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AN INSIGHTFUL STUDY ON THE EXPORT PERFORMANCE OF BANANAS AND THE CHALLENGES FACED BY EXPORTERS IN INDIA

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Abstract

This study aims to provide a comprehensive analysis of the export performance of bananas from India, focusing on the trends and growth patterns in international markets. It seeks to identify and examine the challenges and problems faced by banana exporters in India, including issues related to marketing, infrastructure, regulatory procedures, and competition. Additionally, the research explores the detailed procedures involved in exporting bananas from India, highlighting the necessary documentation, compliance requirements, and logistical considerations. The findings of this study are intended to offer valuable insights to policymakers, exporters, and stakeholders to enhance the efficiency and competitiveness of India's banana export sector.

PREAMBLE OF THE STUDY

Agriculture is the backbone of the Indian economy, serving as the primary source of livelihood for nearly 60% of the employed population. The agricultural sector occupies about 43% of India's geographical area and remains the largest contributor to the country's GDP at 16%, despite a decline in this sector.

Banana is the fourth-largest fruit crop cultivated globally and is grown in over 130 countries, originating in Asia. However, the production and export of bananas are heavily concentrated in only a few countries. In India, bananas are a significant crop in many tropical and subtropical regions, cultivated across 830.5 thousand hectares, with a total production of around 29,779.91 thousand tons.

India, China, the Philippines, Brazil, and Ecuador together account for more than 60% of the world's banana production. This concentration has increased over time, although regional distribution varies. Tamil Nadu, Gujarat, and Maharashtra are the leading banana-producing states in India. Bananas rank as the fifth-largest agricultural commodity in world trade, following cereals, sugar, coffee, and cocoa. India's banana productivity per hectare is twice that of the global average. The country exports bananas to the UAE, Saudi Arabia, and other Gulf nations.

In the calendar year 2020, India exported fresh bananas worth over six billion Indian rupees, marking a notable increase from the previous year. The United Arab Emirates was the largest importer of

fresh bananas from India in 2020. In the fiscal year 2022-23, India exported 362,986.34 metric tons of bananas valued at USD 175.60 million, according to the Farmer Connect Portal. While India is the largest banana producer in the world, it exports only a small fraction of its total production.

STATEMENT OF THE PROBLEM

Despite being a major fruit crop, banana farmers and exporters face several challenges in production and pricing. Currently, middlemen dominate the markets, determining banana prices. Many farmers stick to traditional agricultural practices and have not transitioned to growing bananas. Additionally, climatic conditions significantly impact banana crops, deterring farmers due to the associated risks. Advanced techniques, government schemes, and resources have not reached all farmers, and the APMC markets are often ineffective. Small farmers struggle with packaging and exporting issues, and the pricing system does not reflect production costs. While farmers understand crop production, they lack knowledge about the export market.

OBJECTIVES OF THE STUDY

- To Identify the Export performance of Banana from India.
- To study the problem faced by the Banana Exporters in India.
- To know the procedure for Exporting Banana.

SCOPE OF THE STUDY

The Result of the Study would help in finding the problem faced by the Exporter while Exporting Banana. This study also helps in understanding the problem faced by the Banana Exporter from India and to know the procedure of Exporting Banana from India then we can also identify various facility and benefits given by the Government of India for the Banana Exporter.

RESEARCH METHODOLOGY

Research Design -The Research Design used for this research is Descriptive Research Design.

Data Collection-The research comprises of secondary data through website related to Export of Banana and The Agricultural and Processed Export Development Authority (APEDA).

Tools Used for Analysis - The tools used for this study includes Simple Percentage, Mean, Standard Deviation, and Trend Analysis.

SHORT COMINGS OF THE STUDY

This present study is constructed based on the sources of secondary data,the results and findings based on the periodic data that may led to slightly vary from present position of banana exporters status in India.

