A Study on the Performance of Bee-keepers Co-operative Society in Marthandam

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ABSTRACT

Bee keeping is an age - old tradition. It is considered as a non - investment profit giving venture in most areas. Even now, apiculture survives in certain areas with little or no management, with honey being robbed from bee colonies, during the season. However, in the recent past it has been recognized that bee - keeping has the potential to develop as a prime agri - horticultural and forest based industry. In India some places are popular owing to the existence of a particular industry or availability of a certain commodity. In that sense, Marthandam is a place in Kanyakumari District which is famous due to the availability of honey in plenty. Most of the people belonging to Marthandam and the surrounding areas have bee - keeping as their occupation. In fact, Marthandam flourishes in honey production and more than that, it provides employment opportunities to many people. Although honey and honey bees have been known to human beings long before and unlike several other rural industries, it is not a traditional enterprise in India. In India, the first movable frame hives were for domesticating bees in Bengal in 1882. Honey is a natural product that has no substitute. In view of this, in many countries the laws or acts of the Government define honey as a sweet liquid prepared by honey bees from nectars of plants after addition of their digestive enzymes and causing natural physical and chemical processes. Although honey was first used by man perhaps as a sweet food, it is used not only for its food value, but also for its medicinal and therapeutic properties and for its characteristic flavor and taste. Other food sweeteners like the high fructose corn syrup, jaggery or molasses syrups can never be likened to honey and they serve only as simple sweet and nutrition substances. Comb honey is produced by the bees in small rectangular boxes and sold in this way as produced by the bees. Extracted honey is the liquid honey or raw honey thrown out of the cell, leaving the comb as good as ever. The comb is put back in the hives and filled again by the bees. For this reason, the extracted honey is cheaper as the bees do not need to build a new comb each time.

INTRODUCTION

Bee keeping refers to the domestication of honey bees for the purpose of obtaining honey and other useful products such as bee wax, pollen and royal jelly. Beekeeping is a low-cost technology with high potential of economic returns. Generally, farmers and other workers taking part in agricultural operations mainly carry out bee keeping as a part-time work. Bee-keeping can be taken up both at household and commercial levels to generate additional income to the marginal farmers, landless labourers and other weaker sections of the society. Organizations like the Young Men Christian Association (YMCA), Indian Institute of Honey, All India Village Industries Association etc pioneered the bee keeping extension programmes. A number of Bee-keeper's Co-operative Societies are working today in India. The Khadi and Village Industries Commission and various State Industrial Boards have nurtured this Industry.

The production of honey is seasonal according to the climatic conditions may be from February to April, every year. Honey is very much short of supply in India. Bulk amount of honey is produced in Kanyakumari District of Tamilnadu, Trivandrum, Calicut, Canoor district of Kerala and Karnataka State.

Rubber Board is also engaged in the promotion of bee - keeping among rubber farmers by imparting training in bee-keeping and subsidizing the establishment of new bee-keeping units. In 2012-2013, there were 54 rubber approved agencies, which were spread all over Kerala and Kanyakumari District of Tamil Nadu. Bee - keepers cannot store, process, pack and market their produce and thus need the support of industry for proper growth of Bee-keeping. Honey is required to be processed and standardized to meet the domestic and international standards. The industry also has the important function to study market trends for honey, which is a world commodity.

Honey is a natural unmanufactured food. The average composition of honey is: Water - 17.70 per cent, levelose - 40.05 per cent, dextrose 34.0 per cent, sucrose 1.9 per cent, dextrins and gums 1.51 per cent silica, iron, copper, manganese, chlorine, potassium, sulphur, phosphorus, aluminum and magnesium 0.18 per cent. It also includes aromatic compound, colloids, pollen etc. contributing to the colours, taste and flavour of honey. Honey contains several vitamins viz ascorbic acid, niacin, pantathenic acid, riboflavin and thiamine.

NEED FOR THE STUDY

There are number of co-operative societies and co-operative Banks in Kanyakumari District. Bee-keeping Co-operative Societies are also registered under the Co-operative Societies Act, but they perform different functions compared to other societies. They have an important role in production and sale of different products such as bee-wax, honey and bee-keeping equipments.

As it is unique in nature the topic "A Study on the Performance of Bee-keepers Co-operative Society in Marthandam" is selected for the research work.

STATEMENT OF THE PROBLEM

Eighty per cent of the honey produced in Kanyakumari District fails to get special grade quality. The reason for this is that it contains more than twenty two per cent moisture, since some of the bee-keepers are using camphor in smokers. This affects the honey production, because it reduces the number of bees in the hive. The individual bee – keepers should get honey grading license from the Marketing Directorate of the Government of India. But small bee – keepers cannot even think of getting the license because it is a tedious process. The grants and subsidies given by the government under its various schemes are not made publically known. The price for honey prevailing in the market is not a fair price to the bee-keepers. Lack of transport facilities for migrating bee colonies and taking back extracted honey to the markets is a serious problem

faced by the bee - keepers in Marthandam. The bee – keepers suffer due to the non-availability of expert knowledge in bee – keeping.

