



# Awareness Level of Geographical Indication on Kanyakumari Matti Banana

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## Authors' contributions

This work was carried out in collaboration among all authors. Author ARVS designed the study, performed the statistical analysis, wrote the protocol, and first draft of the manuscript. Author TD revised and edited the manuscript and Author GS managed the analyses of the study. Author SS managed the literature searches. Author KP provides the statistical contribution. All authors read and approved the final manuscript.

## Article Information

DOI: <https://doi.org/10.9734/jeai/2024/v46i82769>

## Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/121837>

Original Research Article

Received: 09/06/2024

Accepted: 11/08/2024

Published: 14/08/2024

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**Cite as:** V S, Ashik Rogan, T. Dhamodaran, G. Selvarani, S. Senthilnathan, and K. Prabakaran. 2024. "Awareness Level of Geographical Indication on Kanyakumari Matti Banana". *Journal of Experimental Agriculture International* 46 (8):843-48. <https://doi.org/10.9734/jeai/2024/v46i82769>.

## ABSTRACT

The purpose of the study is to evaluate the Awareness level of Geographical indication (GI) got by Matti Banana in the district of Kanyakumari. It was discovered that the majority of respondents have less knowledge about the benefits of Geographical Indications. Farmers in the research region were said to be unaware of the true advantages of GI and its significance for the socioeconomic advancement of the local community. Respondents have medium awareness due to change in market price of GI Tagged Banana which would have caused not understanding the benefits and significance of Geographical indication.

*Keywords: Geographical indication; matti banana; awareness; farmers.*

## 1. INTRODUCTION

A vital component of agriculture, horticulture is highly profitable and necessary for land farming systems, particularly in drylands and coastal areas. It is distinguished by its high productivity, capacity to create jobs, export potential, and flexibility in the face of unfavorable soil and wasteland conditions [1]. Horticulture includes a variety of crops, such as fruits, vegetables, medicinal plants, and flowers. One of the most important fruit crops is the Banana (*Musa sp.*), which is prized for its long, curved shape, starchy flesh, and nutrient-rich profile, which includes vitamins B6, C, and dietary fiber. Brought up in Southeast Asia, Bananas are now grown all over the world and are valued for their health benefits, including enhanced digestion and lowered risk of heart disease [2,3].

In ancient Sanskrit scriptures, Bananas are mentioned, indicating their long history in India. They are essential to Indian traditional medicine, food, and culture. In the past, Bananas came from Southeast Asia and expanded around the world, becoming a staple meal and a valuable crop. Their nutritional importance is well-known, since they include vital vitamins, minerals, and carbs. In addition to their many culinary applications, Bananas are praised for their ability to lower malnutrition. Tamil Nadu makes a major contribution to the nation's total Banana production, making it a vital state in the Banana industry [4,5].

Cultivation of Banana has grown significantly throughout the state. In recent years, output has increased by 32%. In addition to helping to reduce poverty, Bananas offer farmers, dealers, and retailers a stable source of revenue over the long run. Banana exports from Tamil Nadu's Theni area are well-known in South Korea, South Africa, and Europe. Matti Bananas are renowned for their tiny size, fragrant sweetness, and flavor

akin to honey [6,7]. The Matti Banana, grown for generations in the Kanyakumari District, is valued for both its nutritional value and its cultural importance. The Matti Banana's recent regional indication has given producers access to new markets. The study intends to examine awareness levels, look into farmers' perspectives, pinpoint barriers to Matti Banana growth, and determine variables impacting farmers' views of the geographical indication of the fruit [8].

The research's limitations include the study area's specialization and time and resource limits, with a concentration on Matti Banana producers in Kanyakumari District. In 2023, the Matti Banana was assigned a GI tag. The Kanyakumari Banana and Horticulture Farmers Producer Company Limited submitted the application for the GI tag on the Matti Banana. In Tamil Nadu's Kanyakumari district, namely in the blocks of Rajakamangalam, kurunthencode, and Thiruvattar, the Matti Banana farming can be seen and interest among farmers is growing. The Matti Banana is renowned for its powdery texture, honey-like flavor, and sweet scent [9]. Analyzing the awareness level will help policy-makers to help farming community and improving their income.

## 2. METHODOLOGY

In Tamil Nadu, Kanyakumari is known for its cultivation Matti Banana which has unique feature of finger-like shape. Beyond its taste and texture, the Kanyakumari Matti Banana variety is esteemed for its dietary substance. It is the only Banana that can be given to six-month-old babies.

### 2.1 Scope of the Study

The findings of the study would contribute to minimizing the knowledge asymmetry that exists between customers and producers. Policymakers

can better plan for awareness initiatives on GI with the help of the awareness on GI findings, which will help determine the level of producers' knowledge of GI and its spread.

