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भौगोलिक उपदर्शन पत्रिका

**GEOGRAPHICAL INDICATIONS JOURNAL**



बौद्धिक सम्पदा  
भारत  
**INTELLECTUAL  
PROPERTY INDIA**

भौगोलिक उपदर्शन पंजीकृति,  
बौद्धिक सम्पदा अधिकार भवन,  
जी.एस.टी. रोड, गिण्डी,  
चेन्नै - ६०० ०३२.

**Geographical Indications Registry,  
Intellectual Property Rights Building,  
G.S.T. Road, Guindy, Chennai - 600 032.**



**GOVERNMENT OF INDIA  
GEOGRAPHICAL INDICATIONS  
JOURNAL NO.62**

**NOVEMBER 25, 2014 / AGRAHAYANA 04, SAKA 1936**

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## OFFICIAL NOTICES

**Sub:** Notice is given under Rule 41(1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002.

1. As per the requirement of Rule 41(1) it is informed that the issue of Journal 62 of the Geographical Indications Journal dated 25<sup>th</sup> November 2014 / Agrahayana 04<sup>th</sup>, Saka 1936 has been made available to the public from 25<sup>th</sup> November 2014.

## NEW G.I APPLICATION DETAILS

App.No.	Geographical Indications	Class	Goods
481	Durgi Stone Carving	19	Handicraft
482	Etikkoppaka Toys	20	Handicraft
483	Thanjavur Marakudrai	20	Handicraft
484	Thanjavur Rice Maalai	31	Agriculture
485	Thiruvaiyaru Asoka Halwa	30	Food Stuff
486	Kovilpatti Kadalai Mittai	30	Food Stuff
487	Thoothukudi Macaroon	30	Food Stuff
488	Manapparai Murukku	30	Food Stuff
489	Vengurla Cashew	31	Horticulture
490	Sangli Raisins	31	Horticulture
491	Lasalgaon Onion	31	Horticulture
492	Khadi	24	Handicraft
493	Gholvad Chikoo	31	Horticulture
494	Beed Custard Apple	31	Horticulture
495	Jalna Sweet Orange	31	Horticulture
496	Sangli Turmeric	30	Agriculture
497	Ratnagiri Alphonso Mango	31	Horticulture
498	Jalgaon Banana	31	Horticulture
499	Marathwada Kesar Mango	31	Horticulture
500	Purandar Fig	31	Horticulture
501	Jalgaon Bharit Brinjal	31	Horticulture
502	Solapur Pomegranate	31	Horticulture
503	Prosecco	33	Alcoholic Beverages

**PUBLIC NOTICE**

No.GIR/CG/JNL/2010

Dated 26<sup>th</sup> February, 2010

**WHEREAS** Rule 38(2) of Geographical Indications of Goods (Registration and Protection) Rules, 2002 provides as follows:

**“The Registrar may after notification in the Journal put the published Geographical Indications Journal on the internet, website or any other electronic media.”**

**Now therefore**, with effect from 1<sup>st</sup> April, 2010, The Geographical Indications Journal will be Published and hosted in the IPO official website [www.ipindia.nic.in](http://www.ipindia.nic.in) free of charge. Accordingly, sale of Hard Copy and CD-ROM of GI Journal will be discontinued with effect from 1<sup>st</sup> April, 2010.

**Registrar of Geographical Indications**

**G.I. APPLICATION NUMBER - 435**

Application Date: 29-08-2013

Application is made by **North Eastern Regional Agricultural Marketing Corporation Ltd (NERAMAC)**, 9, Rajpari Path, Ganeshguri, G S Road, Guwahati - 781005, India for Registration in Part A of the Register of **Assam Karbi Anglong Ginger** under Application No - 435 in respect of Spices - Ginger, falling in Class - 30 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) Name of the Applicant** : North Eastern Regional Agricultural Marketing Corporation Limited, (NERAMAC)
- B) Address** : North Eastern Regional Agricultural Marketing Corporation Ltd, (NERAMAC), No.9, Rajpari Path, Ganeshguri, G.S. Road, Guwahati - 781005, Assam, India
- C) Types of Goods** : **Class 30 - Spices - Ginger**
- D) Specification:**

Karbi Anglong District of Assam is considered an important ginger growing area. The agro-climatic conditions of the area, characterized by warm and humid summers with abundant rainfall, and cool winters, are favorable for ginger cultivation. Mostly two varieties of ginger *viz.*, Nadia and Bhola are cultivated in the district. Aizol Variety is also a common variety grown by the farmers.

The rhizome of Nadia variety is medium to bold, light brown in colour, pungent, smells strongly with a spicy smell. Moisture content in the rhizome is 81.71%. It contains 13.27% carbohydrates and 2.11% protein. Fat content is 0.71 %. Total ash content is 1.19 %. The variety contains minerals like Magnesium (375 mg/kg), Potassium (259 mg/kg), Calcium (299mg/kg), Sodium (16.9mg/kg), Manganese (37mg/kg), Iron (130mg/kg), Phosphorus ( 24.7 mg/kg) and Zinc (4.7 mg/kg).

