Vol. 1, No. 1; Jan – Mar (2021)

Quing: International Journal of Commerce and Management

Available at https://quingpublications.com/journals/ijcm

A Study on Coconut Manufacture in Salem District and Dharmapuri Districts

Dr. V. S. Rajakrishnan★

Head & Associate Professor, Department of Management Studies, E.G.S. Pillay Arts & Science College (Autonomous), Nagapattinam, TN, IND.

Dr. S. Karpagam

Head & Assistant Professor, Department of Business Administration, E.G.S. Pillay Arts & Science College (Autonomous), Nagapattinam, TN, IND.

ARTICLE INFO

Received: 05-12-2020
Received in revised form: 08-03-2021
Accepted: 13-03-2021
Available online: 30-03-2021

Keywords:

Agronomic;
Agriculture;
Coconut;
Crop;
Coconut Cultivation.

ABSTRACT

Coconut is totally full grown more than 80 countries of the world with a hard and fast improvement of 49 billion nuts. India includes a staggering circumstance in respect of improvement of coconut in the earth. Coconut is a collect of pretty much nothing and minor farmers since 98% of around 5,000,000 coconut properties in the country are under two hectares. Two critical classes of coconuts are customarily detailed dependent on stature: tall and more modest individual. The ones most regularly planted for business aims are the tall arrangements, which are deferred to create and first sprout appear to be six to ten years ensuing to planting. During blustery season bury culture be never truly out grass and make the earth more pores. Hence, better and legitimate agronomic practices at neighbourhood level will achieve improving the yield and improvement. Moreover, the high yielding groupings like Veppankulam and Mandya tall combinations be upheld among the farmers. Water Scarcity has expected a critical part for low effectiveness.

DOI: https://doi.org/10.54368/qijcm.1.1.0011

1.0 INTRODUCTION

Coconut is filled more than 80 countries of the world with a full-scale advancement of 49 billion nuts. India has a mind-boggling circumstance in respect of improvement of coconut in the world. Coconut is a gather of close to nothing and immaterial farmers since 98% of around 5,000,000 coconut properties in the country are under two hectares. In the west shoreline of India, the palm is a significant fragment in the farmhouse course of action of developing where it is created as rainfed.

Two critical classes of coconuts are generally documented dependent on stature: tall and more modest individual. The ones most routinely planted for business goals are the tall arrangements, which are deferred to create and first bloom appear to be six to ten years resulting to

★ *Corresponding author's e-mail:* drvsrajakrishnan@gmail.com (Dr. V. S. Rajakrishnan)

planting. They produce medium-to-tremendous estimated nuts and have a future of sixty to seventy years. The small combinations may have begun as a distinction in tall sorts. The minor grouping may create to a height of 25 to thirty feet and begin to bloom following three years. Their future is simply around thirty existences. Small arrangements are regarded since they bear early and are against to destructive. The palm is implied as Kalpavriksha – the "tree of heaven" as each and every piece of the palm is useful to humanity in one way or other. It gives food, drink, fuel and timber. A large number of families in India depend upon coconut for their living either directly or not clearly. India positions a third in area and improvement of coconut in the world (Trivedi, 2007).

1.1 Coconut Construction in Global Level

Coconut is a standard agrarian area and is filled more than 90 countries of the earth. Nonetheless, it is hard to set up a coconut provincial estate yet at whatever point it is done, it winds up being valuable as the coconuts are assembled all as the year advanced. The world improvement of coconut sums up to around 55 million tons yearly. Indonesia and Philippines are the critical countries that make the best coconut natural items in the earth.

1.2 Coconut Construction in India

Two unmistakable collections of coconut for instance tall and minor individual are a created in the area of Tamil Nadu because of cross-preparation in tall, assortments do occur inside a comparable arrangement. The varieties, which are more proper for Tamil Nadu states, are East Cost Tall (ECT), West Coast Tall (WCT), Veppankulam - 3 (VPM-3), Andaman standard, a tall arrangement was conveyed as VPM 3 during 1994 VHC-2 (ECT x MYD) a crossbreed collection comes to bearing in 5 years (43 months - time taken to blooming).

