near future, the problem of profitable disposal of the crop is bound to assume very great importance Already there are complaints that the price of oranges is showing an abnormal tendency towards deterioration, so much so that the fruit is being quoted during the peak season in retail market at Madras at about Rs. 2 per hundred as compared to Rs. 4 to 5 during the corresponding season about three years ago. To attribute this alarming fall in price to over-production will be a travesty of facts, for the Presidency is not only a big importer of 'Santra' oranges from Coorg and Nagpur, but is also suffering from an under-supply of Sathugudi or allied type of 'tight jacket' oranges in most of the mufussal markets and almost all towns other than Madras. The haphazard method of distribution and defective system of lease of orchards and of marketing of fruits are believed to contribute mainly to the prevailing slump. Such features serve only to accentuate the ills and hasten the ruinous condition of the orange industry as the younger plantations continue to add increasing quantities of saleable produce every year.

The Sathugudi-growing valley of Rajampet taluk is also reputed for the production of a number of varieties of mangoes, and also limes. The total area under mangoes in the taluk is estimated to be about 10,000 acres. Unlike oranges, however, the major portion of mangoes produced in this tract finds its way to Hyderabad (Dn) and Northern India markets instead of to Madras city which, because of their proximity, is naturally fed by the mango plantations in Chittoor district. Despite the absence of any clash of interests between the marketing problems of Sathugudi and mango, it is however found that the methods of assembling, financing the crop and its transport, methods of sale of standing crop and of disposal at the primary markets and place of production are almost identical in these two fruits, so that any improvements effected in the marketing of one fruit are bound to react favourably on the other as well. This fact necessitates the adoption of a co-ordinated policy in any effort for the profitable disposal of all fruit crops in this intensively fruit-growing tract.

A noticeable feature of fruit production in Rajampet taluk, as perhaps in the rest of the Presidency, is that the orchards comprise of small holdings of an average size of half-an-acre. The orange orchards in the taluk are therefore owned by a large number of small peasant farmers and a few well-to-do ryots. The former class of people is proverbially indebted, while a good number of the latter class has also to depend for temporary finacial assistance on extraneous sources at least during the harvesting periods. In a perennial crop like fruit which involves several years of patient waiting for returns, an injudicious grower is apt to overlook the golden principle of "cutting one's coat according to the cloth". Consequently, after about 10 years of nursing the young non-bearing orange plantation, the grower is usually faced with a pile of debt which he hopes to clear with the sale of his crop during the bearing period, commencing from about the eleventh year. Even during the latter period he should have ready capital for meeting the high annual cost on irrigation, manuring, watching and also on packing and transportation. After he has cleared the various loans borrowed for meeting these sundry annual expenditure, it is very rare that he has a surplus balance for clearing his original debt contracted during the non-bearing period of the plantation. Thus the average Sathugudi planter is anything but a contented person.

The aforesaid peculiarities provide a most profitable ground for giving full play to the wits and ingenuities of some unscrupulous middlemen and their dishonest commission agents. The writer does not suggest that all middlemen and commission agents are unscrupulous enemies of the grower; as a matter of fact, many growers acknowledge with gratitude the considerable financial help received from this class of financing businessmen in times of their dire need and but for which the growers would not have been able to tide over their acute periods of distress and even convert their plantations to veritable sources of profit in due course. Notwithstanding such instances, the fact cannot be gainsaid that, the fruit industry in Rajampet

taluk has come to what it is, almost entirely due firstly, to lack of suitable system of financial assistance, secondly, to individualistic efforts of the growers and thirdly, to the chaotic method of disposal of the produce in primary markets.

The disorganised state of the fruit industry in the taluk stimulated thought among some of the leading growers and drove them to adopt concerted efforts for bettering their lot. The inception of a Fruit Research Station at Kodur during 1935 helped a great deal in providing the growers with suitable advice at this period and in guiding their efforts through right channels. During 1935 and 1936, a number of meetings were convened at Kodur when several proposals for improvement of fruit industry through co-operative effort were discussed by some of the leading growers and the Government Officials of the Co-operative and Agricultural Departments. Ultimately on 17-4-1937, the Kodur Fruit Growers' Co-operative Society saw the light of the day and was officially inaugurated by the Collector of the District.

Since its inception in 1937, this society has been able to claim a very great and all round progress, so much so, that it is now recognised to be a unique and the only successful body in the line in the whole of India. A measure of its achievements cannot be adequately presented in the purview of a small article like this, but nevertheless, the following figures will serve to give a brief idea of the progress achieved during its short existence.

TABLE I. Quantity of fruits marketed.

	Year.	Oranges.	Mangoes.	Limes.	Sapotas.	Total No. of baskets.			
-		(in baskets)							
1.	1937-38.	9,258	651	364	****	10,273			
11.	1938-39.	20.376	1000	704	85	21,165			
111.	1939-40.	30,823	292	399	104	31,618			

TABLE II. Progress of the Society from date of starting.