The rhizomes are neutral in reaction (pH 6.48). The crude fibre content of this variety is 1.01% and dietary fibre content is 5.63%. The Oleoresin content is 3.40 %.

Bhola variety is also similar in colour and odour with a pungent and spicy smell. Moisture content in the rhizome is 80.03%. It contains 14.63% carbohydrates and 2.19% protein. Fat content is 0.75 %. Total ash content is 1.06 %. The variety contains minerals like Magnesium(381 mg/kg), Potassium( 370 mg/kg), Calcium (319mg/kg), Sodium (26 mg/kg), Manganese (54mg/kg), Iron(130mg/kg), Phosphorus ( 25.2 mg/kg) and Zinc (3.9 mg/kg).

The rhizomes are neutral in reaction (pH 7.45). It is more fibrous than the Nadia variety. The crude fibre content of this variety is 1.34% and dietary fibre content is 5.82%. The Oleoresin content (4.24 %) is more than the Nadia variety.

### Specification of Assam Karbi Anglong Ginger

Characters	Nadia Variety	Aizol Variety
Rhizome size	Medium	Large
Moisture Content	8 - 12 %	10 - 15%
Starch	56%	45%
Crude Fiber	5.4%	4.1%
Oleoresin		
1) Acetone/ Alcohol extract	5.3 - 7.3%	3.9 - 4.5%
2) Water extract	16 - 23%	14 - 19%
Disease resistance	Susceptible to Rhizome rot	Susceptible to Rhizome rot
Seed rate (q/ha)	12	15
Average yield (q/ha)	160	175

#### E) Name of the Geographical Indication :

### ASSAM KARBI ANGLONG GINGER



#### F) Description of the Goods :

**Family:** *Zingiberaceae*

**Genus:** *Zingiber*

**Botanical Name:** *Zingiberofficinale* Rosc

Ginger (*Zingiberofficinale* Rosc) belongs to the Family *Zingiberaceae* and Genus *Zingiber*. It is an herbaceous perennial, grown as an annual for its spicy underground rhizomes or stems. The plant has fibrous roots that emerge from the branched rhizomes. Closely grouped, unbranched, pseudo-stems or aerial shoots are produced from the rhizomes. The pseudo-stems reach a height of 30–90 cm. The leaves are smooth, dark green in colour and about 15-20 cm long, narrow, lanceolate and with a prominent midrib. Ginger is asexually propagated from portions of the rhizome. The flowers of ginger are usually sterile and rarely set seed. When the plants are about nine months old, the green leaves turn yellow.

Due to its distinct flavour and pungency, it is used in culinary preparations, pharmaceutical preparations, as a flavoring in soft drinks, alcoholic and non-alcoholic beverages, and as a confectionary, pickle, etc. The history of Ginger goes back over 5000 years when the Indians and ancient Chinese considered it a tonic root for all ailments. Ginger is marketed in different forms such as raw ginger, dry ginger, bleached ginger, ginger powder, ginger oil, ginger oleoresin, ginger ale, candy, beer and wine, squash, ginger flakes, etc. The dried rhizome is preferred for commercial uses.



Ginger one of the five most important species of India. Oleoresin, commercially known as '*Gingerin*' is extracted from dried ginger is in great demand by the various food industries.

### Uses

The freshly harvested ginger is used for consumption as green ginger in whole northeastern states. As it is abundantly available in the region, different products like ginger oil, ginger oleoresin can be prepared for export, which are very common in developed countries. Dried ginger (called saunth) can also be prepared and it may be either sold as such or in the form of an off white to very light brown powder. The dried ginger or ginger powder is generally used in manufacturing of ginger brandy, wine and beer in many western countries. Ginger oil is primarily used as a flavoring agent in confectionary and for soft drinks. The ginger is also used for several medicinal purposes.

### G) Geographical area of Production and Map: 17

Karbi Anglong is one of the most important ginger producing belts of Assam. In this districts alone nearly 5,000 farmers cultivate ginger in Ridung, Umlapher and Singhason hills producing 40,000 MT annually. The climatic conditions and soil in Singhasan hills is suitable for growing ginger.

Karbi Anglong Ginger production lies between 24° 05' North to 28° 00' North Latitude and 89° 42' East to 96° 00' East Longitude.

### H) Proof of Origin (Historical records) :

The history of Ginger goes back over 5000 years when the Indians and ancient Chinese considered it a tonic root for all ailments. While Ginger originated in Southeast Asia, it has a long history of being cultivated in other countries. Ginger has been grown in India and China since ancient times, and by the first century traders had brought it to the Mediterranean region. Today ginger is grown in most warm parts of the world.