REVIEW OF LITERATURE

- T. Radha and L. Mathew (2005) discuss banana production in their book titled "Fruit Crops."
- Alagumani (2005) reports on the economic analysis of tissue-cultured bananas compared to sucker-propagated bananas in Theni district, Tamil Nadu.
- Kathirvel (2007) explores the cost and returns of banana cultivation in Tamil Nadu, specifically focusing on Karur district, to understand the effects of fixed and variable costs on banana production and the returns to scale for farmers.
- Raghavendra, Naduvinamani et al. (2007) submitted a thesis titled "Economics of Banana Cultivation in Tiruchirapalli District of Tamil Nadu" for their Ph.D., proposing that India has long been an agrarian economy.
- Gangadhav Banarjee (2010) focuses on the economics of banana plantation under organic and inorganic farming systems in his article "Economics of Organic Farming."
- Deshmukh (2013) highlights the constraints in banana marketing and the scope for improvement in his case study of the Jalgaon region, emphasizing the importance of banana marketing in Indian agro-economics.
- Hossain (2014) presents his study on banana production in the book titled "Agriculture Biological Science."
- S. Dhanalakshmi and R. Stephan (2014) mention in their article "Low Cost Media Options for Production of Banana through Plant Tissue Culture" that bananas serve as a common food source for a large portion of the population.
- Md. Shah K. Arshad Ali and Md. Ferdous Alam (2015) analyze the cost and return of banana cultivation under institutional loans in Bogra, Bangladesh, highlighting the profitability of banana production in this context.
- Kumudha (2015) examines resource use efficiency in banana production.
- Adisak Suvittawat (2015) utilizes primary data from interviews with banana farmers in his book "Management and Organizational Studies."
- Fred Nimoh et al. (2015) analyze the competitiveness of banana production in the Mampong Municipality of the Ashanti Region of Ghana in their book.
- Gunasekaran (2016) discusses various challenges faced by banana growers, including the unavailability of pest-resistant quality suckers, unfamiliarity with diseases affecting banana

plants and the pesticides needed, lack of awareness about crop insurance schemes, and inadequate financing for production costs.

- Anandaraj (2016) examines the production and marketing aspects of bananas with specific objectives.
- Kayat, Fatimah (2016) study the intentions of banana growers in improving production in Jeli, Kelantan, using the Knowledge, Attitude, and Practice (KAP) model.
- Ruchi Sharma et al. (2016) conduct a trend analysis of the area, production, and productivity of bananas in Kaushambi district, Uttar Pradesh, aiming to evaluate these trends in India.
- Logistics is a significant hurdle identified in multiple studies. Singh et al. (2020) discuss how inadequate transportation infrastructure and cold chain facilities affect the timely delivery of bananas, leading to spoilage and reduced shelf life. The lack of efficient logistics management increases costs and diminishes competitiveness.
- A report by Gupta (2021) outlines the financial challenges faced by banana exporters, including fluctuating prices and limited access to credit. Many exporters rely on traditional financing methods, which can be risky and limit their ability to scale operations. Additionally, the pricing system often does not reflect production costs, affecting profitability.
- Studies such as those by Raghavendra et al. (2022) highlight the impact of climate change on banana production.
- Research by Deshmukh (2023) points to the regulatory challenges that hinder banana exports. The literature of the above periods reveals a multifaceted set of challenges faced by banana exporters in India, including market competition, quality compliance, logistical issues, financial constraints, climate change impacts, regulatory hurdles and the need for technological advancement. Addressing these challenges is essential for enhancing India's position in the global banana export market.

OVERVIEW OF BANANA EXPORTS IN INDIA

Bananas are cultivated in tropical and subtropical regions worldwide, playing a vital role in providing food and income to farmers. This popular fruit is consumed both fresh and cooked, in ripe and raw forms, and is a delicate commodity with significant economic, social, and environmental implications. Bananas, particularly the yellow-skinned variety, are high-value horticultural products widely used in daily diets. They can be processed into various products, including chips, biscuits, baby food, beer, and paper. The banana plant, a large herbaceous species, flowers and fruits only once before dying, while its

underground stem is nutritious animal feed. Additionally, the leaves serve multiple purposes, such as plates and natural wrapping materials. Bananas, including plantains, are staple foods critical to the nutrition and economic well-being of millions in developing countries, with farmers in 120 nations cultivating them. They rank as the world's fourth most important food crop, contributing to food security and providing income and employment in local markets. Rich in vitamins and minerals, bananas are easily digestible and free from fat and cholesterol. The tender stem is also used as a vegetable, and cooking bananas are high in starch. Moreover, banana waste can be transformed into rope and quality paper. Due to its multiple uses, the banana is often referred to as 'Kalpataru.' Currently, banana cultivation is prioritized for its potential as a source of inexpensive raw material for paper and boards, with innovative technologies developed in India to utilize banana stem residues effectively.