Year.	No ofmembers	Share capital paid up.	Borrowing from Cuddapah Central Bank.	Loans issued.	Value of fruits exported.	Profit or loss.	Commission earned.
		Rs.	Rs.	Rs.	Rs,	Rs.	Rs.
1936-37	25	1,535	Nil	Nil	Nil	53 (loss)	Nil
1937-38	108	2 795	35.115	42,635	30,004	853	1,405
1938-39	173	4,325	49.889	62,025	83,175	1,800	5,270
1939-40	230	6.156	27,559	32,405	89,775	(not audited)	5,610

The Society has got its headquarters at Rajampet and a branch at Kodur. Ungraded fruits are at present consigned to the Madras Provincial Co-operative Marketing Society at Madras, which after grading disposes off

the fruits quickly. The Marketing Society also despatches oranges by arrangement to various centres in Southern districts such as Trichinopoly, Tanjore and Madura according to demand. A commission of Rs. 0—1—0 is charged for every rupee of gross sale by the Fruit Growers' Society, of which one-fourth of the commission is paid at present to the Provincial Marketing Society.

The Society has been able to exploit new markets and thus widen the distribution of Sathugudi oranges, and by this means has been rendering a very valuable benefit to the orange industry as a whole. Paid representatives are now posted by the Society at (1) Anantapur, (2) Hindupur, (3) Hyderabad (Deccan) and (4) Bangalore. Through posters, hand-bills, articles and advertisement in the press, a vigorous drive towards popularisation of oranges in the daily diet of the people has also been taken up.

Grading of fruits was tried and the result has been sufficiently encouraging as to enable the adoption of the sale of graded fruits in a number of South Indian markets. The society has achieved a big success in creating a demand for graded fruits from moffusil co-operative societies. It was only after the society was started that grading of oranges was taken up. Now the demand from moffusil centres is only for graded and standardised oranges. The society intends starting grading stations with orange grading machines at important fruit producing areas in Rajampet Taluk, and consign such graded oranges directly from production centres to consuming areas, which seems to be the most logical and economical way of marketing oranges. Through this innovation and wide publicity, the consumers have been educated to demand more and more graded fruits of standardized quality.

Two spraying machines have been ordered by the society for meeting the demand of its members for controlling pests and diseases in their orchards. Co-operative purchase of growers' requirements, particularly in the matter of purchase of fertilizers is being attended to. With the loan of the services of a Junior Inspector who is a graduate in Agriculture, for a period of 15 months during the initial stages of work of the society, advisory work in the maintenance of crchards has formed a useful line of activity. This officer serves also as a link between the Fruit Research Station, Kodur and hundreds of fruit growers. In due course, a number of other useful lines of works for the effective improvement of growing and marketing sides of Sathugudi orange industry are also expected to be undertaken.

Co-operation in relation to fruif growing and marketing is novel, in so far as this province is concerned. It is therefore not surprising that the success achieved by the Kodur Fruit Growers' Co-operative Society has attracted wide attention and several requests for the bye-laws of the Society and for advice on the organisation of similar societies elsewhere have come in both from within the province and outside. The following extracts of the bye-laws of the society may therefore be not without interest.

Objects.

Bye-law 2. The objects of the society are: -

- 1. To encourage self help, thrift and co-operation among members,
- to act as agent for the joint purchase of agricultural requirements of the members,
- to teach members improved methods of cultivation of fruits and to supply seed material, manure, nursery plants, grafts, implements etc. for growing fruits,
 - 4. to arrange to sell the fruits grown by members to the best advantage
- to undertake such other activities as are incidental or conducive to the development of fruit growing by demonstrations propaganda etc., and
- to give to the members advances to afford facilities to members to the growing and marketing of fruits grown by them.

Business of the Society.

Bye-law 39. It shall be the duty of the board of directors to arrange for the sale of the fruit or other products of members to the best advantage at places of consumption. Any member who fails to transact his produce through the Society shall be liable to a fine in the first instance which the Board of Directors may impose. If the failure is persistant the member is liable for expulsion by the general body.

Loans.

Bye-law 43. Temporary advances may be given at the rate of not exceeding 6½ per cent as determined by the Board of Directors from time to time when necessary for a period of 12 months to afford facilities to members to grow and market fruits or to liquidate petty debts previously incurred for that purpose. Every such advance must be supported by the pledge of the standing crop belonging to the member together with the collateral security of at least one solvent surety. The amount of advance shall not exceed 40% of the then market value of the estimated out-turn. When the return of the advance is not made within 12 months the Board of Directors shall take steps to recover the amount irrespective of the above period at any time if such a step is deemed necessary by taking action as laid down in bye-law 51.

Bye-law 44. Loans may also be given to members on the security of their deposits, on the security of Government securities, or on the mortgage of un-encumbered immovable properties of the members up to 60% of their value when such loans are required for such useful purposes that will improve the growing of fruit trees. Interest on such loans shall be charged at $7\frac{1}{2}\%$.

In the organisation of this Society and in every branch of its activity the Co-operative and Agricultural Departments (particularly the Marketing Section and Fruit Research Station, Kodur) have undoubtedly played the leading role. Among the members, the moving and dynamic spirit for the success of the Society has been that of the Secretary, Sri. V. R. Satyanarayana and the President, Sri. P. V. Pattabhi Rama Reddy.