The ginger family is a tropical group, especially in Indo-Malayasian region, consisting of more than 1200 plant species in 53 genera. Ginger is a traditional crop in Karbi Anglong where it has been cultivated from ancient time in the *Jhum* areas which is a traditional system of agriculture in this region. The North Eastern region of India can be considered as treasure house of ginger diversity. Due to wide variation in climate, topography, soil characteristics and selection by various ethnic groups, in accordance with their production system and quality preference, have resulted in evolution of multitude of local cultivars. The local cultivars are generally named after the locality, where it is popular or based on tuber morphology. For example, Moran *ada* (*ada*=ginger) is a local cultivar from Moranhat of Assam. It indicates, therefore, that ginger is a crop grown in Assam since ancient past. Beside the named landraces, a large number of non-descript cultivar are found in this region.

Although ginger has been growing by the local people of Karbi Anglong from the past in their traditional system of cultivation (*Jhum*), its importance was not known to other parts of Assam and its neighboring states but with the advent of GINFED (Ginger Growers' Co-operative Marketing Federation) which was established to promote cultivation and export of organic ginger in Karbi Anglong, it got its popularity. Due to the involvement of traders and brokers, farmers didn't get their remunerative amount for their produce.

With the inception of GINFED the exploitation of farmers has also reduced a lot and they are getting remunerative price.

In North East India, Assam ranks first in ginger acreage as well as production and Karbi Anglong district alone produces 40,000 MT of ginger per annum. More than half of the ginger oil and oleoresins traded in the world market is from India and ginger produced in Assam, particularly in Karbi Anglong qualifies for export. Ginger produced in Northeast India reported to have higher oil content and oleoresin content than ginger from other parts of India (Spice Board, India).

## **D) Method of Production :**

### **Climate and soil**

Ginger is a tropical crop and is cultivated from sea level to altitudes of about 1500 m MSL. However, the optimum elevation for its successful cultivation is in the range of 300–900 m MSL. Moderate rainfall at sowing time till the rhizomes sprout, followed by fairly heavy and well distributed showers during the growing period and dry weather about one month before harvesting are optimum requirements for its successful cultivation. Farmers of the northeastern region generally prefer to grow the ginger crop in moderate to high altitudes, where shifting cultivation or *jhum* has been carried out.

A rich soil with good drainage and aeration is ideal for ginger cultivation. Ginger grows well in sandy or clayey loam, red loam and lateritic loam soils. Effective drainage is absolutely necessary for the prevention of disease. Ginger should not be grown on the same site, year after year.

### **Land Preparation**

While preparing the land, minimum tillage operations may be adopted. Beds of 15 cm height, 1 m width and of convenient length may be prepared, giving 50 cm spacing between beds. Solarisation of beds is beneficial for checking the multiplication of pests and disease-causing organisms. Solarisation is a technique by which polythene sheets are spread over moist field beds, covering all sides and being thus exposed to the sun for a period of 20-30 days. The polythene sheets used for soil solarisation should be stored safely once the work is completed.

### **Planting**

The planting season for ginger is from “**March–April**”, with the onset of the monsoon. The crop duration is generally around **9-10 months** (March/April to December/January/February). Ginger starts flowering during the month of June-July along with the showers or rains.

Carefully preserved seed rhizomes free from pests and diseases which are collected from organically cultivated farms can be used for planting. However, to begin with seed material from high yielding local varieties may be used in the absence of organically produced seed materials. Seed rhizomes should not be treated with any chemicals.

### **Propagation**

Ginger is propagated by using portions of mother rhizomes called as sets. Each healthy set to be used for planting should be 2.5 to 5 cm long, weighing 20-25 g and having two or three buds each. The seed rhizomes should be treated with Dithane M-45 @ 3 g per liter of water for 30 minutes, drained and then used for planting.

### **Cropping System**

Different types of cropping systems are followed for ginger cultivation in the region. Generally farmers prefer mono cropping of ginger. However, they also practice mixed cropping with maize, chili, brinjal, papaya, cucumber, pumpkin, yam, tree tomato, tapioca and different types of leguminous crops in jhum. Sometimes they intercrop ginger with maize and pineapple.

### **Maintenance of buffer zone**

In order to cultivate ginger organically, a buffer zone of 5-10 m should be left all around to separate the plot from conventional farms. The produce from this buffer zone should not be treated as organic. Being an annual crop, the conversion period required will be two years. Ginger can be cultivated organically as an inter crop or mixed crop provided all the other crops are grown following organic methods. It is desirable to include a leguminous crop in rotation with ginger. Ginger-banana-legume or ginger-vegetable-legume combinations are recommended as good cropping patterns.

### **Cultivar**

Traditional varieties are more pungent and hence have a better market than other varieties. Since the majority of the population in the hilly areas of the northeastern region is non-vegetarian, ginger finds itself used in different culinary preparations. The farmer mostly prefer local varieties as these have less chance of being infected by pests and disease, and can be stored for a longer period (maximum for one week) as compared to high yielding varieties (maximum for 2-3 days). However, higher pungency status of the local varieties indicates higher oleoresin (gingeroil) content, which is suitable for industrial extraction.