Coconut is created more than 18 states and Union Territories. The territories of Kerala, Tamil Nadu, Karnadaka and Andra Pradesh address more than 90 for every one of domain and improvement of coconut in the country. In spite of the way that, the improvement of coconut is restricted essentially on waterfront states, coconut and its things are eaten up by every family in India. It is consumed for palatable, social and exacting traditions and subsequently arranges client interest reliably. Thusly the corp. has obtained public importance as food, oil seed, and drink crop and is a huge wellspring of rough material for innumerable agro-base undertakings. Despite the truth their coconut is seen as a drawn out crop which gives upheld yield pay, subjects to vermin and contaminations. Rajensenan (2012) declared that eriophide is a critical bothering, which impact the yield levels of coconut. He suggested that a more noteworthy measure of normal strategies to fabricated for battling the vermin. Rajensenan endorsed that to prevent the irritations, coconut trees be presented to tap drink.

The coconut palm is amazing in having suffering nature of synchronous yielding. The money related future of the harvests continues to go more than 50-60 years in the wake of planting and in this manner warrants the necessity for constant thought and the board for offset yield. Considering its intriguing nature of continuing with advancement and yielding stages, the nuts are assembled regularly on a fixed stretch. However, the yield varies starting with one gather then onto the next and year to year.

1.3 Review of Literature

Sundaram (2011) communicated that the sensitive coconut water from Pollachi might be prestigious across the region, anyway the immense number of farmers here only sometimes select to

join the assurance plot offered by the state government as the cases cycle is irksome and the guidelines totally irrational. The state government offers financed assurance for coconut farmers through the Agriculture Insurance Company of India Limited. Farmers are expected to pay only 25% of the premium, while the state pays 25% and the Coconut Development Board pays the rest. In any case, farmers are not captivated to join paying little mind to the unsafe sponsorship.

Rajensenan (2012) generally, the respondents overall regions pondered that assurance is significant for coconut palms. In Kerala the state government offers assistance to the cultivators in the event of loss of palm, for which farmer doesn't have to pay any premium. Thusly, the people who consider the assurance as fundamental are comparably less in this area. Despite having feasible different choices, around 75% of the cultivators in Kerala consider the arrangement imperative.

Theerkhapathy and Chandrakumarmangalam (2014), Consequent to the globalization of Indian economy, the local coconut market economy has similarly been pushed towards a condition of competition, where coconut oil expected to equal other low worth vegetable oil and fats in the overall market. Indian food planning can be a central purpose in India's money related unforeseen development and a stimulus of the exhaustive turn of events. It can extend farmers' compensations by 20-40 percent, make between 50-100 million positions and fundamentally improve sustenance levels. The coconut palm applies a huge impact on the rural economy of the various states where it is grown broadly and it offers food to more than 10 million people. The getting ready and related activities zeroed in on the yield produce business openings for in excess of 2,000,000 people in India. The responsibility of the coconut oil to the public satisfactory oil pool is 6%. What's more the reap contributes Rs.7000 crores consistently to the Gross Domestic Product (GDP).

Yamuna and Ramya (2016) India is a cultivating country and 33% of people depends upon the rustic zone clearly or by suggestion. Agriculture stays as the standard wanderer of the Indian economy since a long time ago. The coconut crop fundamentally influences social and social effect on the coconut cultivators. Allure and cost set up for coconut and it by things chooses the money related condition of farmers. Tamil Nadu holds chief offer in coconut area and creation after the territory of Kerala. Coconut improvement is seen as one of the huge livelihoods which support 60 % farmers in the state.

1.4 Objectives of the Study

In like manner, having described the degree of the examination, the objective of the assessment has been restricted to the going with perspectives:

- Concurrent appraisal of the measure the yield and advancement of coconut for 2017-18 in Dharmapuri and Salem District of Tamil Nadu state by endeavoured field outlines and yield evaluated subject to set up phenotypic characters of the gets/nuts.
- To develop a legitimate model for predicting the yield of coconut in the country at any rate 6-10 months early.
- To make a figure of yield and advancement for coconut for the next year (2018-2019).