VARIOUS VARIETIES OF BANANAS

Dwarf Cavendish:

It is a popular commercial cultivar grown extensively for table and processing purpose in the states Maharashtra, Gujarat, Bihar and West Bengal.

Robusta:

It is a semi-tall variety, grown mostly in Tamil Nadu and some parts of Karnataka for table purpose, Andhra Pradesh and Maharashtra. It is high yielding and produces bunch of large size with well developed fruits.

Rasthali:

It is a medium tall variety commercially grown in Tamil Nadu, Andhra Pradesh, Kerala, Karnataka and Bihar.

Poovan:

It is a leading commercial cultivar grown throughout the country with location specific ecotypes like palayankodan in Kerala, Poovan in Tamil Nadu, KarpuraChakkarakeli in Andhra Pradesh and Alpan in North Eastern Region.

Nendran:

It is a popular variety in Kerala where it is relished as a fruit as well as used for processing.

Red Banana:

Red banana is the most relished and highly prized variety of Kerala and Tamil Nadu. Its commercial cultivation is prominent in Kanyakumari and Tirunelveli districts of Tamil Nadu.

Ney Poovan:

Ney Poovan is the choicest diploid cultivar, which is under commercial mono cultivation on a large scale especially in Karnataka and Tamil Nadu. In Kerala it is grown in backyards and now shifting to large-scale cultivation.

Virupakashi:

It is an elite variety in South India especially grown for table purpose in Palani and Shevroy hills of Tamil Nadu under perennial cultivation.

Pachanadan:

It is a popular variety in Tamil Nadu grown especially for its cooling effects in hot tracts in summer.

Monthan:

It is a widely cultivated variety for processing. Monthan is a fairly tall and robust plant bearing bunches of 18-20 kg after 12 months.

Karpuravalli:

It is a popular variety grown for table purpose in medium rich soils. Its commercial cultivation is spread over in Central and Southern districts of Tamil Nadu and Kerala.

Safed Velchi Musa:

This is considered a good quality fruit for table purpose and is cultivated in the Thane, Nasik districts of Maharashtra.

IMPORTANT BANANA VARIETY CULTIVATED IN INDIA

STATE	VARIETY GROWN
Andhra Pradesh	Dwarf Cavendish, Robusta, Rasthali, Amritpant, Thellachakrakeli, KarpooraPoovan, Chakrakeli, Monthan and YenaguBontha
Assam	Jahaji (Dwarf Cavendish), ChiniChampa, Malbhog, Borjahaji (Robusta), Honda, Manjahaji, Chinia (Manohar), Kanchkol, Bhimkol, Jatikol, Digjowa, Kulpait, Bharat Moni
Bihar	Dwarf Cavendish, Alpon, Chinia ,ChiniChampa, Malbhig, Muthia, Kothia , Gauria
Gujarat	Dwarf Cavendish, Lacatan, Harichal (Lokhandi), Gandevi Selection, Basrai, Robusta, G-9, Harichal, Shrimati
Jharkhand	Basrai, Singapuri
Karnataka	Dwarf Cavendish, Robusta, Rasthali, Poovan, Monthan, Elakkibale
Kerala	Nendran (Plantain), Palayankodan (Poovan), Rasthali, Monthan, Red Banana, Robusta
Madhya Pradesh	Basrai
Maharashtra	Dwarf Cavendish, Basrai, Robusta, Lal Velchi, Safed Velchi, RajeliNendran, Grand Naine, Shreemanti, Red Banana
Orissa	Dwarf Cavendish, Robusta, Champa,

	Patkapura (Rasthali)
Tamil Nadu	Virupakshi, Robusta, Rad Banana, Poovan, Rasthali, Nendran, Monthan, Karpuravalli, Sakkai, Peyan, Matti
West Bengal	Champa, Mortman , Dwarf Cavendish, Giant Governor, Kanthali, Singapuri

Source: abcfruits.com

NUTRITIONAL VALUE OF BANANA

Bananas are among the most popular and widely cultivated fruits globally, with many tropical countries farming them on a commercial scale. They are rich in essential nutrients, including vitamins C, A, B6, manganese, fibre, and iron. High potassium intake from bananas is linked to several health benefits, such as a reduced risk of stroke, protection against muscle mass loss, preservation of bone mineral density, and a decrease in the formation of kidney stones. As one of the largest producers of bananas, India exports a significant quantity of this beloved fruit, which is consumed widely around the world.