### **Seed Selection**

Carefully preserved seed rhizomes, free from pests and disease, collected from organically cultivated farms should be used for planting. However, to begin with, seed material from high yielding local varieties may be used in the absence of organically produced material. Seed rhizomes should not be treated with any chemicals. The seed quantity required varies from region to region and with the method of cultivation adopted. However, the average is 1500-2500 kg per ha. The weight of the seed rhizomes is approx. 25-30 gm and 4-5 cm length in size.

### **Sowing Method (if directly sown)**

At the time of planting, apply 25 gm powdered neem cake and mix well with the soil in each pit at a spacing of 20-25 cm within and between rows. Seed rhizomes may be put in shallow pits and mixed well with decomposed cattle manure or compost mixed with Trichoderma (10 gm compost inoculated with Trichoderma)

However, in the northeastern region, ginger is planted directly in the main field. Seed rhizomes are planted randomly in shallow pits of 5 cm depth and at a plant-to-plant spacing of 15 cm (approximately) in the hill districts of Assam.

After site selection, the jungle is cut and burnt during the months of November to January, followed by burning of the felled trees one month later (February-March). Then the unburned debris is removed from the field. The rhizomes are then planted after a few days. The planting techniques vary from state to state in the NER. In some districts of

Meghalaya, terraces are constructed. In Assam, khurpi is used for digging shallow pits of 5 cm depth with approximately 15 cm plant-to-plant spacing.

### **Fertility Management**

Mulching the ginger beds with green leaves is an essential operation to enhance germination of seed rhizomes and prevent the soil from washing off due to heavy rains. It also helps to add organic matter to the soil and conserve moisture during the later part of the cropping season.

The first mulching with green leaves @ 10-12 t/ha is at the time of planting. It is repeated @ 5 t/ha 40 and 90 days after planting. Use of *Lantana camara* and *Vitexnegundo* as mulch may reduce the infection of shoot borer. Cow dung slurry or liquid manure may be poured on the bed after each mulching to enhance microbial activity and nutrient availability.

For the management of soil fertility, the farmers mostly incorporate leguminous crops like pigeon pea, black gram, cowpea, cluster bean and french bean as green manure crops. Besides improving soil fertility, these are income-generating crops and have a good market demand. Some farmers use wood ash in the field as this increases the potash content of the soil. In Meghalaya, compost or cattle manure is used to enrich soil fertility.

Mulching conserves soil moisture by checking evaporation loss. Bunds are constructed to prevent soil erosion and to retain the topsoil and proper drainage channels are provided to drain off stagnant water. Seasonal legumes are also grown along with ginger to suppress weed growth, minimize soil erosion and enhance soil fertility.

### **Nutrition**

Ginger is a nutrient-exhausting crop but in general, inorganic fertilizers are not used. Therefore, intercropping of ginger with leguminous crops, crop rotation and use of cattle manure are practiced in order to replace the nutrients exhausted by the previous crop. Application of well-decomposed cow dung or compost @ 5-6 t/ha may be applied as a basal dose while planting the rhizomes in the pits. An additional application of neem cake @ 2 t/ha is desirable.

Generally in the northern region ginger cultivation is mostly on freshly prepared land, where adequate nutrients are already available. Addition of cattle manure before plantation is not very popular, though it is advisable in order to enhance the yield.

### **Water Management**

Generally in the northeastern region the source of water is from seasonal rainfall, rivers and natural perennial streams.

Since the source of water is from seasonal rainfall and perennial streams, the assessment of water quality may be carried out as per the norms and guidelines of permitted organic package of practices Requirement.

Moderate rainfall is required at the time of sowing till the rhizomes sprout; fairly heavy and well-distributed showers during the growing period; and dry weather for about a month before harvesting. A proper drainage channel in between the bunds to drain off stagnant water is advisable to ensure optimum drainage for better plant stand. Mulching of ginger beds helps in soil and water conservation. The first mulching is done at the time

of planting with 12.5 tons of green leaves/ha and the second is done after 40 days with five tons of green leaves/ha.

### **Plant Protection**

#### **Pests:**

Shoot borer is the major pest infesting ginger. Regular field surveillance and adoption of phytosanitary measures are necessary for pest management. It appears during July - October period. Spot out the shoots infested by the borer and cut open the shoot and pick out the caterpillar and destroy them. Spray neem oil (0.5%) at fortnightly intervals if found necessary. Light traps will be useful in attracting and collecting the adult moths.

#### **Diseases:**

Soft rot or rhizome rot is a major disease of ginger. While selecting the area for ginger cultivation care should be taken to see that the area is well drained as water stagnation pre-disposes the plants to infection. Select seed rhizomes from disease free areas since this disease is seed borne. Solarisation of soil done at the time of bed preparation can reduce the fungus inoculum. However, if the disease is noticed, the affected clumps are to be removed carefully along with the soil surrounding the rhizome to reduce the spread. Trichoderma may be applied at the time of planting and subsequently if necessary. Restricted use of Bordeaux mixture (1%) in disease prone areas may be made to control it as spot application.