One of India's top states for Banana production is Tamil Nadu. It is ranked second, following Maharashtra. The major Banana-producing districts of Tamil Nadu are Erode (20075 ha), Coimbatore (9123 ha), Thoothukudi (8648 ha), Tiruchirapalli (5591 ha), and Kanyakumari (4459 ha) [10]. Kanyakumari is purposively selected where Matti Banana is originally cultivated. This Banana is known for its fragrance and juicy texture. The Matti Banana, having been accorded the GI tag in 31 August 2023 is a sign used on items that have originated from a particular geographical region and bear either special quality or reputation attributed to that origin [11].

## 2.2 Sources of Data

Rajakamangalam, Kurunthancode and Thiruvattar blocks were purposively chosen because more Matti Banana farmers were found in these blocks. Villages under Rajakamangalam block are Neduvilai West and Putheri. Under Kurunthancode block, Villukuri - B and Villukuri C are selected and under Thiruvattar block, Surulacode and Aruvikarai villages are selected based maximum number of Matti Banana Farmers. 120 farmers were selected as respondents using purposive random sampling method for this study.

## 3. RESULTS AND DISCUSSION

Awareness is the gateway to agricultural literacy, which involves the acquisition of some basic knowledge about agricultural concepts and their impact on the social and economic life of the people in the society. The awareness program in agriculture extension education can orient farmers to the new emerging marketing methods, agricultural marketing reforms, and so on [12]. The respondents were categorized according to their awareness level and presented in Tables 1 and 2.

According to analysis, the majority of respondents had a medium (47.5%) degree of awareness, followed by a low level (32.5%). Merely 20% of participants exhibit a high degree of awareness. This distribution of responses

aligns with findings from similar studies on GI awareness.

Most respondents, 47.5 %, were quite aware of the GI of Matti Banana and understood the benefits associated with a GI tag, including the probability of variation in market price while selling their produce. The medium level of awareness regarding the GI of matti Banana is consistent with findings from other studies on GI awareness. For instance, study from [13] found that while there was general familiarity with GI concepts among European consumers and producers, detailed understanding varied with a significant portion demonstrating moderate awareness levels. This could be attributed largely to the proactive information-sharing behavior of the respondents in keeping them updated on relevant topics such as geographical indications. This findings resonates with the research [14], which emphasized the importance of knowledge dissemination in realizing the benefits of GI. Respondents are conscious that GI refers to the product's origin and has several advantages. But, a smaller fraction of respondents, amounting to 32.5 percent, remain ignorant of these benefits and does not understand the real advantages of the GI tag which resembles there is critical gap in knowledge dissemination. This gap is not unique to Matti Banana and has also been seen in other GI products across different regions. Darjeeling tea producers found that about 30 of small-scale farmers had limited understanding of GI benefits [15]. Additionally, only 20 percent of respondents are highly aware, perhaps due to a keen interest in innovative technologies and attention toward market trends. It is important to spread positive views of GI, and customers who see specific advertisements will be more likely to learn about GI [16]. So, there is necessary action need for advertising GI products.

### 3.1 Awareness Level on GI Matti Banana

In order to determine farmers' awareness levels, important questions about GI are gathered and assessed, along with various GI qualities and benefits related to Matti Banana. The results are displayed in Table 2.

Important questions about GI like GI associated with name of place or production and variation of price due to GI followed by only associations can apply for tag were tabulated to know about the awareness level of farmers.

**Table 1. Respondents’ distribution according to their overall awareness level on geographical indication of matti banana**

S.No.	Category	Frequency	Percent
1.	Low	39	32.5
2.	Medium	57	47.5
3.	High	24	20.0
	Total	120	100.00

*\*Figures in parenthesis indicates percentages to overall awareness of GI*

**Table 2. Respondents’ distribution according to their awareness level on geographical indication (n=120)**

S.No.	Questions	Frequency	Percentage
1.	Geographical indications associated with names and places or production areas with products	82	68.33
2.	An Individual cannot get GI	75	62.50
3.	Registration of a GI is valid for 10 years	32	26.66
4.	Price Variation for GI products	72	60.00
5.	GI is a location specific	82	68.33
6.	GI tag is an important tool that creates consumer awareness and loyalty	47	39.16
7.	Matti Banana as a GI product	89	74.16
8.	Products of the same category not having that origin cannot be claimed as GI	82	68.33
9.	If a Registered geographical indication is not renewed it is liable to be removed from the register	45	37.50
10.	Credibility and benefits of GI	36	30.00
11.	GI of Matti Banana have influence on Farmers	40	33.33

*\*Figures in parenthesis indicates percentages to awareness level on GI*

From Table 2, it is noted that 68.33 percent of respondents have known about the GI tag and it is associated with the place of origin. They know GI and it will help them to increase the rate of Matti Banana. Respondents have seen consumers are gradually increased for this Banana due to its recent popularity and high nutrition values. These particular respondents also have knowledge about products with GI tags when they are produced in places other than its own do not claim the benefits of GI. When it comes to achieving the potential advantages inherent in GIs, Indian stakeholders face several real-world obstacles [17]. Only original produce and products get high value and popularity among consumers.