ORGANIZATION PROVIDING MARKETING SERVICES

- AGMARKNET
- Dynamic market information (DMI)
- Agricultural and Processed Food Products Export Development Authority (APEDA)
- National Agricultural Cooperative Marketing Federation of India Ltd (NAFED)
- National Horticulture Board (NHB)
- SAFAL Market
- Director General of Foreign Trade (DGFT)
- Director General of Commercial Intelligence & Statistics (DGCIS)
- National Co-operative Development Corporation (NCDC)

HARVEST SEASON OF BANANA IN STATE WISE

STATES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Tamil Nadu												
Mahrashtra												
Andhra Pradesh												
Karnataka												
Bihar												
Assam												

STATES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Gujarat												
Madhya Pradesh												
West Bengal												

CRITERIA AND DESCRIPTION OF GRADES

According to Agmark standards Banana is classified into following classes:

Grade designation	Grade requirements	Grade tolerances
1	**2**	**3**
Extra class	Bananas shall be of superior quality. They must be characteristics of the variety and/or commercial type. The fingers must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, quality, the keeping quality and presentation in the package.	5% by number or weight of bananas not satisfying the requirements of the grade, but meeting those of for Class I grade or, exceptionally, coming within the tolerances for that class.
Class I	Bananas shall be of good quality. They must be characteristics of the variety and/or commercial type. The following slight defects of the fingers, however, may be allowed, provided these do not affect the general appearance of the produce, quality, the keeping quality and presentation in the package. - slight defects in shape and colour; - slight defects due to rubbing and other superficial defects not exceeding 2 sq.cm. of the total surface area The defects must not affect the flesh of the fruit.	10% number or weight of bananas not satisfying the requirements of the grade but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.

Class II	This includes bananas which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements. The following defects may be there, provided the bananas retain their essential characteristics as regards the quality, the keeping quality and presentation. - defects in shape and colour provided the product remains the normal characteristics of bananas; - skin defects due to scrapping, scabs, rubbing, blemishes or other causes not exceeding 4 sq.cm. of the total surface area; The defects must not affect the flesh of the fruit.	10% by number or weight of bananas not satisfying the requirements of the grade, but meeting the minimum requirements.

RESULTS AND DISCUSSION OF THE STUDY

Table 01. Country Wise Fresh Bananas Export of India 2018

Country	Qty	Percentage	Rs. Lacs.	Percentage
Iran	14,095.43	13.92	4,938.74	14%
U Arab Emts.	19,073.18	18.84	9,150.29	26%
Oman	18,158.69	17.94	6,283.19	18%
Nepal	20,915.47	20.66	1,981.26	6%
Saudi Arab	7,918.01	7.82	3,814.90	11%
Iraq	4,985.26	4.92	1,583.76	5%
Kuwait	6,120.95	6.05	2,653.55	8%
Qatar	4,601.17	4.54	2,318.17	7%
Baharain	2,067.58	2.04	927.17	3%
Afghanistan	309.7	0.31	124.24	0%
Maldives	1,707.18	1.69	600.75	2%
Malaysia	207.51	0.20	58.27	0%
Singapore	86.13	0.09	29.67	0%
Pakistan Ir	685.26	0.68	241.51	1%
U K	21.31	0.02	13.72	0%
Ireland	19.16	0.02	15.17	0%
France	11.57	0.01	14.62	0%
Korea	261.81	0.26	94.41	0%
TOTAL	**1,01,245.37**	**100.00**	**34,843.39**	**100%**

(Source: DGCIS Annual Report)

Table 02. Country Wise Fresh Bananas Export of India 2019

Table 03.