#### **Harvesting:**

For fresh Ginger, the crop should be harvested before attaining the full maturity means when rhizomes are still tender, low in pungency and fiber content, usually from fifth month onwards after planting. Harvesting for the preserved ginger should be done after 5-7 months of planting while harvest for dried spices and oil is best at full maturity i.e between 8-9 months after planting when leaves start yellowing. Rhizomes to be used for planting material should be harvested until the leaves become completely dry. After digging the rhizomes should be treated with fungicide like mancozeb @3-4 gm per litre of water, dried in shade, and stored in pits covered with 20 cm layer of sand alternating every 30 cm layer of rhizomes. These pits should be dug under a thatched roof to protect the rhizomes from rain, water and direct sun.

### **Post Harvest Management**

The crop is ready to harvest in about eight to ten months depending upon the maturity of the variety. When fully mature, the leaves turn yellow and start drying up gradually. Clumps are lifted carefully with a spade or digging fork and rhizomes are separated from dried leaves, roots and adhering soil. The harvested mother rhizomes are separated from the remaining clumps. In the hill districts of Assam, particularly in the North Cachar hill district, farmers keep ginger un-harvested for 2-3 years and the weight of ginger also increases (one bunch of ginger may weigh 300-400 gm after three years). During the dry season the weight of ginger is slightly less, but when harvested during off-season (April-May) with a small shower of rain, the weight increases. The average yield of fresh ginger varies from 20-30 t/ha depending upon the variety.

#### **a) Cleaning**

Cleaning of harvested ginger is usually done by hand. After the soil particles are removed and the mother rhizomes are separated, the harvested ginger is kept in the sun for drying from a few hours to a day. The duration of drying varies from area to area depending upon the availability of sunlight.

### b) Drying

Generally the farmers of the northeastern region keep the harvested rhizomes in the sun for 2-3 hours (hill districts of Assam) or for a day on an average. The harvested ginger is kept on raised wooden/bamboo platforms inside the shed, either for seed or for sale.

### c) Packaging

Cleaned or dried ginger is kept in gunny bags. In hill areas, many of the farmers also carry the ginger in baskets or store the ginger in bamboo baskets lined with dried banana leaves for transportation.

### d) Storage

No storage godown treatment is followed as the ginger is sold within a short span of time (one week). In the hill district of Assam, the harvested ginger is kept in pits with layers of sand in between. Dry leaves or green leaves are used to protect the ginger from sunlight or rain. Thatched huts are also constructed to protect ginger from rain and sunlight.

The rhizomes to be used as seed material should be preserved carefully. The indigenous practice is to spread layers of leaves of *Glycosmispentaphylla* with the seed material. In order to get good germination, the seed rhizomes are stored properly in pits in the shade. Healthy and disease-free clumps are marked in the field when the crop is 6-8 months old and still green. Seed rhizomes are stored in pits of convenient size made inside the shed and protected from the sun and rain. The walls of the pits may be coated with cow dung paste. Seed rhizomes are stored in layers along with well-dried sand/saw dust. Sufficient gap is to be left at the top of the pits for adequate aeration. The pits need inspection once in twenty days to remove shriveled and disease affected rhizomes. In some areas, the rhizomes are loosely heaped over a layer of sand or paddy husk placed in a thatched shed and covered with dry leaves.

## J) Uniqueness:

### Specialty

The quality parameters of Karbi Anglong Ginger are given in Table

Characters	Nadia Variety	Aizol Variety
Rhizome size	Medium	Large
Moisture Content	8 - 12 %	10 - 15%
Starch	56%	45%
Crude Fiber	5.4%	4.1%
Oleoresin		
1) Acetone/ Alcohol extract	5.3 - 7.3%	3.9 - 4.5%
2) Water extract	16 - 23%	14 - 19%
Disease resistance	Susceptible to Rhizome rot	Susceptible to Rhizome rot
Seed rate (q/ha)	12	15
Average yield (q/ha)	160	175

Some characters of local ginger cultivars of Assam

Character	Zeng Ada	Bhola Ada	Moran Ada
Av. Plant Height(cm)	42.3	50.7	45
Av. Weight of Rhizome(without fibrous roots in g)	51.00	38.89	38.59

Colour of the cross section of rhizome	Light yellow	Very light yellow	Dark brown yellow
Oil content (%)	1.2	1.1	1.5
Dry matter recovery (%)	24.4	20.8	17.8

### **Impact of Soil and Climate and Human interference**

Ginger is a tropical crop and is cultivated from sea level to altitudes of about 1500 m MSL. However, the optimum elevation for its successful cultivation is in the range of 300–900 m MSL. Moderate rainfall at sowing time till the rhizomes sprout, followed by fairly heavy and well distributed showers during the growing period and dry weather about one month before harvesting are optimum requirements for its successful cultivation. The prevailing agro-climatic conditions in the ginger growing areas of Karbi Anglong district are very favourable for ginger cultivation. The planting season in this area starts in March April on receiving the pre monsoon rain which helps the rhizomes to sprout. Ginger starts flowering during the month of June-July along with the showers or rains. Harvesting of ginger is from December to February and this period is dry which helps the harvesting operation.