2.0 METHODOLOGY

The Methodological Design shapes a critical part in any sensible examination. For the evaluation of improvement of coconut in the country, one of the coconuts conveying regions of Tamil Nadu, have been decided for the assessment. Tamil Nadu State addresses over 90% of locale and advancement of coconut in the country.

The extensive system arranged is referred to under

- Design of Proforma
- Survey Team Formation
- Primary Data Collection
- Processing and Analysis of Data

2.1 Design of Proforma

Well-Structured schedules have been prepared for the survey. The Schedule thus developed for the survey estimation of construction of coconut in the district of Dharmapuri and Salem District contained the following information.

- General information
- Personal details of coconut Farmer
- Information about Coconut Holdings
- Yield data for 10 palms observed by the field investigator
- Nuts remaining in the tree

The schedule consisted of information needed on the following that have been collected from Coconut Farmer, Panchayat Chairperson and so on.

2.2 Survey Team Formation

The Survey Team involved a fundamental Investigator, Co-coordinator and 5 field level analysts who finished the outline on 85 model properties. The survey bunch was given planning on data variety. On an ordinary, it took 11 belongings day in to complete the audit in a gathering.

2.3 Data Collection

Fundamental data arrangement included field level survey. An organized data on coconut advancement plan for various end uses was accumulated from each holding with the help of schedules. The schedule was planned to accumulate data on huge pieces of coconut advancement, bearing palms, Non-Bearing palms, status of the board chips away at, managing model, and number of nuts obtained during the last gather, palm collection and age get-together of palm.

The family farm level data arrangement highlighted perceiving and combination of extraordinarily huge points of view related to coconut advancement. The outline for coconut surveying for Dharmapuri and Salem District has been given out with the Department of Economics, Periyar University and Salem. Note that these areas go under Semi-Arid Tropics (SAT), where coconut is moreover produced for a colossal extension. This is a being finished in shallow valleys.

2.4 Data Processing and Analysis

The data assembled at the farm holding level was readied. All the data have been confined and researched by the necessities proposing of Coconut Development Board (CDB). From the data variety drove, Number of nuts got during the last accumulate and nuts extra in the tree have been gathered. The data have been taken care of with the item Excel.

Table 1 – Areas under Coconut Cultivation – Block Wise

Sl. No.	Block / District	Area of Coconut Cultivation (in Ha)
1	Kaveripattinam / Salem District	77.69
2	Palcode / Dharmapuri	39.35

Table 1 shows that the total areas of coconut in the sample villages are 77.69 Ha in Salem District and 39.35 Ha in Dharmapuri District. Number of holdings and palms surveyed are analysed in the following Table 2 and Table 3.

2.5 Sample Frame

In the ensuing stage, comparable region and squares of Dharmapuri and Salem District was contemplated. From Dharmapuri District the amount of property was extended and reduced in the resulting stage. Table 2 and Table 3 shows the amount of test assets and palms considered. From the primary stage Total Number of properties in Dharmapuri was 27 and Salem District it was 58.

Table 2 – Selections of Sample Holdings – Village/Block wise

District	Block	Villages / Panchayat	No. of Holdings	No. of Palms Surveyed
Dharmapuri	Palacode	A Mallapuram	6	60
		Belamaranachalli	6	60
		Bevahalli	5	50
		Chikkamarandahalli	6	60
		Golasanahalli	6	60
		Total	**29**	**290**
Salem	Kaveripattinam	Arasampatti	11	110
		Barur	11	110
		Pannandur	11	110
		Papparapatti	11	110
		Vadamangalam	11	110
		Total	**55**	**550**

Table 3 – Size of Holding

District	Block	Village / Panchayat	No. of Holdings	Holding Area in Hectors	Average Size of Holding (in Hectors)	Acres	Average Size of Holding (in Acres)
Salem	Kaveripattinam	Arasampatti	11	22.86	2.07	55.5	5.04
		Barur	11	40.46	3.67	100	9.09
		Paparappati	11	19.76	1.79	48.85	4.44
		Pannandur	11	13.15	1.19	32.5	2.95
		Vadamangalam	11	11.57	1.05	30.6	2.78
		Total	55	107.82	9.77	267.45	24.3
Dharmapuri	Palcode	A.Mallapuram	6	6.63	1.10	5.04	2.73
		Belamaranahalli	6	3.43	0.57	9.09	1.41
		Bevuhalli	5	8.90	1.78	4.44	4.4
		Chikkamarandahalli	6	7.28	1.21	2.95	3
		Golasanahalli	6	13.07	2.17	2.78	5.38
		Total	29	39.33	6.83	97.2	16.92

2.6 Selection of Palms

In each of the Coconut farm selected, the central point was located and squared in such way that 10 palms were decided and marked.

