# A Study on Honey Production and Marketing by the Marthandam Beekeepers' Co-Operative Society in Kanniyakumari District

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#### Abstract

In this paper, we explain honey production and marketing of the Marthandam Beekeepers Co-Operative Society in Kanniyakumari District. Honey is a sweet, liquid produced by honey bees from nectars and other sweet substances of plants by the addition of their digestive enzymes and by ripening the resulting mixture. The variety of honey produced by honey bees is the best known, due to its worldwide commercial production and human consumption. Data for the present study has been collected from primary sources of information. Hence, the Martandam Bee-keepers Co-operative Society, which faces production and marketing problems, should be rejuvenated and refurbished.

Keywords: Bee hive, Socio-economic condition, Income, Expenditure, Agriculture, Beekeeping

### Introduction

India is primarily an agricultural country, and nearly three-fourth of its population mainly depends on agriculture. In hills and forest areas, tribal people who are living on forest products concentrate on honey production through beekeeping activities. Honey is the sweetest, most nutritious natural food and has always been eagerly sought. Honey is an agro horticultural product. The word Madhu (honey) is as sweet, to the ear as its taste into the tongue. That is why the season of honey-flow was given the name of Madhumasa by the ancestors. Honey is a kind of stimulant. It enters the blood immediately, and restores lost energy immediately. It has been accepted as an invaluable remedy both in Ayurvedic and Unani systems of medicine from very ancient times. It has long been recognized as a true cosmetic. Indian honey compares well in all respects of its quality with the best of kinds of honey all over the world. Its quality standards are specified by various quality control organizations. There are three types of bees in a bee hive or a wild nest. They are a single female bee (queen bee), a seasonally variable number of male drone bees, and 20,000 to 40,000 female worker bees. Four species of bees are found in India, viz. Apis cerana, Apis dorsata, Apis flora & Trigona. Among these, the highest honey producing species is Apis dorsata. It is densely populated in Maharashtra, U.P., Karnataka, Kerala, T.N., A.P., M.P., Gujarat, Rajasthan, W.B. & Punjab.

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This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License Major honey production and its availability in the market normally come from Apis dorsata bee colonies. Due to gradual deforestation and indiscriminate use of insecticides in modem agriculture, the bee colonies in nature, particularly Apis dorsata and Apis cerana indica have slumped.

### **Statement of the Problem**

Honey is used by humanity as a portion of delicious and nutritious food, as well as medicine. Honey is a natural sweets syrup collected by honey bees, and man gets essential nutrition like carbohydrates, minerals, amino acids, proteins, and vitamins in a mutual form. Honey industries are one of the popular village industries of Kanniyakumari District. This industry faced problems like lack of finance, lack of storage conveniences, price fluctuations, and shortage in the supply of laborious during peak season. Under these situations, the Marthandam Beekeepers Co-Operative Society came into existence in the year 1937. The society has been making several interventions to encourage the development of the honey industry in Kanniyakumari District. In this context, an attempt has been made in this study to study the assistance made by society to rejuvenate honey production in Kanniyakumari District.

# **Objectives of the Study**

- The main objective of this study is to analyze the production of honey in general and marketing of honey in particular beekeeping Co-Operative Society in Marthandam.
- To understand the socio-economic conditions of the selected sample, members of The Marthandam Beekeepers Co-Operative Society.
- To study the income and expenditure pattern of the same members.
- To identify the profile of The Marthandam Beekeepers Co-Operative Society.
- To examine the marketing of honey by The Marthandam Beekeepers Co-Operative Society.

# Limitations of the Study

The major limitations of thee study are as follows

The study is restricted to evaluate the marketing

problem of honey of beekeepers co-operative in Marthandam.

- The respondents were not able to give a correct picture of the expenditure pattern of their households.
- The study is restricted by honey agencies like YMCA Marthandam and the Marthandam beekeepers co-operative society.