Farmers of this belt generally prefer to grow the ginger crop in moderate to high altitudes, where shifting cultivation or *jhum* has been carried out. A rich soil with good drainage and aeration is ideal for ginger cultivation. Ginger grows well in sandy or clayey loam, red loam and lateritic loam soils. Effective drainage is absolutely necessary for the prevention of disease. Ginger should not be grown on the same site, year after year.

Farmers in Karbi Anglong do not apply any chemical fertilizers nor any plant protection chemical in ginger cultivation.

### **K) Inspection Body:**

Internal Watchdog mechanism

The quality of Assam Karbi Anglong Ginger will be monitored by internal watchdog mechanism in order to maintain the original physical and chemical characteristics as per GI registration by the following committee members

- Producer groups of Karbi Anglong Ginger
- Horticulture department officers
- Technical officer from Spice Board.
- Representative of NERAMAC in Assam

This committee will also help regulate the use of Geographical Indications for the welfare of local farming community. The committee will frame the terms and conditions to use brand name of GI registered Karbi Anglong Ginger by any of the marketing agency. The logo of Karbi Anglong Ginger will be used to create brand image of GI registered produce.

Regulation of GI in the territory

To regulate the use of GI in the territory, the Inspection Structure is proposed to consist the following members:

- Senior Scientist from ICAR Institute
- Technical Officer, Spice Board
- Director of Horticulture, Govt. of Assam

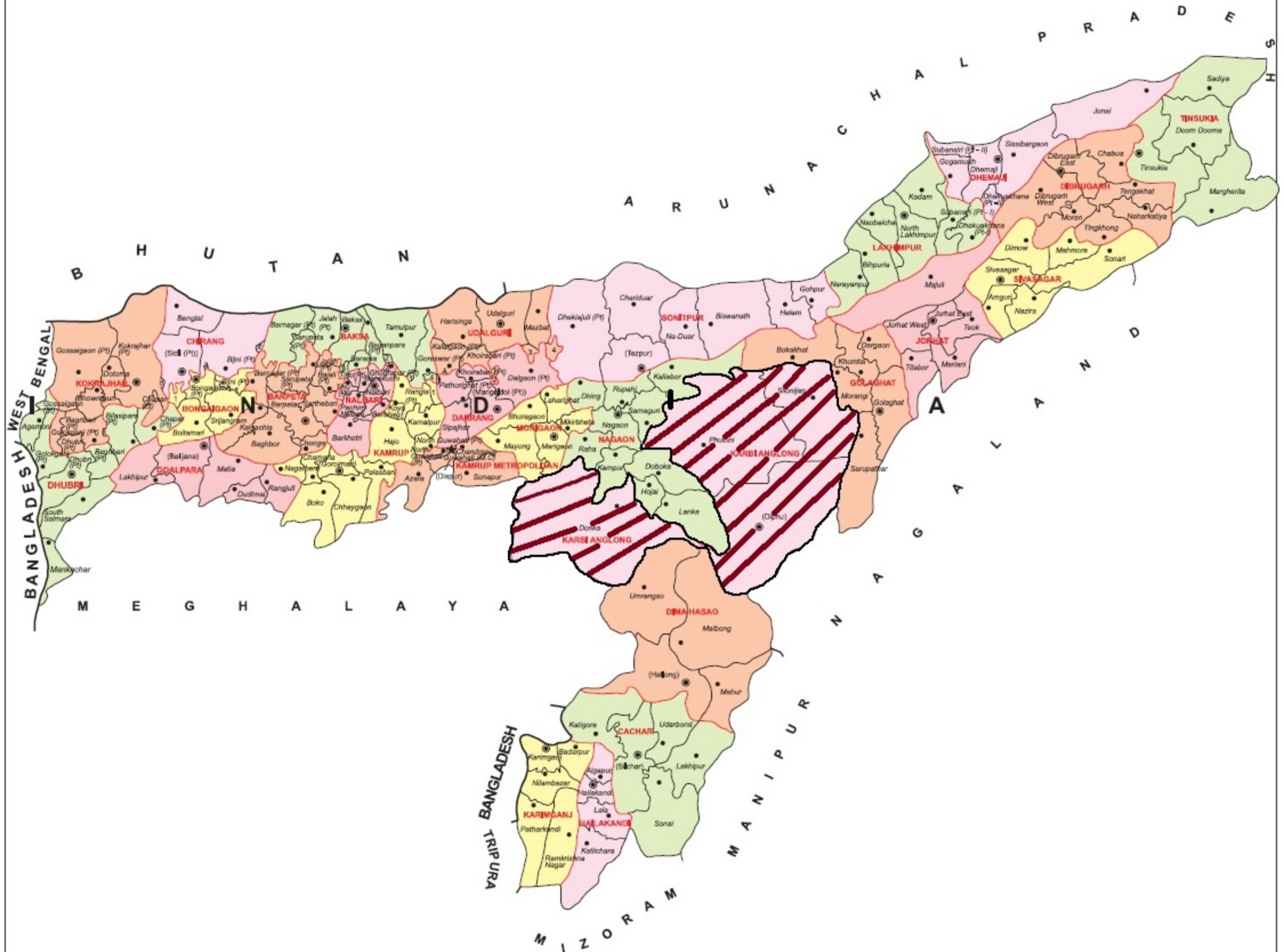
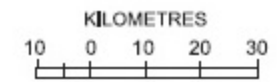
- Farmer Member
- State representative, NERAMAC
- Block level Horticulture Officer (s) from the production area of Karbi Anglong Ginger