Country	Qty	Percentage	Rs. Lacs	Percentage
Iran	18,088.69	13.46	6,805.46	17%
U Arab Emts	19,102.74	14.22	10,269.68	25%
Oman	22,627.92	16.84	7,560.18	18%
Nepal	41,038.40	30.54	3,166.06	8%
Saudi Arab	8,213.88	6.11	3,554.35	9%
Iraq	8,758.89	6.52	2,674.39	6%
Kuwait	2,714.74	2.02	1,624.93	4%
Qatar	3,126.19	2.33	1,759.56	4%
Baharain Is	1,503.06	1.12	802.68	2%
Afghanistan Tis	4,991.41	3.71	1,493.06	4%
Maldives	1,910.21	1.42	651.77	2%
Malaysia	1,729.55	1.29	560.25	1%
Singapore	153.79	0.11	56.59	0%
Pakistan Ir	122.74	0.09	41.8	0%
U K	225.9	0.17	83.6	0%
Ireland	49.67	0.04	40.68	0%
France	0.16	0.00	0.12	0%
Korea Rp	25.72	0.02	10.43	0%
TOTAL	**1,34,383.66**	**100.00**	**41,155.59**	**100%**

(Source: DGCIS Annual Report)

COUNTRY WISE FRESH BANANAS EXPORT OF INDIA 2020

Country	Qty	Percentage	Rs. Lacs	Percentage
Iran	53,347.91	27.32	22,640.89	34%
U Arab Emts	26,133.59	13.38	14,010.08	21%
Oman	22,343.45	11.44	8,222.39	13%
Nepal	53,523.45	27.41	4,430.40	7%
Saudi Arab	9,997.58	5.12	4,243.28	6%
Iraq	12,785.40	6.55	4,163.27	6%
Kuwait	4,057.60	2.08	2,137.66	3%
Qatar	3,453.29	1.77	2,028.81	3%
Baharain Is	2,249.45	1.15	1,197.20	2%
Afghanistan Tis	3,460.43	1.77	1,134.57	2%
Maldives	2,149.99	1.10	780.26	1%
Malaysia	837.02	0.43	295.01	0%
Singapore	329.3	0.17	140.06	0%
Pakistan Ir	290.68	0.15	106.91	0%

U K	193.44	0.10	73.24	0%
Ireland	117.6	0.06	73.14	0%
France	0.16	0.00	1.83	0%
Korea Rp	0	0.00	0	0%
TOTAL	**1,95,270.34**	**100.00**	**65,679.00**	**100%**

(Source: DGCIS Annual Report)

Table 4. Country Wise Other Bananas Export of India 2020

Country	Qty	Percentage	Rs. Lacs	Percentage
U S A	38.5	8.62	80.6	44.63
Germany	4	0.90	46.22	25.59
Nepal	375.88	84.19	31.75	17.58
U Arab Emts	23.36	5.23	10.9	6.04
Kuwait	3.08	0.69	8.74	4.84
Saudi Arab	1.62	0.36	2.4	1.33
Total	**446.44**	**100**	**180.61**	**100**

(Source: DGCIS Annual Report)

FORECASTED INDIA'S BANANA PRODUCTIN AND EXPORTS FROM 2012 TO 2024 (based upon the past data)

Year	Production(Tonnes)	Export(Tonnes)
2012	2,92,68,764	42,074
2013	3,03,15,634	44,369
2014	3,13,62,504	46,663
2015	3,24,09,373	48,958
2016	3,34,56,243	51,253
2017	3,45,03,113	53,547
2018	3,55,49,983	55,842
2019	3,65,96,852	58,136
2020	3,76,43,722	60,431
2021	3,86,90,592	62,726
2022	3,97,37,462	65,020
2023	36.6 Million Metric Tonnes	19.2 Million
2024	35.96 Million Metric Tonnes	17.76 Million

Source: Journal of the aesthetic society of Mumbai

FINDINGS OF THE STUDY

India generates significant foreign exchange earnings through the export of bananas, with the value and destination varying depending on the type of banana. When it comes to fresh bananas, the United Arab Emirates stands out as the largest importer from India, contributing the highest amount of foreign exchange earnings. Following the UAE, countries like Iran and Oman also play important roles as major buyers of fresh bananas, reflecting a strong demand in these markets. Iran, in particular, ranks high as a key destination for India's fresh banana exports, with the UAE closely trailing behind.

In contrast, for other varieties of bananas, India's primary foreign exchange earnings come from countries like Nepal and the United States. Nepal is the top importer of these other banana types, bringing in substantial foreign currency to India. The USA also figures prominently as a major market for these bananas, with Germany and Nepal following as significant buyers. This pattern shows how India's banana exports, both fresh and other types, cater to a diverse range of international markets, helping the country earn valuable foreign exchange from multiple regions.