62.50 percent of respondents acknowledged that a GI tag doesn't belong to an individual because it relates to a place, not a person. The Kanyakumari Banana and Horticulture Farmers Producer Company Limited applied for GI tag in 2021 and got a certificate in August 2023. 60 percent of respondents see there is price changes in the market when there is a product with GI tag. Mostly, GI products have higher prices than normal ones which is acknowledged by most of the respondents. This finding is consistent with studies on other GI products, such as Basmati rice, where premium price has

been a significant driver of GI interest among producers [18]. So, they are aware there will be price variations for GI products. Only 26.66 percent of respondents are known about the validation period for GI tagged certificate. Farmer thinks it is a permanent certificate and does not need to be renewed. only 37.50 percent of respondents feel that if a registered geographical indication is not renewed it is liable to be removed from the register. Which shows they are not fully aware of GI registration process and validation. The lower awareness levels regarding GI registration validity and renewal implications indicate a need for focused education on administrative aspects of GI. Only 30 percent of respondents know about the Credibility and benefits of GI products which was due to intermediaries and lack of awareness. The relatively low awareness (39.16%) of GI as a tool for consumer loyalty and the limited recognition (33.33%) of GI's influence on farmers highlight areas for improvement in stakeholder education. These gaps are not uncommon in the early stages of GI implementation [19].

#### 4. CONCLUSION

The awareness level of GI on Matti Banana is Medium to low. This potentially impact the market for Matti Banana, especially given its

status as a less widely produced crop. Additionally, it was noted based on respondents' awareness level of geographic indication that fewer of them were aware that GI registration is valid for ten years, that a medium percentage of respondents were aware of pricing variations for GI items, but fewer of them were aware of the benefits and credibility of GI. So, there is a lack of comprehensive understanding of the full economic benefits. This partial awareness could limit farmers' ability to fully capitalize on the GI status. The market will be impacted by the medium to low degree of awareness because Matti Bananas are a less widely produced crop than current varieties. The government must develop appropriate consumer protection and marketing plans for Matti Banana in the global market for Indian goods covered by Geographic Indication (GI) to safeguard the native crop of Kanyakumari. Due to a lack of finances, most producer organizations are unable to adequately defend or promote their GI trademarks. So, a collaborative approach fosters partnerships between agricultural institutions and farmer organizations to create a comprehensive GI ecosystem. While the Indian government has been actively registering Geographical Indication (GIs) products, it should also implement methods for marketing and distribution of GI products in both domestic and international markets and also be involved in branding and promoting such products. Officials from the agriculture department may take action to increase awareness of Geographical Indications (GI), such as bringing up the subject at meetings and seminars. Increased export-quality Matti Banana production, a showcase of all GI products, and more intellectual property-related exhibitions.

## 5. IMPLICATIONS FOR PRACTICE AND POLICY

Extension activities must to be stepped up, especially for farmers who lack literacy and are unaware of GI. It is necessary to establish a common hub for Geographically Indicated items and to pursue exportation. Encouragement should be given to young farmers to grow and market GI tag goods. Extension tactics must be developed to raise farmers understanding of the advantages of GI. The varied levels of awareness across different aspects of GI highlight the need for targeted educational and promotional interventions. Collaboration between public and private agencies should co-jointly work on promoting GI innovation. Regular impact assessments should be carried out on product

value, farmer incomes and rural development along with the quality assurance mechanism of GI products. Potential market linkage development should be done by connecting GI product producers directly with potential buyers, both domestic and international.

## 6. LIMITATIONS

This study was restricted to Kanyakumari district of Tamil Nadu. It is advisable to use caution when extrapolating the results to other areas. Some bias may have been created by the dependence on verbal responses. However, Future research could benefit from the findings of this article with area having similar condition. It will also encourage researchers to explore more about GI.

## DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing and editing of manuscripts.

## ACKNOWLEDGEMENTS

We would like to express our sincere gratitude to all the individuals and organizations who have contributed to the publications of this research.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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