# **Review of Literature**

Viji Kumar .V and Gladstone Joy. N (2017), in their journal "Honey Production and Marketing - Overview, "analyze the problems involved in the production as well as the marketing of honey at the global level. The raw materials are in the form of nectar and pollen from flowers, which is freely available in nature. Beekeeping generates employment to unemployed and underemployed persons with full employment and extra income. There is a need to boost apiculture to boost crop productivity. The untapped potential of beekeeping is yet to be exploited for increasing opportunities for gainful employment and income in the rural areas.

Ramamoorthy, P.A(2014), in his article "Farmer Friendly Honey Bees," suggested that the farmer can enhance his income by learning and adopting beekeeping techniques along with crop cultivation. Thus, the farmer can become self-reliant. This will enable him to get nature's precious sweet honey from his farm.

Sharma, B.S., and Ramesh Chand(2010), in their article, "Diversification and employment through apiculture", explained that the aim of the development of beekeeping movement is reasonable when we look at the present level of per capita consumption of honey in our country. It appears that increased production will easily be engrossed by conjugal demand.

Dr. E. Raja Justus (1998), in his articles, "Beekeeping industry in Tamil Nadu," points out that Beekeeping is a gainful industry when compared with other village industries. The Beekeeping industry in Tamil Nadu is performance and growing trend as far as employment is anxious. The value of production of the Bee-keeping industry in Tamil Nadu is constantly increasing. This is a good sign of development and growth of the industry".

# The Marthandam Beekeepers' Co-Operative Society

Marthandam Beekeepers Co-Operative society is a society of Honey beekeepers. The Marthandam Beekeepers Co-Operative Society is recognized by Khadi and Village Industries Commission and certified by Khadi & Village Industries Board. The Society was started in the year 1937 paid-up share Capital of Rs.2.31-Lakhs. The Honey Purchased by the society is processed, Agmarked (A-Grade), and supplied all over India. The production of honey is seasonal according to climatic conditions, February to April, every year. The society is giving employment opportunities to more than 10,000-individuals, including men and women there are benefited. Bonus and Dividend are distributed to the members from net profit earned by the society.

Tamilnadu Civil Supplies Corporation, Tamilnadu Medicinal Plant, Sarvodaya Sanghams, and Private concerns are the regular customers of Marthandam Bee-keepers Co-Operative society. The motivation of this society is to promote honey beekeepers.

The honey produced by the members is collected by the society then purified, bottled with Agmark certificate, and marketed to various parts of India. By nature in our district, honey production is done mainly from February to April. Marthandam Beekeepers Co-Operative society occupies first place in Tamil Nadu for honey production and sales. Thus the society plays a significant role in promoting honey production and marketing in Kanniyakumari District. (Source: Purchase and Sales Book, Co-Operative Society, 2018)

# Membership of the Society

Marthandam Beekeepers' Co-Operative Society was started with 25 honey beekeepers. During the membership fee was Rs. 50 per member. It was increased to Rs.100 during the year 2010-11. In the beginning, the society had 25 members. In the year 2015-16, the membership was the society was 1359.

Table 1: Membership of the MarthandamBeekeepers Co-Operative Society Between1990-'91 and 2015-'16

| 1990-'91 and 2015-'16 |         |  |  |
|-----------------------|---------|--|--|
| Year                  | Members |  |  |
| 1990-91               | 1213    |  |  |
| 1991-92               | 1229    |  |  |
| 1992-93               | 1844    |  |  |
| 1993-94               | 1842    |  |  |
| 1994-95               | 1842    |  |  |
| 1995-96               | 1842    |  |  |
| 1996-97               | 1255    |  |  |
| 1997-98               | 1263    |  |  |
| 1998-99               | 1351    |  |  |
| 1999-2000             | 1369    |  |  |
| 2000-01               | 1380    |  |  |
| 2001-02               | 1410    |  |  |
| 2002-03               | 1469    |  |  |
| 2003-04               | 1484    |  |  |
| 2004-05               | 1298    |  |  |
| 2005-06               | 1215    |  |  |
| 2006-07               | 1292    |  |  |
| 2007-08               | 1322    |  |  |
| 2008-09               | 1356    |  |  |
| 2009-10               | 1363    |  |  |
| 2010-11               | 1395    |  |  |
| 2011-12               | 1424    |  |  |
| 2012-13               | 1370    |  |  |
| 2013-14               | 1368    |  |  |
| 2014-15               | 1360    |  |  |
| 2015-16               | 1359    |  |  |
|                       |         |  |  |