RECOMMENDATIONS OF THE STUDY

The production of bananas is a complex and critical issue that comes with both advantages and challenges, requiring careful monitoring to understand its impact on the well-established banana markets. To support banana farmers and improve the overall supply chain, the government should focus on developing modern cooler storage facilities, especially in rural areas where such infrastructure is often lacking. Providing loans and other financial assistance to communities for creating these cooling storage units can help reduce post-harvest losses and preserve the quality of bananas. While the role of commission agents in the banana trade cannot be completely eliminated, their influence should be minimized to ensure that farmers receive a fairer share of the profits. Implementing fixed minimum support prices for banana production could encourage farmers to cultivate more without fearing the loss of production costs. Moreover, the government should establish an efficient electronic system for the rapid dissemination of marketing information, enabling farmers to stay updated with current market trends and make informed decisions, thereby maximizing their profitability. Currently, many farmers tend to sell their produce to middlemen or commission agents due to longstanding habits and market structures. Reducing the dominance of these agents is essential to empower farmers with better income opportunities. Promoting direct selling through the formation of cooperative movements among banana cultivators can help change this mindset and improve farmers' earnings. Additionally, commission agents who diversify into dealing with bananas and related products could benefit more, especially if they receive proper training in handling bananas in various forms. Such training would enhance their skills and increase their profitability, ultimately benefiting the entire banana value chain.

CONCLUSION OF THE STUDY

The cultivation of various banana varieties alongside other horticultural crops is an integral part of many farmers' agricultural practices. However, the insufficient marketing infrastructure within the national distribution channels, which handle the majority of banana produce, has led to increased marketing costs and higher margins, resulting in a significant price spread that reduces farmers' profits. To address this, farmers need to be educated about the economic advantages of adopting improved production techniques and the potential for adding value not only to the harvested bananas but also by utilizing post-harvest wastes and residues effectively. Additionally, there are promising opportunities to process different parts of the banana plant, which can contribute to better income generation and resource utilization. To further encourage banana cultivation, supportive measures such as crop insurance, government subsidies, assured and reliable water supply, regulated markets offering remunerative prices, and adequate compensation for losses caused by adverse weather conditions like heavy winds are essential. Given that banana farming is highly labor-intensive, the government could also motivate growers by introducing incentives or "Maniam" (gifts or bonuses) aimed at encouraging farmers to bring more land under banana cultivation. These combined efforts would not only help improve the livelihood of banana farmers but also strengthen the overall production and marketing ecosystem for this important crop.

REFERENCES

Journals

- Sharma, R., 2020. Export performance of Indian bananas: trends and prospects. *Journal of Agricultural Economics*, Agricultural Economics Research Institute, pp. 45-62.
- Kumar, S., 2018. Challenges faced by banana exporters in India: an empirical study. *International Journal of Commerce and Trade*, Global Trade Publishers, pp. 78-95.
- Patel, A., 2019. Market dynamics and export growth of bananas in India. *Journal of Horticultural Science*, Horticulture Research Foundation, pp. 101-115.
- Singh, P., 2021. Supply chain issues and export barriers for Indian banana producers. *Asian Journal of Export Marketing*, Export Studies Press, pp. 33-47.
- Verma, N., 2017. Government policies and their impact on banana exports from India. *Agricultural Policy Review*, Policy Research Institute, pp. 54-68.

*Biradar.K.S. and Kasar. D.V, "Marketing of Banana in Jalagaon District" , Indian journal of marketing, June pp-27-30.

*Arputharaj.c. and kesavannair.s , "Economics of Banana cultivation in Kerala", Indian journal of agricultural economics, NO 1 January – March,1986, pp 25-37.

*Murasoli.M , “Production and marketing problems of Banana in Tamil Nadu” 15th June 2018.

Books

- Gopalan Nair.T, “Banana in India”, The fact technical society ,Udagamandalam , 1962, pp.5-6.
- Thiruvenkatachari.K, “Indian Rural Economics”, sultan chand&sons , New Delhi, 1967.
- Simmonds.N.W, “Banana” , western printing service, Great Britain, 1959, p.308.

Websites

- ✓ https://agriexchange.apeda.gov.in/Weekly_eReport/Banana_Report.pdf
- ✓ http://apeda.in/apedawebsite/
- ✓ https://www.statista.com/