

MANGOES IN CIRCARS, MADRAS.

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The mango is the most popular fruit in the Circars. Its luscious taste and agreeable flavour have won the appreciation of one and all. In the Circars its consumption is universal as no other fruit is so cheaply available as to be within the reach of the rich as well as the poor. The production and marketing of this fruit is mainly concentrated in the area comprising the districts of Vizagapatam and East Godavari. During the past decade there has been a considerable production of mangoes, as large areas of cultural waste land were brought under the cultivation of this fruit crop. The availability of these lands at attractively cheap rates besides being admirably suited for the purpose, formed an important economic asset.

Acreage and Production.

The presidency of Madras has an area of 2,50,000 acres under mangoes with an annual estimated production of 20,000,000 railway maunds. As much as a fourth of this production is from the districts of Vizagapatam and East Godavari of the Circars, where a total area of 65,200 acres is utilised for this crop and the two districts share the area almost equally. Largest areas are concentrated in the taluks of Vizianagaram, Anakapalli and Sarvasidhi of the Vizagapatam district and Pithapuram, Tuni and Rajahmundry of the East Godavari district.

Cultivation of the crop.

Soil: The mango is not exacting in its soil requirements and thrives in all well drained and high level soils. The fruit grown on the red sandy soils of the Vizagapatam district is considered generally more tasty than that from other soils. In heavy and rich soils the trees grow very vigorously with vegetative growth at the expense of fruit development.

Propagation: Trees raised from seed are as a rule not true to type. In recent years gardens are raised entirely with grafts obtained from reputed nurseries of the area. The most popular method of grafting in the area is 'Inarching'.

Season and planting: The best season for planting in the area is July, soon after the break of the South West monsoon. The land is thoroughly cleared of the vegetation and is ploughed with a country plough. About 4 to 6 ploughings are considered sufficient to bring the land to planting condition. Pits are then

dug out at suitable distances and kept exposed for a month before planting. At distances of 10, 12 and 15 yards, an acre takes in 48, 34 and 22 plants respectively. The grafts are taken out from pots without disturbing the ball of earth around the roots and these are planted in the pits. An important precaution is to avoid deep planting. Different varieties or groups of varieties known to bear at the same time are invariably planted in different blocks.

Manuring: At present proper manuring of the gardens is the most neglected part of grove culture. During the first 3 or 4 years a few baskets of well rotten farm yard manure or green leaves are sometimes spread all round the trees and incorporated into the soil. Manuring of the young plants or at the time of planting is not an accepted practice.

After care: This consists in the first place affording adequate protection to plants from cattle or goats. Secondly they are watered carefully at necessary intervals during dry and hot weather, for the first three years. During the first three or four years, low crops such as horse-gram and groundnut are cultivated as inter crops. Application of green manure at the commencement of the rains during the period is however not uncommon. An essential part of orchard management thereafter consists in clean cultivation of the interspaces by one or two ploughings a year.

Profits: A graft mango garden commences its bearing from its fifth year of planting and remains in good economic bearing for 10 to 12 years under good management. The cost of raising a graft mango garden in the area (pre war) will be Rs. 5 to 6 per tree upto the bearing stage. Thereafter an average income of Rs. 3 per tree may be taken to be a very modest estimate. The main contributing factors for low incomes are the large uneconomic and unmanageable holdings, neglected part of orchard management, varying capacities of trees arising from planting of unreliable grafts and incidence of unfavourable climatic and weather conditions leading to heavy fruit fall or poor bearing of the orchards.

Utilisation and demand.

A remarkable feature of the mango production in the area is that it is confined to a few standard commercial varieties reputed to be productive and fairly good and regular in bearing. Of the total production nearly 35% finds export outside the province and about 20% is utilised to meet the requirements within the province. The rest answers the local demand within

the production zone. Of the fruit that finds export outside the province the variety '*Suvarnarekha*' distinguishes itself by its attractive appearance and inviting flavour and as such commands a universal demand. Though '*Banganapalli*' is much favoured in the Godavari district it stands next to '*Suvarnarekha*' in the markets of Northern India and Vizagapatam district.

Season and Varieties.

The marketing season for mangoes commences with the first week of April and ordinarily extends up to the middle of June and rarely to the end of July. The supply is at its peak for a period of five or six weeks during May-June. In respect of varieties, the market opens with early juicy varieties '*Rajamanu*' and a few other non-descript fruit of the country seedling types towards the end of March. Among juicy varieties the various types of '*Rasalu*' of the Circars deserve special mention. The '*Suvarnarekha*' an early variety comes for sale by the end of April and remains for a period of six to eight weeks. The '*Banganapalli*' and '*Banglora*' are late season varieties and these get into the market by the second week of May and last till the end of June. The '*Nilam*' a very late season variety comes to the market in the month of July and towards the end of this month the mango season of the area comes to a close. The fruit of certain choice fruiting varieties like the '*Himaruddin*' and '*Jehangir*' are very limited and are sparsely seen in the local markets of the area. Within the short producing season of 2 to 2½ months all the varieties finish their sales with a certain degree of overlapping of the varietal production.