**Source:** Purchase and Sales book of Co-Operative Society from 1990-'91 to 2015-'16

Table No 1 shows the number of member beekeepers in Marthandam Bee-keepers Co-Operative Society, during the period from 1990-91 to 2015-16. In the year 1990-91, the total number of member beekeepers was 1213. In the next year (1992-93) the number of member beekeepers increased to 1844. Between 1992-93 and 1995-96, the membership of the society almost remained the same. The membership slightly decreased to 1255 in the year 1996-97. After that, the membership ranged between 1215 and 1484. During 2015-16 the society had 1359 beekeepers as members.

#### Method of Data Collection

The present study is both descriptive and analytical. Data for the present study has been collected from primary sources of information.

#### **Primary Data**

Primary data are collected systematically through personal interview method. The primary data are collected from member beekeepers of Marthandam Co-Operative society using an interview schedule. The primary data are collected to obtain the required data on socio-economic characteristics, production of honey, processing method, marketing methods, and problems of beekeepers of the study area.

#### Selection of Sample Size

The researcher has adopted a simple random sampling method for selecting respondents (lottery method) during the 2017-18 Marthandam Beekeepers co-Operative Society had 1359 members. Out of these, only 600 members were supply honey regularly to the society. So for my study, 10 percent of these beekeepers were selected as sample members that are 60 sample beekeepers were selected for intensive study.

### **Statistical Tools Used**

Statistical methods are a mechanical process specially designed to facilitate the quantitative data. In this study, various statistical tools have been applied. Statistical techniques like percentage, classification, tables are used.

### Analysis and Interpretation of Data

This section deals with the socio-economic conditions of these sample member beekeepers. The Beekeepers' Co-Operative Society in Marthandam assist in many ways in the overall development of the beekeeping industry,

### **Age-wise Distribution**

People in the productive age group can contribute a lot to economic development. The age-wise classification of the sample respondents is given in table 2.

#### Table 2: Age-wise Distribution of the Respondents

| S. No | Age   | No. of Respondents | %   |
|-------|-------|--------------------|-----|
| 1     | 20-30 | 9                  | 15  |
| 2     | 30-40 | 15                 | 25  |
| 3     | 40-50 | 24                 | 40  |
| 4     | 50-60 | 12                 | 20  |
|       | Total | 60                 | 100 |

Source: Primary data

Table 2 shows that 15 percent of the respondents belonged to the age group of 20-30 years; 25 percent of them belonged to the age group of 30-40 years. Forty percent of them belonged to the age group of 40-50 years, and the remaining 20 percent of them belonged to the age group of 50-60. In this study majority of them (40 percent) of them to the age group of 40-50 years.

### **Gender Composition**

Male and females are considered to be an acceptable sex group in society. Gender is an important factor for this analysis. The following table shows the number of male and female sample respondents.

| S. No | Gender | No. of Respondents | %   |
|-------|--------|--------------------|-----|
| 1     | Male   | 51                 | 85  |
| 2     | Female | 9                  | 15  |
|       | Total  | 60                 | 100 |

Source: Primary data

Table 3 shows that 85 percent of respondents are male, and 15 percent of the respondents are females. This study observes that most of them are male

