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## GEOGRAPHICAL INDICATION IN FRUIT CROP: EXPLORING REGIONAL INDICATIONS

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### ABSTRACT

Geographical indication (GI) serves as a vital tool in protecting the unique identity and quality of products originating from specific geographical regions. In the context of India, the GI tagging of fruit crops has emerged as a crucial mechanism for safeguarding traditional knowledge, preserving cultural heritage, and promoting economic prosperity. Fruit cultivation in India encompasses a rich diversity of crops, ranging from the iconic Alphonso mangoes of Ratnagiri to the luscious Kesar mangoes of Gir. These fruits, along with others such as bananas, guavas, and citrus varieties, not only contribute significantly to agricultural output but also hold immense cultural and nutritional value. Through GI tagging, specific fruit crops are granted legal protection, ensuring that their unique characteristics, flavors, and traditions associated with their production regions are preserved and celebrated. This review explores the importance of Geographical Indications and covered about the different Geographical indicated fruit crops and export potential of GI crops.

**Key words :** Geographical Indications, Fruit Crops.

### Introduction

Geographical Indication (GI) is a form of intellectual property right that recognizes the unique qualities, reputation, and characteristics of products originating from specific geographic regions. In the realm of agriculture, particularly in fruit crops, GI serves as a powerful tool for protecting the identity and heritage of produce tied to distinct geographical locations. It signifies that certain qualities or attributes of a fruit crop are essentially linked to the specific environmental factors, such as soil composition, climate, and traditional cultivation practices, found in a particular region. By affording legal protection to the names and reputations of these products, GI not only preserves cultural heritage and traditions but also fosters economic development by promoting rural livelihoods and sustainable agricultural practices. The registration of geographical indications offers several benefits: Firstly, it prevents unauthorized use of a registered geographical indication by others. Secondly, it

provides legal protection to Indian Geographical Indications, thereby boosting exports. Lastly, it contributes to the economic prosperity of producers of goods produced in a particular geographical territory. A Geographical Indications Registry with all India jurisdictions operates, as per the Geographical Indication of Goods (Registration and Protection) Act 1999. Within agriculture, there are a total of 152 registrations, which can be divided into different categories, namely agronomy crops, fruit crops, vegetable crops, floriculture crops, plantation crops and spice crops. Fruit crops represent the leading agricultural product, with the maximum GI registrations, accounting for approximately 34% (Table 1).

### Geographical Indication in Fruit crops

After the enactment of the GI Act, a total of 51 fruit crops have been registered. Among these, mango holds the highest number of registrations, totalling 14 (Fig. 1). Within the country, Maharashtra leads with a total of 13

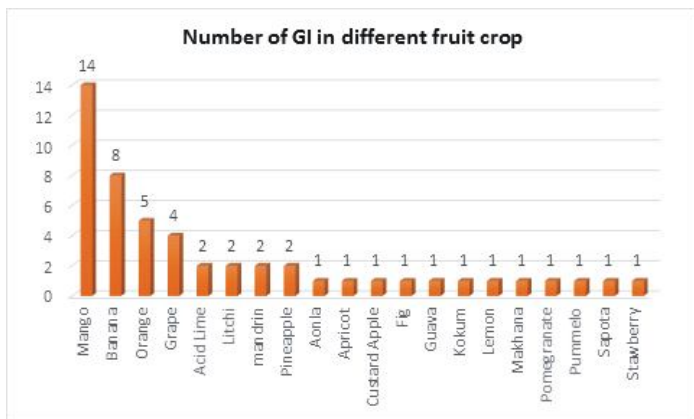


Fig. 1 : Number of GI in different Fruit crops.

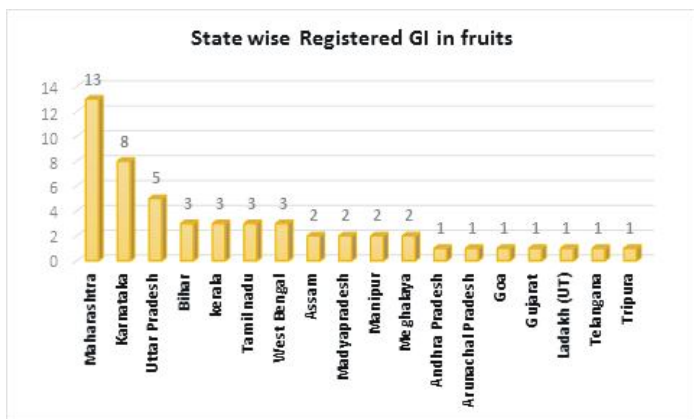


Fig. 2 : State wise registered GI in fruit crops.

