CHAPTER - VII

SUMMARY FINDINGS AND SUGGESTIONS

Agriculture is the largest and most important industry in India. But its contribution is only about 34.2 per cent to the national income. With a view to increase the contribution of agriculture to national income and to the income of the farmers, the government encouraged the cultivation of horticultural crops like banana, mango, vegetables, flowers etc. Banana is an important energy-producing food as well as good source of minerals and vitamins. It also provides more calories. Among fresh fruits banana occupies the second place in importance both in terms of area of cultivation and production. India has become the second largest producer of banana with more than 10 percent of world production.

Among the districts of Tamilnadu, Tiruchirappalli occupies the first place both in the area of cultivation and production.

The cultivation of wide varieties of banana consequently results in increase in the area of cultivation. With the result the growers are facing the problem of production and marketing. Difficulty in
getting pest resistant quality suckers, increase in the cost of cultivation, inability to protect the crops from cyclone are some of the production problems faced by the growers. Moreover the growers are also facing the problems of marketing due to uneconomic transport cost, inadequate marketing structure and the problem of finance.

CHAPTER II

Banana is cultivated in wet lands in more than 80 percent of the sample area by 69 percent of the sample growers. Among the sample growers 49.2 percent are marginal farmers, 32.4 percent are small farmers and 18.4 percent are big farmers.

Regarding the varieties cultivated poovan tops with 43 percent of area under banana cultivation followed by rastali with 31 percent and nenthiran 15 percent, robusta and karpuravally accounting for the rest. Poovan variety followed by rastali is preferred by all the three types of growers. There is no correlation between the variety cultivated and size of the farmers.

Planting of new suckers is undertaken in three seasons viz, April/May (Sithiraippattam) July/August (Adipattam), January/February (Thaippattam). Though planting of new suckers is carried out throughout the year except during September, October
and November, the preference is more during January/February (Thaipattam). This is so because the growers are able to harvest just before the Pongal festival and get better price for their bunches. Moreover the plant, when it is young in the month of April/May will not be affected by gales.

Frequency of irrigation varies depending on the season. Grower's dependence on the borewell irrigation either owned or hired increases the cost of irrigation. Majority of the respondents are in the habit of using natural manures like tank silt and silt from the trench. Their preference for farm yard manure is less due to the higher cost. Out of the 250 respondents 138 respondents (55%) apply chemical fertilizer twice, 58 respondents (23%), thrice and the remaining 54 respondents (22%) only once. Earthing up operation is undertaken to control the weeds.

Propping of the banana plant is not practised by 158 (63%) respondents. 208 respondents (83%) are unaware of the crop Insurance Scheme. Majority of the growers of banana are not able to get the needed finance, and the available finance is inadequate to meet the increased cost of cultivation. Inspite of the recommendation by the Department of Agriculture, inter-crop cultivation is not favoured by many respondents as
they feel that such cultivation may affect the growth of the banana plant.

CHAPTER III

The analysis of cost of cultivation reveals that the total cost of cultivation per acre (both fixed and variable) is Rs.14,566/- to the land owners and Rs.13,156/- to the cultivating tenant. Cost of cultivation is higher to the land owners than the cultivating tenants.

A comparison of the cost of cultivation between the first crop and ratoon crop, reveals that it is higher for the first crop (Rs.16,591.68 per acre) than it is for ratoon crop, (Rs.11,901.19 per acre) due to certain additional expenses like cost of suckers, planting of suckers, ploughing the land, etc..

Small farmers incur the highest variable cost of Rs.5,788.49 followed by big farmers Rs.5,465.34 and Rs.4,541.35 by the marginal farmers. Fixed cost is the highest to big farmers with Rs.10,453.09 followed by small farmers with Rs.8,312.32 and Rs.5,830.36 in the case of marginal farmers. The same trend is witnessed when the analysis is extended to the total
cost. Taluk wise analysis of the variable cost reveals that it is the highest in Musiri taluk with Rs.6,017.57 followed by Rs.5,795.80 in Lalkudi taluk, Rs.4,776.56 in Kulithalai taluk and the lowest of Rs.4756.95 in the case of Trichy taluk.