Assembling and Distribution.

Of the important stations from which large quantities of fruit are annually exported Vizianagaram, Kottavalasa, Alamanda, Anakapalli, Tuni, Samalkot and Rajahmundry deserve special mention. Each of these stations constitutes an important export centre for the fruit that gets collected from the gardens in its neighbourhood. The consumer is generally separated from the producer by three agencies. One is the garden contractor who assembles the fruit from the gardens at the nearest marketing centre. The second is the broker who transacts business with the local retailer or distributor who directly deals with the consumer or at times through another middleman. The garden owners in the first place lease out their gardens to garden contractors on a contract long before the season in January. Usually the terms of the contract stipulate the payment of $\frac{1}{3}$ of the amount at the time of agreement, another $\frac{1}{3}$ before the fruit is picked and the rest towards the middle

of the harvest season. In most cases they do not pay the garden owners in full as per contract but withhold large sums (30 to 35%) of the money on the pretext that they have incurred heavy losses owing to poor bearing, heavy fruit fall and low market prices. The contract system is thus weak in its constitution and invariably bring the owner and the contractor into dispute.

Transport and Produce Movements.

The fruits are usually picked soon after they attain maturity. As a rule all the varieties intended for export are harvested a week before they are known to become soft for purposes of consumption. The garden contractors within the reach of the market (5 to 6 miles) send the fruit harvested on the previous evening, to the market on the next day and woman coolies usually bring the fruit in baskets. Fruits from gardens situated beyond six miles are brought in double bullock cart which holds 2,000 to 2,500 fruits. The fruit intended for export is packed with paddy straw in bamboo baskets holding about 60 fruits each. For export to markets within the province they are sent by goods train and to all places beyond the province they are booked by passenger train and parcel express. Under the existing defective methods of harvesting, packing and handling at various stages as much as 15 to 20% of the fruit suffers damage. The fruit from the area is known to move as far as Peshawar and Delhi. A very large percentage of the fruit finds ready sale in Calcutta. The recent railway line connecting Raipur and Vizagapatam has facilitated the export of the fruit to Raipur and its surroundings.

Grading.

At no stage in the entire trade, grading of the fruit is either attempted or allowed. In fact the sale of the mixed fruit of different sizes is an accepted condition of the transaction between the contractor and the buyer. While exporting out of the 50 to 60 fruits usually packed in a single basket, one can pick out only 10 to 12 well sized fruits, which are usually placed at the top; the rest being immature and of varying size. However in retail sale at the local market the vendors classify each variety into two or three groups according to the size. This is only practised with a view to meet the varied purchasing capacities of the rich and the poor but not on any scientific basis in true realisation of the economic value of the process. The packing of ungraded fruit at present markedly reduces the value of the high class fruit of the varieties '*Suvarnarekha*' and '*Banganapalli*'. Further it leads to suspicion and seldom fetches the price it actually deserves.

The Marketing section of the Department of Agriculture, Madras, during the past three years made attempts to impress on the traders and exporters the value of the grading process under the 'AGMARK' scheme. The writer's enquiry on the possibilities of grading revealed the existence of certain difficulties. In the first place the producer (garden owner) after leasing out his garden ceases to function in all important phases of the marketing and thus his interest does not go beyond trying to secure as much of the contract amount as possible. The interest of the middleman and other traders is limited to the securing their respective margin of profits to the maximum. The consumer is not particular to buy only graded fruit. As long as buyers do not insist on the purchase of the graded fruit and the producer maintains absolute indifference in the marketing of the fruit, the middlemen and the brokers rule the market and continue their old and unhealthy practices to the disadvantage of the both the producer and consumer.

Organisation Needed.

The interest of the orchardists of the area ceases with the production of the fruit and till today there has hardly been any satisfactory attempt on their part for organised marketing of the fruit. At present there is a wide disparity between the price received by the grower and the price paid by the ultimate consumer. This is due to the uneconomical system prevailing at present which countenances the existence of a post of middlemen between them. The middleman of the trade absorbs a major part of the inflated price, which the consumer pays, the share left to the grower is anything but satisfactory. The improvement of the present system of marketing with a view to enhance the producer's share of the profit calls for organised marketing and direct participation of the grower in the disposal of the fruit without the interference of the middleman. This can best be accomplished by the producers organising themselves into Co-operative Export Society for each centre of trade which in turn may all be affiliated to a central organisation. This ensures concerted action on their part in all vital matters and prevent unhealthy competition among themselves. Such direct interest of the producers not only renders grading an easy job but enables the elimination of the middleman — the cancer of the marketing problem.