Table 1 : Geographical indication of Agricultural commodities.

S. no.	Crops	GI Registered as of 2024
1	Fruit crops	51
2	Vegetable crops	25
3	Floriculture crops	6
4	Plantation crops	23
5	Spice crops	14
6	Agronomic crop	33

registrations across different crops.

The Geographical Indication registration confers the following benefits:

1. GI tags provide legal protection, preventing unauthorized use.
2. They ensure authenticity and streamline consumer access to quality products.
3. GI-tagged goods boost demand, supporting economic growth.
4. Exporting GI-tagged products improves the country's Balance of Payments.
5. GI tags attract tourists and enhance GDP.
6. They optimize resource allocation by encouraging specialization.

7. Embracing GI tags preserves traditional cuisines.
8. GI tags promote systematic food processing, addressing industry challenges.

**Geographical Indication Fruit crops**

**Kari Ishad Mango**



In Ankola, several prominent villages, such as Belse, Shetgeri, Belambara, Mogata and Vandige are known for cultivating the renowned Kari Ishad mango. This mango variety is renowned for its sweet taste and succulent pulp. Notably, Vandige village stands out for its production, yielding approximately 600 tonnes of

fruits per season. According to the Geographical Indications Registry, Kari Ishad mangoes are characterized by their large, oblique to oval shape. A mature tree typically yields around 2000 fruits per season, but these fruits have a short shelf life of about five days. The Ishad mango comes in two variants: Kari Ishad, known for its thin skin, abundant pulp, and sweetness, and Bili Ishad, characterized by its thick skin, lesser pulp content, and sweetness.

**Banarasi Langda**



In the district, there are a total of 1,635 orchard owners cultivating the Banarasi Langda mango variety. Predominantly, it thrives in areas such as Chiraigaon, Arajiline, Baragaon and

Harhua, which are adjacent to the city. Additionally, substantial cultivation of Banarasi Langra occurs within Varanasi city itself, including locations such as Banaras Hindu University, the Ramnagar area and Nadesar Palace. The Banaras Langra mango variety stands out as a prominent cultivar and is widely celebrated for its exceptional taste and flavor, characterized by its thin skin. Naturally, it exhibits a medium size and light green hue during development. Renowned worldwide for its exquisite sweetness, richness, and distinctive flavor, it holds a significant position among mango cultivars in North India.

**Rewa Sunderja Mango**

The Sundarja mango stands out as a unique variety due to its fiberless nature and a sugar type that is safe



for consumption even by individuals with diabetes. Abundantly grown in Govindgarh town of Rewa district, Madhya Pradesh, this variety is particularly notable for its distinct traits. Orchards in Govindgarh yield light-colored Sundarja mangoes, while its popularity is underscored by the release of a postal stamp bearing its name in 1968. Moreover, this mango variety boasts an impressive shelf life, making it a preferred choice for consumers seeking longevity in storage.

### Kuttiattoor Mangoes



The Kuttiattoor mango, a beloved and delicious traditional variety, is cultivated primarily in Kuttiattoor and the neighboring grama panchayats of Kannur district. With its widest distribution in the Kuttiattoor panchayat, these mangoes are a common sight in households, schools, public institutions, and along roadsides in the area. Renowned for its vibrant orange-yellow hue and exceptional taste and flavor, the Kuttiattoor mango holds a special place in the local market. Notably, ripened fruits retain their smooth skin without any speckles or patches, further enhancing their appeal. The unique combination of environmental conditions specific to the cultivation area and varietal characteristics contributes to the distinctiveness of the Kuttiattoor mango, as highlighted by the Kerala Agricultural University release.

### Rataul mango

The Rataul mango, named after the village in Baghpat district, is characterized by its distinctive aroma and flavor.



While not widely known outside of western Uttar Pradesh, it enjoys significant popularity among the locals. These mangoes typically weigh between 150 to 200 grams each, meaning a one-kilogram gift pack typically contains five to six fruits. Rataul mangoes thrive in various soil types, including clay, sandy and loam, with pH levels ranging from 5.5 to 7.5. They produce higher-quality fruits when exposed to elevated temperatures during the fruit development and maturity stages.

### Myndoli Banana

Myndoli Banana, also known as Keli or Moira Banana, is a locally cherished banana variant thriving in the villages of Pernem, Bicholim, and Bardez Taluka within North Goa's district.