2.7 Method of Data Collection

From the picked palms, all packs passing on making nuts after treatment for instance a fourth of a year or more, were checked group adroit with the help of Traditional Tree Climbers. Information regarding the last accumulate was similarly assembled from the owners of the plot. Bits of knowledge about the hard and fast locale, number of bearing and non-bearing palms, status of the organization of coconut, managing plan, etc, were moreover accumulated.

2.8 Period of Survey

The field study was done in the significant length of August 2019. Here both the time plan and cross-sectional data have been used. Helper data for region and improvement at full scale level (Block and District) have been spread out. Followed by this field level information have been reviewed with field knowledge. The region of coconut advancement in Salem District and Dharmapuri area is showed up in the going with Table 4.

2.9 Farm Size and Holdings

Given the full-scale circumstance that coconut advancement is overpowered by nearly nothing and insignificant farmers, a little exercise has been never truly out the ordinary holding size in the assessment zone.

Table 4 – Farm Size

District	Block	Village / Panchayat	Marginal (Less than 1 Acres)	Small (1 to 4 Acres)	Medium (Above 4 Acres)	Total Holdings
Salem	Kaveripattinam	Arasampatti	-	6	5	11
		Barur	-	4	7	11
		Paparappati	-	8	3	11
		Pannandur	1	7	2	10
		Vadamangalam	-	11	1	12
		Total	**1**	**36**	**18**	**55**
Dharmapuri	Palcode	A.Mallapuram	-	5	1	6
		Belamaranahalli	1	5	-	6
		Bevuhalli	-	3	2	5
		Chikkamarandahalli	-	5	1	6
		Golasanahalli	-	4	2	6
		Total	**1**	**22**	**6**	**29**

2.10 Cropping Pattern in Sample Villages

From the Table 5, clearly mono reap is gotten in Salem District region and mixed altering is embraced in Dharmapuri territory. Regardless of the way that the agro-climatic conditions in both the areas appear to be same, as a result of other money related and institutional segments, the altering configuration differs.

Table 5 – Cropping Pattern

District	Block	Village / Panchayat	Mixed	Mono	Total
Salem District	Kaveripattinam	Arasampatti	1	10	11
		Barur	0	10	10
		Paparappati	1	10	11
		Pannandur	2	10	12
		Vadamangalam	1	10	11
		Total	**5**	**50**	**55**
Dharmapuri	Palcode	A.Mallapuram	3	3	6
		Belamaranahalli	5	0	5
		Bevuhalli	0	5	5
		Chikkamarandahalli	5	0	5
		Golasanahalli	2	4	6
		Total	**15**	**12**	**27**

2.11 Bearing and Non-Bearing Palms in Sample Villages

Table 6 – Bearing and Non-bearing Palms

District	Block	Villages / Panchayat	Bearing	Non-Bearing	Total
Dharmapuri	Palacode	A.Mallapuram	60	-	60
		Belamaranahalli	59	1	60
		Bevahalli	60	-	60
		Chikkamarandahalli	60	-	60
		Golasanahalli	60	-	60
		Total	**289**	**1**	**290**
Salem District	Kaveripattinam	Arasampatti	110	-	110
		Barur	110	-	110
		Pannandur	110	-	110
		Papparapatti	109	1	110
		Vadamangalam	110	-	110
		Total	**549**	**1**	**550**

The experiences concerning the age of the palms and their bearing status were evoked from the picked respondent farmers. Fittingly it was found that out of 29 belongings in Dharmapuri District were bearing palms and only one by virtue of Belamaranahalli town were non-bearing palms. In a comparative case suitable in Salem District moreover out of 55 properties simply in Paparapatti town were non-bearing palms.