Farmers growing Karbi Anglong Ginger in the geographical production area will be identified and will be allotted an identification number to ensure traceability and quality.



# Geographical Area of Production of Assam Karbi Anglong Ginger

## ASSAM



**BOUNDARIES:**

- INTERNATIONAL.....
- STATE.....
- DISTRICT.....
- REVENUE CIRCLE.....

**HEADQUARTERS:**

- STATE.....★
- DISTRICT.....◎
- REVENUE CIRCLE.....●



**Geographical Area of Production of Assam Karbi Anglong Ginger**

*Where the district name differs from its headquarters name, the latter is given within brackets.*

**Karbi Anglong Ginger production are lies between 24° 05' to 28° 00' North Latitude and 89° 42' to 96° 00' East Longitude.**

**Source: Census of India, 2011**

**G.I. APPLICATION NUMBER - 436**

Application Date: 29-08-2013

Application is made by **North Eastern Regional Agricultural Marketing Corporation Ltd (NERAMAC)**, 9, Rajpari Path, Ganeshguri, G S Road, Guwahati - 781005, India for Registration in Part A of the Register of **Tripura Queen Pineapple** under Application No - 436 in respect of Horticulture products (Fruits) - Pineapple falling in Class - 31 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) Name of the Applicant** : North Eastern Regional Agricultural Marketing Corporation Limited, (NERAMAC)
- B) Address** : North Eastern Regional Agricultural Marketing Corporation Ltd, (NERAMAC), No.9, Rajpari Path, Ganeshguri, G.S. Road, Guwahati - 781005, Assam, India
- C) Types of Goods** : **Class 31** - Horticulture products (Fruits) - Pineapple
- D) Specification:**

Tripura Queen Pineapple fruits are spiny, orange yellow in color and emits pleasant aroma and flavor at the ripen stage. The fruits are oval in shape and the average fresh weight of the fruit is 761 g. The pulp of the fruit is yellow in colour. The pulp and the skin of the fruit constitute 81.4% and 13.9 % respectively. The juice content of Tripura Queen Pineapple is 23.68 % and rag is 27.79 %.

The nutritive values of Tripura Queen Pineapple are shown below:

Parameters	Values	Variability in different varieties
TSS ( <sup>0</sup> Brix)	17.2	15.7
Acidity (g/100ml)	0.7616	0.5-1.50
Ascorbic acid (mg/100g)	29.4	27.4-39.0
Total sugars %	10.1	10.8
Moisture %	81.46	87.8
Calcium	0.53mg/ml	20mg/100g
Sodium	0.11mg/ml	NA
Potassium	1.56mg/ml	1.34mg/ml

It contains 17.2 (<sup>0</sup>Brix) total soluble solids. The sugar content is more than 10% and moisture content is 81.46%. Tripura Queen pineapple is rich in minerals particularly in Potassium (1.56mg/ml). The fruits contains calcium (0.53mg/ml) and negligible amount

of Sodium(0.11mg/ml). The acidity of the fruits is very less( 0.7616 g/100ml).The ascorbic acid content is 29.4 mg/100g.

Tripura Queen Pineapple fruits are spiny, golden yellow in color and emits pleasant aroma and flavor at the ripen stage. The fruits are harvested when eyes turns yellow during mid-May to mid-July when the fruit is available. It possesses all the good organoleptic qualities. Juice is bright yellow in colour. TSS varies from 18-19 % depending upon the stage of maturity and season. The pH varies from 4.0 to 4.5. Water content is 80 to 90 percent. Sweetness and unique aroma of Tripura pineapple differentiates it from pineapples of grown in other region of North East India.

Tripura Queen Pineapple is characterized by its distinct aroma and pleasant **organoleptic qualities** with a comparatively lesser fiber content. Apart from this it is almost free from any chemical residue because of the organic cultivation practices followed by farmers at Tripura.