It stands out as a vital fruit crop in the region, prized for its exceptional flavor and widespread popularity when compared to other banana

cultivars found in Goa. Historically cultivated in the rural landscapes of Pernem, Bardez and Bicholim Taluka, Myndoli Banana is esteemed for its rich nutritional content, offering ample doses of energy, essential vitamins, and minerals. Regular consumption of Myndoli Banana is linked with a range of health benefits, owing to its nutritive, digestive, and laxative qualities. Moira bananas are renowned for their delicious flavor and extended shelf life. Highly prized as a delicacy, they are frequently utilized in various desserts such as Halwa (Myndolya Kelyachohalvo), as well as being steamed, roasted, fried, incorporated into Shikran, and blended into refreshing banana shakes.

### Jalgoan Banana

Originating from Thalwadi village in Jalgaon district, Maharashtra, this banana variety is primarily cultivated



in the northern regions of the district. Renowned for its high fiber and mineral content, it has garnered attention in international markets, particularly Dubai. The quality of this banana is largely attributed to its proximity to the Tapi River. It boasts impressive specifications including bunch weight (25-35 Kg), duration of

growth (11-12 months), total soluble solids (TSS) content (22-24 oB), acidity level (0.4%) and shelf life (7 days).

### Chengalikondan

Originating from Chengazhikodu village in Thrissur district, Kerala, this banana variety is predominantly cultivated



in Chowannur, Desamangalam, Erumapetty, Kaiparambu, Mundoor, Ollukkara, and Wadakkancherry of the same district. The peel exhibits a soft texture, adorned with a bright



yellow hue and a rusty brown coating. Its pulp boasts a deep orange color. This variety is highly favored for making “Kazhchakula,” a traditional offering to the gods during the festival of Onam. Noteworthy specifications include a bunch weight ranging from 16 to 20 Kg, a growth duration of 10 months, a total soluble solids (TSS) content ranging from 26 to 30 oB, an acidity level of 0.31-0.60% and a shelf life of 7-9 days

### Kaji Nemu

Its elongated and oblong shape sets it apart from other lemon varieties. Renowned for its distinct aroma and health benefits, it has long been a staple in Assamese cuisine. This fruit has found its way to various countries, notably the Middle East. With its unique scent and antioxidant properties, the Assam lemon has significantly enhanced local culinary traditions. The oval-shaped Kaji Nemu boasts higher juice content compared to its counterparts. Widely utilized in both culinary and commercial endeavors, Kaji Nemu is prized for its medicinal attributes.



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### Indi Lime



It is rich in ascorbic acid and lesser seeds. It has a very thin rind, but is highly juicy. It is high demand on national and international market. Indi taluk alone contributes to 30%-40% of the lemon production in the district with over 15,000 farmers

engaged in lemon cultivation.

### Cumbum Panneer Thratchai

The Cumbum Panneer Thratchai, more commonly known as Cumbum grapes, thrives in the Cumbum valley, often referred to as the ‘Grapes City of South India’. This valley serves as the primary cultivation site for Panneer Thratchai, a grape variety also recognized as Muscat Hamburg. This particular variety occupies approximately 85% of the grape-growing areas in Tamil Nadu. Noted for their rapid growth and early maturity, these grapes are utilized in the production of wine, spirits, jams, canned grape juice, and raisins.



### Tripura Queen Pineapple

This geographical indication (GI) refers to a fruit typically characterized by its spiny exterior, golden-yellow color when ripe, and emits a pleasant aroma and flavor during ripening. It is notably known for its organoleptic qualities and lower fiber content. Cultivated in Tripura, the fruit is grown through organic farming methods, ensuring it is free from chemical residues.



### Mahabaleshwar Strawberry



Mahabaleshwar strawberry is a strawberry grown in the hilly slopes of Mahabaleshwar, which accounts for about 85 percent of the total strawberry

produced in India.

### Shahi Litchi of Bihar

This variety is renowned for its appealing crimson-red fruits, delightful aroma, juicy texture, well-balanced sugar-acid content, high pulp-to-seed ratio, large round shape, thin peel and medium-sized cream-colored stone. The plant’s layers gradually expand in areas conducive to growth, such as humid climates and alluvial soil with adequate calcium content. Presently, it stands as one of the significant varieties in Bihar.



### Beed Custard Apple

Beed Custard apples cultivated in the Balaghat ranges of Beed district are renowned for their exceptional sweetness. The distinct taste of Dharur Custard Apples is largely attributed to the high potassium content and micronutrients present in the rocky terrain with shallow, gravelly, well-drained soil found in the Balaghat ranges, particularly in areas like Dharur, Ambajogai and Ashti within the Beed district.