### **Educational Qualification**

Education is a process of imparting knowledge and developing the power of reasoning and judgment of an individual. It is one of the pillars of the Human Development Index. Education not only provides Knowledge and skills to children, youth and adults to be active citizens and to fulfill themselves as individuals, but literacy, in particular, contributes directly to development. The educational attainment of the respondents is analyzed with the help of figures given in Table 4.

| Trespondentes    |   |   |  |
|------------------|---|---|--|
| Education        | No. of<br>Respondents                         | %   |  |
| Illiteracy       | 6   | 10  |  |
| SSLC             | 30  | 50  |  |
| HSC              | 15  | 25  |  |
| Degree & Diploma | 9   | 15  |  |
| Total            | 60  | 100   |  |
|                  | Illiteracy<br>SSLC<br>HSC<br>Degree & Diploma | EducationRespondentsIlliteracy6SSLC30HSC15Degree & Diploma9 |  |

 Table 4: Educational Qualification of the Respondents

Source: Primary data

It is inferred from the table 4 that 6 (10 percent) of the respondents are illiterates, 30 (50 percent) of the respondents have studied up to SSLC, 15 (25 percent) of respondents finished Higher Secondary, and 9 (15 percent) of the respondents have studied degree & Diploma courses. It can be shown in the following diagram.

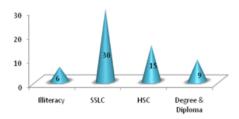


Figure 1: Educational Qualification Second section income and Expenditure

#### Annual Income

The beekeepers earn income from beekeeping and another source. Table 5 shows the annual income of beekeepers from honey and other sources.

| Table 5: | Annual | Income | of the | Respondents |
|----------|--------|--------|--------|-------------|
|----------|--------|--------|--------|-------------|

| S. No | Annual Income<br>(in Rs) | No. of<br>Respondents | %   |
|-------|--------------------------|-----------------------|-----|
| 1     | 1,00,000 and below       | 9                     | 15  |
| 2     | 1,00,000-2,00,000        | 18                    | 30  |
| 3     | 2,00,000-3,00,000        | 12                    | 20  |
| 4     | 3,00,000 and above       | 21                    | 35  |
|       | Total                    | 60                    | 100 |

Source: Primary data

It is clear from the above table 5 that of the 60 respondents, 21 (35 percent) of the respondents be annual income group of above 3,00,000, and above, 18 (30 percent) of the respondents are between

the annual income group of Rs 1,00,000-2,00,000, 12(20 percent) of the respondents are between the annual income group of Rs 2,00,000-3,00,000, and 9(15 percent) of the respondents are below annual income group of Rs 1,00,000. It can be shown in the following diagram.

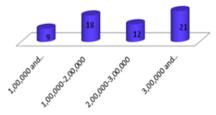


Figure 2: Annual Income of the Respondents

#### **Annual Expenditure**

Everything in Beekeepers' life cannot be fulfilled by the income from beekeeping a line. He has to meet many items of expenditure. Expenditure is sure to vary from person to person. Naturally, some of them spend the least amount while some have to spend more. The following table no.6 shows the expenditure of the 60 respondents for the year 2016.

Table 6: Annual Expenditure of the Respondents

| S. No | Expenditure<br>(in Rs) | No. of<br>Respondents | %   |
|-------|------------------------|-----------------------|-----|
| 1     | Below 50,000           | 9                     | 15  |
| 2     | 50,000-1,00,000        | 12                    | 20  |
| 3     | 1,00,000-1,50,000      | 18                    | 30  |
| 4     | Above 1,50,000         | 21                    | 35  |
|       | Total                  | 60                    | 100 |

Source: Primary data

The table no.6 clearly shows that the annual expenditure of beekeepers. Out of 60 respondents, 21(35 percent) of the respondents spending annual expenditure of Rs.1,50,000 and above. 18(30 per cent) of them spending annual expenditure of Rs.1,00,000-1,50,000. 12(20 percent) of them spending annual expenditure of Rs.50,000-1,00,000 and 9(15 percent) of them spending annual expenditure of Rs.50,000 and below.