2.12 Age of Distribution of Palms

The distribution of palms under age group of 5-15 years and above 15 years is shown in the Table 7.

Table 7 – Distribution of Palms and Age Groups in the Selected Villages

Years	Salem District	Dharmapuri District
5-15 years	10	8
Above 15 years	540	282
Total	**550**	**290**

2.13 Distribution of Nuts in Sample Villages

The scattering of nuts in month smart is showed up in the Table 8, among the picked towns, A. Mallapuram has decently more coconut nuts as 6325 and Arasampatti has more nuts as 12755 in both the Dharmapuri and Salem District Districts independently. Benefit of coconut would give respectably for check to appreciate the efficiency. Here in this examination the yield level assess different towns has been done as exhibited in Table 8.

Table 8 – Palm wise Yield/Nuts

District	Block	Village / Panchayat	Previous Harvest	9 and Above	8	7	6	5	4	3	Total Nuts Found
Dharmapuri	Palacode	A Mallapuram	31800	1134	1104	831	805	755	850	846	6325
		Belamaranachalli	16100	581	236	262	267	332	322	404	2404
		Bevahalli	80700	925	652	663	743	722	637	662	5004
		Chikkamarandahalli	11700	974	614	570	609	556	694	700	4717
		Golasanahalli	21600	620	515	521	624	669	642	714	4305
		Total	**161900**	**4234**	**3121**	**2847**	**3048**	**3034**	**3145**	**3326**	**22755**
Salem	Kaveripattinam	Arasampatti	43130	3266	1824	1696	1579	1447	1426	1517	12755
		Barur	52050	1546	874	959	999	991	1075	1071	7515
		Pannandur	16260	1946	891	1007	1056	1119	1309	1721	9049
		Papparapatti	35700	948	862	789	725	744	710	663	5441
		Vadamangalam	35800	2117	1085	1175	1187	1267	1219	1392	9442
		Total	**182940**	**9823**	**5536**	**5626**	**5546**	**5568**	**5739**	**6364**	**44202**

Table 9 – Annual Yield per Palms

District	Block	Villages / Panchayat	Total Yield from the Palms	Annual Yield per Palms
Dharmapuri	Palacode	A Mallapuram	5191	8724.36
		Belamaranachalli	1823	363.86
		Bevahalli	4079	6855.46
		Chikkamarandahalli	3743	6290.75
		Golasanahalli	3685	6193.27
		Total	**18521**	**28427.7**
Salem	Kaveripattinam	Arasampatti	9489	15947.89
		Barur	5969	10031.93
		Pannandur	6833	11484.03
		Papparapatti	4493	7551.26
		Vadamangalam	7325	12310.92
		Total	**34109**	**57326.03**

Annual Yield Per Palm Calculated By 8+7+6+5+4+3 Month's Nuts Total Multiplied By 100 Divided By 59.5

2.14 Productivity of Coconut

Table 10 – Productivity of Coconut (per Hectare and per Palm)

District	Block	Village / Panchayat	No. of Palms	Area Surveyed (Ha)	Area in Cents	Bearing Palms	Productivity per Ha	Productivity per Palm Estimated Productivity (2013-14)	Productivity per Palm Forecasting (2014-15)
Salem	Kaveri Pattnam	Arasampatti	110	22.86	16.4	60	41857.97	5027.22 (45.7)	5375.0 (48.86)
		Barur	110	40.46	8.5	59	14628.86	1403.66 (12.76)	2320.17 (21.09)
		Paparappati	110	19.76	22.0	50	19107.43	3781.65 (34.37)	4432.01 (40.29)
		Pannandur	110	13.15	18.0	60	52398.61	3289.90 (29.90)	4276.31 (38.87)
		Vadamangalam	110	11.57	32.3	60	63842.28	3045.87 (87.68)	4440.78 (40.37)
		Total	**550**	**107.8**	**97.2**	**289**	**191835.15**	**16548.3 (30.08)**	**20844.27 (37.89)**
Dharmapuri	Palcode	A.Mallapuram	60	6.63	55.5	110	144748.05	9355.96 (155.93)	9627.19 (160.45)
		Belamaranahalli	60	3.43	100.0	110	98257.9	5196.33 (86.60)	6879.38 (114.65)
		Bevuhalli	50	8.90	48.8	110	84730.40	5420.18 (108.40)	8506.57 (170.13)
		Chikkamarandahalli	60	7.28	32.5	109	94188.42	4359.63 (72.66)	4642.54 (77.37)
		Golasanahalli	60	13.07	30.6	110	52123.92	6324.77 (105.41)	8504.38 (141.73)
		Total	**290**	**39.31**	**26.74**	**549**	**474048.69**	**30656.87 (105.7)**	**45039.44 (155.30)**