In the case of fixed cost, it is the highest in Musiri taluk with Rs.10,589.88 followed by Lalkudi taluk Rs.10,259.60, Trichy taluk Rs.6,816.05 and Rs.6,540.70 the lowest in the case of Kulithalai taluk. Total cost analysis also reveals that it is the highest in Musiri taluk (Rs.16,607.45) followed by Lalkudi taluk (Rs.16,055.40), Trichy taluk (Rs.11,573.00) and Kulithalai (Rs.11,317.26).

Variety wise analysis reveals that the variable cost is the highest in Nenthiran variety with Rs.6,010.83 followed by Rastali variety with Rs.5,813.95 and the lowest of Rs.4,729.21 in the case of poovan variety.

But the total fixed cost is the least in the case of poovan variety with Rs.5,830.52. For rastali variety the total fixed cost is the highest (Rs.10,519.43) followed by nenthiran variety (Rs.8,532.20).
An analysis of the comparison of the total cost discloses that it is Rs.16,333.38 the highest for rastali followed by Rs.14,503.30 for nenthiran and Rs.10,559.73 the lowest for the poovan variety.

From the analysis of the income of the cultivators it is seen that the income of the tenant cultivators is higher than the income of the owner cultivators. Likewise the income from the first crop is more than the income from the ratoon crop. The average income per acre to the marginal farmer is Rs.17,063.56 the lowest while it is 20,047.02 to the small farmers and Rs.20,022.21 to the big farmers. The income is the highest in Musiri Taluk followed by Lalkudi, Trichy and Kulithalai Taluks. From the varietywise analysis it is clear that the average income is the highest from rastali (Rs.22,189.01 per acre) followed by nenthiran (Rs.21,650.00) and the lowest is in poovan variety (Rs.14,310.00).

Farm profit is more to the tenant cultivators than to the cultivators of owned land. An analysis of the profit on the basis of the category of farmers reveals that the profit is the lowest to big farmers. This is mainly due to increase in the input cost. The profit for the small farmers is somewhat reasonable when compared with other two categories of farmers.
The analysis of profit on different sample area reveals that the profit is more or less equal, though there is variation in the input cost and output cost. The return on investment is higher in Trichy and Kulithalai taluks than in Musiri and Lalkudi taluks because of low input cost.

Profit on nenthiran variety is the highest followed by rastali and poovan.

CHAPTER IV

A marketing channel may be characterised by the number of channel levels. The length of the channel depends on the number of intermediaries in the channel. A channel may vary from zero level to three level. For effective distribution multiple channels are used. Since banana is perishable it is to be marketed quickly, hence more intermediaries are involved.

Channel members are those who are involved in the chain of distribution. They are as follows:

1. Producers
2. Pre-harvest contractors
3. Auctioneers
4. Co-operative Marketing Society
5. Regulated Market
6. Wholesalers
7. Retailers
8. Petty traders
9. Street vendors
10. Consumers.

The first marketing operation starts from the stage of cutting the bunches. This function is carried out either by the growers or by the Pre-harvest contractors who carry out the marketing operation. Use of plastic covering, enclosure of bunches in paper or straw parcels, packing in boxes are some of the methods of packing in banana trade. In the study area only naked bunches are transported using dry banana leaves as cushion material on the floor of the vehicle.

The majority of the growers (52%) bring their bunches of banana to the market and are able to sell them with the help of the auctioneers, Regulated market and Co-operative Marketing Society. The remaining 48 percent of the sample growers depend on contractors and wholesalers.

The function of transportation is carried out by the growers using different modes of transport like van, lorry, tractor, bullock cart, bicycle and by head load by human labour. Out of 130 growers, 31 per cent of them, who are mostly small and marginal growers,
use human labour and bicycle since they are very near to the market. 55 percent depend on bullock cart, 8 percent use lorries/Tractors and 6 percent use vans.

The role of finance in marketing is significant to the growers as well as to the traders. Growers are not able to raise adequate finance for cultivation and hence borrow from the contractors. So they are forced to sell bunches to the contractors at low prices. Moreover they are in need of finance for cutting of bunches, packing, loading and transportation of banana. The wholesalers and contractors are able to manage with their own funds or get trade credit. The problem is more with regard to retailers. Very often they borrow from money lenders and find it difficult to repay.