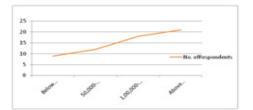


Figure 3: Annual Expenditure of the Respondents

### **Production of Honey**

Honey is generally produced by individuals is purchased and the process by YMCA, KVIB, and Co-Operative Society. The production of honey for Marthandam beekeepers society is shown with Table 7.

| S. No | Honey    | No. of Respondents | %   |
|-------|----------|--------------------|-----|
| 1     | February | 18                 | 30  |
| 2     | March    | 21                 | 35  |
| 3     | August   | 12                 | 20  |
| 4     | November | 9                  | 15  |
|       | Total    | 60                 | 100 |

**Table 7: Production of Honey** 

Source: Primary data

From the above table 7 shows that out of 60 respondents, 18 respondents have honey as production in February, 21 respondents have honey as production in March, 12 respondents contain honey since production in August, nine respondents have honey as production in November.

#### Marketing of Honey Area of Marketing

The market is an important factor in the buying and selling process. The respondents choose different areas of marketing. The areas of marketing are analyzed with the help of table no8.

| Table 6. Alta of Walketing |                      |                       |     |  |
|----------------------------|----------------------|-----------------------|-----|--|
| S. No                      | Area of<br>Marketing | No. of<br>Respondents | %   |  |
| 1                          | Local area           | 42                    | 70  |  |
| 2                          | Within District      | 18                    | 30  |  |
| 3                          | Within state         | -                     | -   |  |
| 4                          | Others               | -                     | -   |  |
|                            | Total                | 60                    | 100 |  |

Table 8: Area of Marketing

Source: Primary data

In table 8 shows that 42 (70 percent) of the respondents sell their honey in the local area market, and 18 (30 percent) of the respondents sell the honey within the district.

# Level of Honey Marketing Problems in the Selected Respondents

The level of honey marketing problems in the selected respondents divided into three categories low, medium, and high. The sample respondents and the Level of problems of honey marketing following show table no 9.

 
 Table 9: Level of Honey Marketing Problems in the Selected Respondents

| Level  | No. of Respondents    | %                   |
|--------|-----------------------|---------------------|
| Low    | 12                    | 20                  |
| Medium | 27                    | 45                  |
| High   | 21                    | 35                  |
| Total  | 60                    | 100                 |
|        | Low<br>Medium<br>High | Low12Medium27High21 |

Source: Primary data

The table no. 9 clearly shows that all of the 60 respondents, 12(20 percent) of the respondents faced the problems of low level, 27(45 percent) of the respondents faced the problems of medium level and 21(35 percent) of the respondents faced the problems of high level. It can be shown in the following diagram.

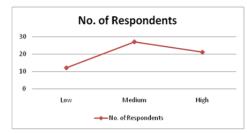


Figure 4: Level of Honey Marketing Problems in the Selected Respondents

### **Grade of Honey**

The grade of honey is an important factor for the analysis. The following table shows the grade-wise classification of honey of the respondents.

| S. No | Grade     | No. of Respondents | %   |
|-------|-----------|--------------------|-----|
| 1     | Agmark    | 30                 | 50  |
| 2     | 'A' grade | 15                 | 25  |
| 3     | 'B' grade | 9                  | 15  |
| 4     | Low grade | 6                  | 10  |
|       | Total     | 60                 | 100 |

Table 10 Grade Wise Classification

#### Source: Primary data

The table no ten clearly shows that 30(50 percent) of the respondents have a honey of Agmark grade 15(25 percent) of the respondents have a honey of 'A' grade 9 (15 percent) of the respondents have a honey of 'B' grade.