Per palm benefit has changed from 12 to 155 in the assessment blocks and the ordinary came to 30 for these districts. Given the all-encompassing dry season condition and disillusionment of tempest the palm productivity decreases during 2017-18. Per palm effectiveness may go up are down during 2018-19 it depends on the quantum of water conveyed.

The evaluated productivity and assessing of both are done in the Table 10. The supreme zone covered, bearing palms are in like manner showed up in the table. Taking into account the amount of palms outlined, an area checked on, bearing palms of zone contemplated and nuts found in the audited palms, the improvement of bearing palms is evaluated. In Krishnagri locale, the evaluated advancement of bearing palms is found as 289 and the decided productivity every hectare/year is 191835.15nuts and the effectiveness each palm/year is 30.08 nuts. Because of benefit every

hectare/year, the 191835.15 Vedamangalam block is apparently high (63842.28 nuts) and low (14628.86 nuts) in Barur town of Krishnagiri region. In the Dharmapuri region, the surveyed improvement of bearing palms is found as 549 and the decided productivity every hectare/year is 474048.69. Because of productivity every hectare/year, the A. Mallapuram town is apparently high (144748.05 nuts) and low (84730.40 nuts) in Bevuhalli town of Dharmapuri region.

3.0 CONCLUSION

The quantifiable survey for concurrent appraisal of coconut advancement in the locales of Krishnagiri and Dharmapuri of Tamil Nadu saw that enormous quantities of the estates are fringe and little property and most of them followed mono altering a few farmers got mixed managing structure like banana, jowar and arecanut mango, vegetables and guava Proper legitimate agronomic practices will give more yields in coconut farms. Both set up analysts and the farmers will clasp hands to improve the yield. As the model zones fall under SAT (Semi-Arid Tropics) watering ought to be given intelligently. This will save water. In addition, requested of applying substance inputs, common matter is applied for improving the benefit. During stormy season bury culture be never truly out grass and make the soil more pores. As such, better and intelligent agronomic practices at close by level will achieve improving the yield and improvement. Moreover, the high yielding collections like Veppankulam and Mandya tall arrangements be upheld among the farmers. Water Scarcity has expected a huge part for low productivity. Security nets like yield assurance ought to be spread even more truly to guarantee the palm backwoods during dry season, deluge and Thane. Cataclysmic occasions like whirlwind will generally hurt the palm which would impact the asset farmers.

REFERENCES

Rajensenan, D., (2012, Mar) *"Evaluation of Coconut Palm Insurance Scheme (CPIS)"*, Cochin University of Science and Technology (CUSAT), Cochin, pp. 1-76. Available online at https://agricoop.nic.in/sites/default/files/CDB2152012.pdf.

Sundaram, N., (2011, Aug) *"No Takers for Coconut Insurance Scheme",* The Times of India, Coimbatore. Available online at https://tinyurl.com/2f6nsszw.

Theerkhapathy, S. S., & Chandrakumarmangalam, S., (2014) "Coconut Processing Industries: An Outlook", *Global Journal of Commerce & Management Perspective,* 3(5), pp. 219-221.

Trivedi, S., (2007, Apr) "Coconut Growers Reducing Plantations", Business Standard.

Yamuna, S. M., & Ramya, R., (2016, Mar) "A Study of Coconut Cultivation and Marketing in Pollachi Taluk", *International Journal of Innovative Research in Management Studies,* 1(2), pp. 77-98.