### Purandar Fig

Eighty percent of the figs produced in Maharashtra originate solely from Purandar taluk, famously known as



Anjir Aagat. The distinctive size, shape, skin color and pulpiness of Purandar figs are attributed to agro-climatic factors. Purandar experiences arid or semi-arid conditions with abundant sunshine and moderate moisture in both the

air and soil, making it an ideal location for fig cultivation. The region's red and black soil, rich in calcium and potassium, contributes to the violet hue and substantial size of the figs. Irrigation from wells provides sweet, salt-free water, imparting a special taste to the fruit.

### Solapur Pomegranate

Solapur district accounts for roughly 85 percent of Maharashtra's pomegranate output. Esteemed for its refreshing sweet juice and recognized for its medicinal and nutritional benefits,



Solapur's pomegranates stand out for several distinctive qualities. These include their striking reddish-yellow hue, abundance of arils per fruit, large size, significant weight,

unique sweetness complemented by optimal acidity and a glossy, leathery tough rind. These distinguishing features set them apart from varieties cultivated in other regions of the country.

### Dahanu Gholvad Chikoo

The Maharashtra Rajya Chikoo Utpadak Sangh holds the GI certification for Ghovad Sapota. Gholvad Chikoo



is light brown in colour. The pulp of the fruit is softy, tasty and granular. The shelf life of the fruit is about 2000 fruits per tree. This fruit is renowned for its sweet and distinctive taste, believed to be derived from the calcium-rich soil of Gholvad village.

### Ladakh Raktsey Karpo



While, Ladakh boasts over thirty types of apricots, the Raktsey Karpo variety stands out as unique to the region. Known for its unparalleled sweetness and vibrant colors, this Ladakh-exclusive apricot

features a distinctive white kernel. Notably, the native apricot genotypes of Ladakh, such as Raktsey Karpo, exhibit a white seed coat, a characteristic not found elsewhere in the world apart from Ladakh. This variety is highly preferred by consumers for its freshness. Additionally, Raktsey Karpo apricots contain significantly higher levels of sorbitol compared to fruits with a brown coat. The high-altitude environmental conditions in Ladakh play a crucial role in enhancing the sweetness of the apricots grown in this region.

### Pratapgarh Aonla

PratapgarhAonla holds a distinguished reputation, marked by its historical origin and geographical presence



in Pratapgarh, Rai Bareilly, Jaunpur, Varanasi and Sultanpur. Also known as Amalaki or Indian Gooseberry, the Pratapgarh Aonla tree is native to India, symbolizing both cultural heritage and medicinal

significance. For millennia, its fruits have been utilized in Ayurveda as both food and medicine. Pratapgarh has emerged as a leading producer of aonla fruit, underscoring its significance in the region. Notably, the Pratapgarh Aonla cluster is unique as it extends beyond industrial processes, fostering strong connections with the horticultural and agricultural patterns of the area.

### Export Market opportunities for GI Tagged Agricultural Products from India

The government has placed significant emphasis on connecting farmer producer organizations (FPOs), food producer companies (FPCs) and exporters with international business communities to establish an export hub. In 2020, virtual buyer-seller meets were organized with UAE and USA, two of the largest export markets for APEDA scheduled products, in collaboration with the Embassy of India in Abu Dhabi and the Embassy of India in Washington DC. The meeting on Geographical Indication (GI) products served as a platform for interaction between Indian exporters and importers from the USA and UAE. Exporters were briefed on potential GI products for exports, including Basmati Rice, Mango, Pomegranates, Bangalore Rose Onions, Sangli Grapes/ Raisin, Banana and products from the North-Eastern Region such as Joha Rice of Assam, Black Rice (Chak-Hao), Naga Mircha and their derived processed products. From April 2020 to March 2021, virtual buyer-seller meets were conducted with potential importing countries such as UAE, Indonesia, Kuwait, Iran, Thailand, Bhutan, Belgium, Switzerland, Germany, Saudi Arabia, Uzbekistan, etc., to promote APEDA scheduled products. Special