REVIEW OF RELATED STUDIES

Neelima R. Kumar (2005) in his article, "Bee-keeping for self employment" points out that bee-keeping is one of the low cost technologies with high potentials for economic returns. The new innovations in the field of equipments and methods are used for easy obtaining of honey.

Palanichamy, M. (2007) in his article, "Bee - keeping as a business" points out that, "Bee - keeping is important to increase crop yield and cross pollination. It gives pure and natural honey. Besides, it is one of the remunerative subsidiary occupations. For most of our farmers' bee - keeping is the sole occupation to earn size able money.

Muniandi. K, (2010) in his article, "Honey the life giver" points out that honey is both an item of food as well as medicine. Its glucose extent is easily digestible and mixes with the blood directly on consumption.

Gnana Rajan. N. (2017) in his research "A study about production and marketing of honey in Kanyakumari District" points out that in Kanyakumari with its evergreen forests. Bee - keeping is a major occupation, and it is a low cost technology with high potentials for economic returns. Bee - keeping is carried at house hold and commercial levels to generate additional income and employment.

Sheela Seema (2017) in her research points out that this industry has now reached a significant stage in development and holds a place of pride in the industrial and trade structure of the state. In the industrial scene of India, Industrial co-operatives occupy an important place encouraging small, medium and large industries.

SCOPE OF STUDY

The present study is restricted to evaluate the production and marketing problems of Bee - keepers Co - operative Society in Marthandam and to suggest remedial measures to overcome the problems.

OBJECTIVES

The objectives of the study are as follows:

1. To analyse the production cost of honey and bee-keeping equipment produced by the farmers
2. To study the trend of production of honey and bee-keeping equipment in Marthandam Bee - keepers Co -operative Society.
3. To give suggestions to improve the performance of bee-keepers in Marthandam Bee - keepers Society

METHODOLOGY

Collection of data

The study is mainly based on secondary data. The secondary data has been collected from journals, magazines, newspapers and text books. Internet is also a major source of secondary data. The official data required for the study such as production, sales and profit and loss account of the Honey Co-operative Society were collected from the records of the societyand provided for 5 years from 2012-2013 to 2017-2018.

Tools of Analysis

The collected data were analysed with the help of various statistical measures such as percentage, trend analysis and correlation.

OPERATIONAL DEFINITIONS OF THE CONCEPT

Some of the main definitions are given below:

Bee - keeping: The provision of a home and suitable locality confined to the rearing of the bees belonging to the class of Indian bees of which there are many sub varieties.

Bee wax: A physiological product of honey bee produced by the glands under the abdomen.

Bee-keeping equipments: Equipements used for the purpose of rearing of equipment bees.

Honey: It is the sweetest substance produced by the bees from the nectar of blossoms or from secretion of living substances and stored in honey combs.

Pollen: It is the male ges plasm of plants. It is the chief source of protein fat and mineralsin the honey bee diet.

Nectar: It is a sweet secretion from the floral and extra floral parts of flowers.

LIMITATIONS OF STUDY

The study has been undertaken by the researcher to analyse the performance of Bee - keepers Co-operative Society in Marthandam. The limitations of the study are stated below:

1. The study is restricted to a period of 5 years.
2. The study is restricted to evaluate the production of honey and bee-keeping equipment by the Marthandam Bee - keepers' Co-operative Society Ltd.
3. The study has been made only at Marthandam Bee - Keepers Co - operative Society. The findings of the study may not be applicable to other societies.

MARTHANDAM BEE-KEEPERS CO-OPERATIVE SOCIETY

The Marthandam Bee - keepers Co-operative Society' was registered on 19th March 1937, under Travancore Co-operative Society Act (Act-V-of 1112) and started functioning from 14th April 1937. The area of operation of the society is confined to Kalkulam and Vilavancode Taluks of Kanyakumari District excluding Thiruvattar and Killiyor Panchayat Union areas. The main object of the society is to improve the bee - keeping industry and the economic conditions of the bee - keepers. The society was started in 1937 with 23 bee-keepers and has now increased to 1347 with paid-up share capital of Rs.2, 73, 946/-. The society has 26.5 acres of land with an own building and a storing-shed. The members of the society donated the storing shed during 1983.

ANALYSIS AND INTREPRETATION

Production of honey and bee-keeping equipment of Beekeepers' Co-operative Society are analysed to understand the performance of Marthandam Bee-keepers' Co-operative Society. A trend analysis of the production of honey and bee-keeping euipment of the Marthandam Bee-keepers' Co-operative Society has been made with the help of the exponential trend equation.

The details of production of honey and bee-keeping equipment for the period 2012-2018 are stated in the following table.