Absence of storage facilities, especially cold storage for banana forces the growers to sell at low prices. The function of grading is undertaken on the basis of size of the bunches and the size of the fruit, unlike Bombay and Kerala where grading is done on the basis of the weight of the bunches.

CHAPTER - V

An analysis of the role of pre-harvest contractors reveals that the contractors get finance from auctioneers and wholesalers, and buy bunches on
credit from growers, disclosing their dependence more on borrowed capital than own funds. 64 percent of the contractors get financial assistance from the wholesalers/auctioneers. 28 percent of them get finance from private sources. 8 percent of the contractors depend on their own funds. They sell mostly to the wholesalers or through auction. The payment to the grower is made by the contractors in two or three instalments. The first instalment is paid (as advance) at the time of entering into contract. The second instalment is paid in the middle of the harvest and the third at the end of the harvest. 39 percent of the sample growers prefer preharvest contractors to dispose of their bunches as they are relieved from the burden of marketing.

Auctioneers are shift agents, who serve on certain commission. Grading of bunches is done by the growers. The auctioneers provide credit to the contractors and growers and collect 10 per cent of the sale price as commission. The volume of business is based on their investment, rapport with the contractors, and growers and the promptness in making payment.

The Co-operative Marketing Society, Kulithalai conducts banana auction in Lalapet and
Kulithalai. The co-operative marketing society Musiri conducts banana auction in Thottiam. After the auction the amount due from the trader is collected on the same day or on the next auction day depending on the traders standing. A service charge of 5 per cent from the traders, and from 1.7.90 onwards an additional commission of two percent from the growers are collected. The payment to the growers hitherto made out of society's fund is discontinued reducing the arrivals to the Co-operative Society. The continuous decline in arrival to the co-operative society indicates their poor performance.

The Regulated Market, another intermediary at Kattupputhur conducts banana auction twice in a week. The arrival of bunches of banana has increased over the years. The researcher, through personal inquiries, was able to make the following observations.

The traders from distant markets like Athur and Salem participating in the auction are limited in numbers, i.e., ranging from 3 to 5. They buy mostly average and below average sized Poovan and Rastali varieties. The number of bunches purchased by each trader is around 400 to 600. Traders from Kattupputhur and nearby villages are mostly petty traders who buy only 25 to 50 bunches each. Hence the growers depend
more on the traders of distant market for disposing their bunches of banana.

Majority of the wholesalers (74%) dispose their bunches mostly in distant markets, like Salem, Bangalore, Coimbatore, Palghat and Kannanur (Kerala). The remaining 26 per cent dispose of their bunches in the local market. Regarding financial requirement 24 per cent depend on trade credit from auctioneers, 30 per cent on private loan, 12 per cent get bank assistance and the remaining 34 per cent of wholesalers depend on their own funds. In addition, the working capital used by most of the wholesalers is around Rs.10,000/-.

Among the retailers selected as sample 15 have fixed shops, 15 have pavement shops and 20 are street vendors. Their credit needs vary from Rs.500 to Rs.1000 for fixed shop retailers, Rs.100 to Rs.250 for pavement vendors and Rs.50 to Rs.100 for street vendors. These retailers depend mostly on trade credit and money lenders for their credit needs.

The opinion score analysis reveals that the services of pre harvest contractors are preferred by the small farmers, while the services of wholesalers are preferred by the big farmers. But the marginal farmers have the highest satisfaction regarding the
services of auctioneers, Regulated Market and Co-operative Marketing Society.

CHAPTER - VI

Price is the exchange value of goods and services. The pricing of perishables is generally a demand oriented one. In Trichy Gandhi Market the price per bunch fluctuates from Rs.27 to 46.00 during the period under study. The minimum price per bunch was Rs.27.00 during 1985-86 whereas it is Rs.35 during 1991-92. The maximum price was Rs.32.00 during 1985 while it was Rs.46.00 during 1991-92. Regular arrivals from places like Pudukkotai, Thanjavur etc., facilitate steady price movement without wide fluctuations.

An analysis of the seasonal indices of price movement in the Gandhi Market, Tiruchirappalli indicates that January to March is the season of maximum price and July to September is the season of minimum price.