**Table 2 :** List of Geographical Indication Fruit crop.

S. no	GI tag No.	Geographical Indication	State	Year
<b>Mango</b>				
1	111	Malda Laxman Bhog Mango	West Bengal	2008-09
2	112	Malda Khirsapati (Himsagar) Mango	West Bengal	2008-09
3	113	Malda Fazli Mango	West Bengal	2008-09
4	125	Mango MalihabadiDusseheri	Uttar Pradesh	2009-10
5	132	Appemidi Mango	Karnataka	2009-10
6	185	Gir Kesar Mango	Gujarath	2011-12
7	499	Marathwada Kesar mango	Maharashtra	2016-17
8	241	Banaganapalle Mangoes	Telangana and AP	2017-18
9	551	BhagalpuriZardalu	Bihar	2017-18
10	139	Alphonso	Maharashtra	2018-19
11	707	Rewa Sunderja Mango	Madya Pradesh	2022-23
12	716	Banaras Langda Aam (Mango)	Uttar Pradesh	2022-23
13	843	Kari Ishad Mango	Karnataka	2022-23
14	660	Kuttiattoor Mango	Kerala	2021-22
15	206	Rataul Mango	Uttar pradesh	2021-22
<b>Banana</b>				
16	35	Nanjanagud Banana	Karnataka	2006-07
17	124	Virupakshi Hill Banana	Tamil Nadu	2008-09
18	126	Sirumalai Hill Banana	Tamil Nadu	2009-10
19	133	Kamalapur Red Banana	Karnataka	2009-10
20	479	ChengalikodanNendran Banana	Kerala	2014-15
21	498	Jalgaon Banana	Maharashtra	2016-17
22	680	Myndoli Banana	Goa	2021-22
<b>Citrus</b>				
24	33	Coorg Orange	Karnataka	2005-06
25	131	Devanahalli Pomello	Karnataka	2009-10
26	385	Nagpur Orange	Maharashtra	2013-14
27	375	Arunachal Orange	Arunachal Pradesh	2014-15
28	465	Khasi Mandarin	Meghalaya	2014-15
29	466	KachaiLemo	Manipur	2014-15
30	437	Memong Narang	Meghalaya	2015-16
31	495	Jalna Sweet Orange	Maharashtra	2016-17
32	609	Kaji Nemu	Assam	2019-20
33	745	Indi Limbe	Karnataka	2022-23
34	590	Tamenglong Orange	Manipur	2022-23
<b>Grapes</b>				
35	165	Nashik Grapes	Maharashtra	2010-11
36	211	Bangalore Blue Grapes	Karnataka	2012-13
37	490	Sangli Raisins	Maharashtra	2016-17
38	734	CumbumPanneerThratchai (Grape)	Tamilnadu	2022-23
<b>Guava</b>				
39	50	Allahabad Surkha Guava	Uttar Pradesh	2007-08
<b>Pineapple</b>				
40	130 &141	Vazhakulam Pineapple	Kerala	2009-10

*Table 2 continued...*

Table 2 continued...

S. no	GI tag No.	Geographical Indication	State	Year
41	436	Tripura Queen Pineapple	Tripura	2014-15
<b>Strawberry</b>				
42	154	Mahabaleshwar Strawberry	Maharashtra	2010-11
<b>Litchi</b>				
43	438	Tezpur Litchi	Assam	2014-15
44	552	Shahi Litchi of Bihar	Bihar	2018-19
<b>Custard apple</b>				
45	494	Beed Custard Apple	Maharashtra	2016-17
<b>Fig</b>				
46	500	Purandar Fig	Maharashtra	2016-17
<b>Pomegranate</b>				
47	502	Solapur Pomegranate	Maharashtra	2016-17
<b>Sapota</b>				
48	493	Dahanu Gholvad Chikoo	Maharashtra	2016-17
<b>Makhana</b>				
49	696	Mithila Makhana	Bihar	2022-2023
<b>Apricot</b>				
50	729	Ladakh Raktsey Karpo	Ladakh	2022-23
<b>Aonla</b>				
51	668	Pratapgarh Aonla	Uttar Pradesh	2022-23

Source : <https://search.ipindia.gov.in/GIRPublic/>

attention was given to the export of GI-tagged products. APEDA also organized in-store promotional programs in importing countries in collaboration with foreign retailers such as Al-Zajira Group of Bahrain and Family Food Center of Doha, Qatar. The dispatch of samples of GI-tagged Nanjangud Banana from Karnataka to LuLu Group, UAE, was facilitated to boost exports. Currently, there are 417 registered GI products, with around 150 GI-tagged products being agricultural and food products, out of which more than 100 fall under the category of APEDA scheduled products (Cereals, Fresh Fruits and vegetables, processed products, etc.).

### Conclusion

In conclusion, the geographical indication of fruit crops in India serves as a testament to the intrinsic link between agriculture, culture and commerce. Through effective implementation and promotion of GI, India can not only preserve its fruit-growing traditions, but also carve a niche in the global market, positioning itself as a beacon of quality and authenticity in the realm of agro-based products.

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