TABLE - 1 PRODUCTION OF HONEY (2012-2017)

S. No.	Year	Quantity (Kg. '000)	Amount (Rs. '000)	Cost per Kg
1.	2012 – 2013	253	11,899	47.03
2.	2013 – 2014	233	13,789	59.18
3.	2014 - 2015	190	9,605	50.55
4.	2016 – 2017	180	12,603	70.02
5.	2017 - 2018	173	13,250	76.59

Source: Stock Registers of Marthandam Bee-keepers Co-operative Society

The above table shows the production of honey for five years from 2012 – 2013 to 2017 - 2018. The production of honey has decreased from 2,53,000 kg in 2012-2013 to 1,73,000 kg in 2017-2018. The reason for this decrease in output may be attributed to the drought in the study area. The value of honey in 2013-2014 is the highest level (Rs. 1,37,89,000). Though production is only 1,73,000 kg the value is high (Rs. 13,250 thousand) compared to the previous years. Though the production of honey shows a decreasing trend the average value per kg is showing an increasing trend (Rs. 47.03 in 2012 -13 to Rs. 76.59 in 2017-2018). It is a good sign for the growth of this industry.

PRODUCTION OF BEE-KEEPING EQUIPMENT

Now-a-days the production of bee-keeping equipment by the society is very occasional because of the soaring cost of their production. The study throws light on the value of the bee-keeping equipment produced / purchased by the society for a period of five years from 2012-2013 to 2017-2018.

TABLE - 2 PRODUCTION OF BEE-KEEPING EQUIPMENT

S. No.	Year	Amount (Rs. '000)
1.	2012 – 2013	262
2.	2013 – 2014	245
3.	2014 - 2015	90
4.	2016 – 2017	112
5.	2017 - 2018	98

Source: Stock Registers of Marthandam Bee-keepers Co-operative Society

The above table reveals that the value of bee-keeping equipment produced/ purchased has registered a market variation over the years. During the year 2012 - 2013, it has risen to the

dizzy highest of Rs.2, 62, 000 and the lowest is seen in the year 2014 - 2015. One could witness the co-incidence of production of honey and bee-keeping equipment. This may also be a reason for decrease in honey production during the period of study.

TABLE - 3 ANALYSIS OF TOTAL PRODUCTION OF HONEY AND BEE-KEEPING EQUIPMENT

S. No.	Year	Honey		Bee-Keeping Equipment		Total Rs. '000
		Amount (Rs. '000)	Percentage	Amount (Rs. '000)	Percentage	
1.	2012 – 2013	11,899	97.85	262	2.15	12,161
2.	2013 – 2014	13,789	98.25	245	1.75	14,034
3.	2014 - 2015	9,605	99.10	90	0.93	9,695
4.	2016 – 2017	12,603	99.12	112	0.88	12,715
5.	2017 - 2018	13,520	99.28	98	0.72	13,618
Total		**61,416**		**807**		**62,223**
Percentage		**98.70**		**1.30**		**100**

The above table reveals that the production of honey is 98.70 per cent and bee-keeping equipment is 1.30 per cent of the total production.

COST OF PRODUCTION

Production cost includes the cost incurred in the fields of processing, labour and in using techniques of production. The society incurs expenses in the production of honey and bee-keeping equipments. The cost of production of honey includes raw honey, wastage, agmark test, oil, purifying charges, trade commission, miscellaneous expenses incurred in changing the raw honey into its pure form.

TABLE - 4 COST OF PRODUCTION OF THE SOCIETY

S. No.	Year	Amount (Rs. '000)	Cost per unit
1.	2012 – 2013	65	0.256
2.	2013 – 2014	78	0.334
3.	2014 - 2015	78	0.410
4.	2016 – 2017	78	0.433
5.	2017 - 2018	96	0.554

Source: Stock Registers of Marthandam Bee-keepers Co-operative Society

The above table shows that the production cost of honey has remained constant at Rs.78 from the year 2013-2017, it has increased to Rs.96 during the year 2017-2018 and the cost per unit has increased at a slower speed from the year 2012-2018.

TABLE - 5 ANALYSIS OF VARIATION IN TOTAL PRODUCTION

S. No.	Year	Honey		Bee-Keeping Equipment	
		Value (Rs. '000)	Increase/ Decrease in Value	Value (Rs. '000)	Increase/ Decrease in Value
1.	2012 – 2013	11,899	-	262	-
2.	2013 – 2014	13,789	1,890	245	-(17)
3.	2014 - 2015	9,605	-(4,184)	90	-(155)
4.	2016 – 2017	12,603	2,998	112	22
5.	2017 - 2018	13,520	917	98	-(14)

SUGGESTIONS

1. Since there is no substantial growth in the production of honey and bee-keeping equipment during the study period, efforts may be taken by the society to increase the production by employing the latest technologies in honey production.
2. The sale of honey has decreased over the study period. Therefore, efforts may be taken to increase the sale of honey by employing effective sales promotional tools.
3. Since the production cost of honey increased during the study period, efforts should be taken by the society to cut down unnecessary cost and by reducing the wastage.

CONCLUSION

The present study has been undertaken to highlight the performance of Marthandam Bee-Keepers Co-operative Society Ltd regarding the production of honey and bee-keeping equipments.

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