#### Findings

- It has been found that the majority of 40 percent of the respondents belonged to the age group of 40-50 years
- The study points out that the majority of 85 percent of the respondents are male.
- The analysis shows that the majority (50 percent) of the respondents have studied up to SSLC only.
- The study points out that (35 percent) of the respondent's annual income was above Rs. 3,00,000.
- The analysis shows that the majority (35 percent) of the respondent's annual expenditure was above Rs.1,50,000.
- The analysis shows that 18 respondents have honey production in February,21 respondents have honey production in March, 12 respondents have honey production in August, and nine respondents have honey production in November.
- The analysis shows that majority (70 percent) of the respondents prefer marketing in local area.
- The analysis shows that the majority (45 percent) of the respondents faced the problems of medium level.
- It is found that the majority (50 percent) of the respondents are satisfied with the "Agmark" grade of honey.

#### Conclusion

The Marthandam Bee-keepers Co-operative Society, which faces production and marketing

problems, should be invigorated and refurbish. To liberate of net deal wounded, the Society should ponder on the scrupulous item of product, which yields the most increase. Also, behavior and means must be found to export honey at times of excess production. The trademark of the study is that the Society has been earning gross profit but sustains net trading losses in the recent past by dip of the incurrence of curiosity at an exorbitant rate, followed by heavy payment of agent's payment and a large amount of establishment expenses. The Society, to turn a new leaf, must be immediately supported with the following measure. Facilities must be available to the Society to borrow- loans at a reasonable rate of interest names, at an off affordable cost, especially at times of surplus production of honey.

#### References

- Alice, J. and Kumaravel, K.S. "Beekeeping-Abonanza for Rural Economy." *Kissan World*, vol. 36, no. 5, 2012.
- Dinath Dube, "Money from Honey." Yojana, vol. 16, 1980.
- Ethan Malar, I. "A Study above Khadi and Village Industries with Special Reference to the Financial Performance of Marthandam Beekeeping Co-operative Society." 2000-2001.
- Jameskutty Kuriakose. "Diffusion of Bee-keeping Technology in Kerala." An Economic Analysis, 2000-2001.
- Mishra, R.C. "High Returns with Social Benefits." An Economic Analysis, 1999.
- Muniandi, K. "Honey the Life Giver." *Kissan World*, vol. 27, no. 1, 2000.
- Neelima Kumar, R.. "Bee keeping for Employment." Kissan World, vol. 22, 1995.
- Neelima R Kumar. "Bee-keeping for Self-Employment." *Kison World*, no. 3, 1995, p. 53.
- Nisha and Kaushik, K.K. "Bee-keeping A Case Study." Yojana, 1992.
- Palanichamy, M. "Bee Keeping as a Business." Kissan World, vol. 5, no. 1978, pp. 32-33.
- Planichami. "Bee Keeping as a Business." *Kissan World*, vol. 5, no. 3, 1978.

Prasad, Mahabir. "Focus on Generation of

Employment in Rural Areas." *Gramodeya Kshitiji*, vol. 1, no. 7, 2005, pp. 21-25.

- Raghavan, T.L. "Honey Read and its Bounty." *Kisan World*, vol. 20, no. 8, 1993.
- Raja Justus, E. "Bee Keeping Industry in Tamil Nadu." *Kissan World*, vol. 21, no.1, 1998.
- Sarkar.A.N. "Agricultural in North Eastern Region." *Yojana*, vol. 37, no. 12, 1993.
- Selvaraj and S. Gokila. "Success Story of Salangapalayam Milk Producers' Cooperative Soceity." *Tamil Nadu Journal of Cooperation*, vol. 3, no. 3, 2003.
- Srimathy, S. A Study on the Working of Marthandam Beekeepers Co-Operative Society, Madurai Kamaraj University, 1988.
- Sunitha, K. Marketing of Honey in Kanniyakumari District, Manonmaniam Sundaranar University, Thirunelveli, 2001.
- Viji Kumar, V. and Gladstone Joy, N. "Honey Production and Marketing - Overview." International Journal of Engineering and Management Research, vol. 7, no. 6, 2017, pp. 30-42.

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