The price movement in the Kattupputhur Regulated Market was on the increasing trend and the average price moved from Rs.10.50 to 47.50 between 84-85 and 86-87. From 1987-88 onwards the price started declining and it reached Rs.18 during 1991-92.
Absence of competitive bidding, attraction by private traders and village contractors, commencement of co-operative auction centre at Thottiam and popularity of the Mahanur Market resulted in the use of regulated market mostly for selling residual bunches by the growers. These are the reasons for the decrease in the monthly average price after 1987.

Calculation of seasonal indices of banana prices in the Regulated market, Kattupputthur reveals that the price is at the maximum level during April to June and the price is at the minimum level during October to December.

The price fluctuation in Lalapet, Kulithalai, and Thottiam, Co-operative Societies was limited. This is so because the demand was more or less uniform and was more from the local traders. Moreover the co-operative marketing society started collecting 2 per cent service charge from the growers since July 1990. This discouraged the growers to sell their bunches through marketing society.

The analysis of price spread revealed that the retailer's margin is from 8 to 13.33 per cent. The retailers margin is the lowest (8%) in the case of the rastali variety (above average size) sold at Madras and the highest (13.33%) at Bangalore.
The wholesaler's margin is around 10 per cent in most of the cases. But in the case of Rastali and Poovan varieties (average size) sold at Madras and the sale of poovan variety in the local market, it is only 5 per cent.

The contractor's margin varies from 5 per cent to 10 per cent when sold in the distant markets and it is only 3.57 per cent when sold in the local market.

Growers are able to get 60 per cent of the consumer price in the case of the Rastali variety and 46.67 per cent of the consumer price in the case of the Poovan variety. Growers are able to get 58.30 per cent of the consumer price when they sell through regulated market as the service charge collected by the Regulated market is only 1 per cent from the trader.

The selling of the Nenthiran variety in Kerala markets involves high transport cost. The producers share in the consumer price is only 48.57 per cent in the case of the Nenthiran variety which is sold in Kerala because of the heavy transport cost. But those who directly sell in Kerala market get more than 50 per cent of the consumer price.
Suggestions

1. The Tamilnadu Agricultural University should maintain a farm in Trichy Banana Research Centre exclusively for supplying suckers to the farmers. This will atleast meet part of the requirements of the Banana growers of Trichy district.

2. The growers should be advised by the agricultural department about the need for planting the suckers in a season which will not expose the plant to cyclone. Planting in January/February is more suited because the cyclones that hit in April/May will not affect the young plants. In those areas where the possibility of cyclone is less, the planting can be undertaken throughout the year.

3. All the growers should be advised to plant tall varieties like, monthan, Karpuravalli etc., at the edge of the garden so as to protect the plants from winds of high velocity. Sesbania or Jantar should also be planted on the fence which should be 15 feet away from banana rows.

4. Growers may be educated about the importance of propping and persuaded to prop the banana to minimise the loss arising out of cyclones.
5. Bank assistance may be provided to the growers at a reasonable rate of interest so as to enable them to buy the propping materials.

6. Explaining the benefits of crop insurance scheme, the growers may be persuaded to take crop insurance so as to minimise the risk arising out of natural calamities.

7. The cultivation of certain short duration crops like green gram, black gram, soya beans etc., in between the rows of banana plant in the initial period is to be encouraged among the growers of banana. The growers feel that such intercrop cultivation may affect the growth of the banana plant. This fear is to be removed from the minds of the growers by proper instruction and field demonstration.

8. To increase the shelf life of fruits the growers/marketers can adopt the method of 12% Wax emulsion coating on the detached hands. This will increase the shelf life for 5 more days in room temperature and 10 to 12 days more in refrigerated storage.
9. For proper standardisation the Government should insist on the traders to trade banana on the basis of weights instead of bunches. This will enable the grower to get a reasonable price for their bunches.

10. Small and marginal farmers may be educated to apply fertilizers as recommended by the Department of Agriculture to have higher yield and return.

11. The Co-operative farming can be undertaken, wherever possible. This will enable the growers to minimise the fixed cost of cultivation like, cost of machine power, depreciation of such machines and agricultural implements, interest on fixed investment etc. If the fixed cost of cultivation is reduced, it will reduce the input cost. This will increase the average profit per acre.

12. Permitting outside traders to take part in the auction at the Gandhi Market will pave the way for competitive bidding and consequently increase the prices offered to the grower.