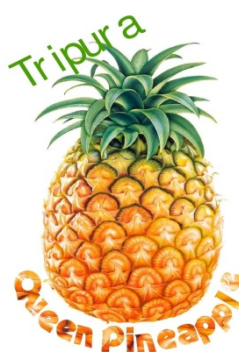
The Physico-chemical characteristics of Tripura Queen Pineapple are:

Parameter	Value
Weight of the fruit (kg)	1.0 to 1.5
Total Suspended Solids (TSS %)	18 to 19
Acidity (%)	0.5 to 0.6
Total Sugar (%)	13 to 14
Vitamin C (mg/100 gm)	28 to 30
Color of pulp	Golden Yellow

Tripura Queen Pineapple Fruits are Spiny, golden yellow in colour and emit pleasant aroma and flavour at the ripening stage. The fruits are harvested when eyes turns yellow during mid-May to mid-July when the fruit is available. Average weight of fruit varies from 1.0 Kg to 1.5 kg. It possesses all the good organoleptic qualities. Its juice is of bright yellow colour. Total Soluble Solids (TSS) varies from 10<sup>0</sup> to 14<sup>0</sup> brix depending upon the stage of maturity and season and the pH value ranges from 4 to 4.5. The water content is from 80% to 90%. The “sweetness” and the “unique aroma” differentiates it with the Pineapples of other region of North East India.

**E) Name of the Geographical Indication :**

**TRIPURA QUEEN PINEAPPLE**



## F) Description of the Goods :

**Family:** *Bromeliaceae*

**Genus:** *Ananas*

**Species:** *Comosus*

**Botanical name:** *Ananascomosus*

Pineapple (*Ananascomosus*) belongs to the Family *Bromeliaceae* and Genus *Ananas*.

The fruit is technically not a single fruit, but a sorosis. It is a medium tall (1.0-1.5m) herbaceous perennial plant with 30 or more trough-shaped and pointed leaves 30–100 cm long, surrounding a thick stem. It has multiple, spirally-arranged flowers along the axis and each of them produce a fleshy fruit that becomes pressed against the fruits of adjacent flowers, forming what appears to be a single fleshy fruit.

The long-pointed leaves are 30 - 100 cm in length, usually needle tipped and bearing sharp, up curved spines on the margins. As the stem continues to grow, it acquires at its apex a compact tuft of stiff, short leaves called the crown or top. Occasionally a plant may bear 2 or more heads instead of the normal one.

At blooming time, the stem elongates and enlarges near the apex and puts forth an inflorescence of small purple or red flowers. The flowers are pollinated by humming-birds, and these flowers usually develop small, hard seeds. Seeds are generally not found in commercially grown pineapple and vegetative propagation by suckers is followed for multiplications.

The fruit are oval to cylindrical-shaped, compound fruit develops from many small fruits fused together. It is both juicy and fleshy with the stem serving as the fibrous core. The tough, waxy rind turns golden yellow when the fruit is ripe.

Commercial pineapple plants are only harvested two to three years, because the fruit begins to get smaller with each year of plant life. The fruits are harvested when eyes turns yellow during mid-May to mid-July when the fruit is available. The pineapple season in Tripura ranges from the month of June to December with July-August as the peak months.

It possesses all the good organoleptic qualities. Pineapple products include pineapple slices, juice concentrates and pulps. ***However Tripura Queen Pineapple is not found suitable for slices because of its smaller size and deep eyes.*** In order to increase the shelf life and to make pineapple juice and slices available even during off-season, canning is the most popular method. The waste parts left from canning plants, including the skin, core and ends, are used to make alcohol, vinegar and food for livestock.

The Queen variety is the table variety normally used for fresh consumption. The pulp is orange to golden yellow with delicious taste and aroma .The “sweetness” and the “unique aroma” of Queen Pineapple of Tripura differentiate it with the pineapples of other region of North East India. Tripura Queen Pineapple has comparatively lesser fiber content. Apart from this, it is almost free from any chemical residue because of the organic cultivation practices followed by farmers in Tripura.

The results of the analysis done elsewhere (School of Agricultural Sciences & Rural Development, Nagaland University Medziphema Campus, Nagaland, India) is shown in table below.

Pineapples are nutritionally packed members of the *Bromeliaceae* family. This delightful tropical fruit is high in the enzyme Bromelain and the antioxidant vitamin C, both of which play a major role in the body's healing process. Bromelain is a natural anti-inflammatory that has many health benefits and encourages healing. Pineapple fruit is very low in Saturated Fat, Cholesterol and Sodium.

### Compositions of Ripe Pineapple Fruit

The chemical composition of the ripe pineapple fruit is shown below:

Constituents	Contents (% fresh weight)	Constituents	Contents (% fresh weight)
Moisture	80.0 – 85.0	Nitrogen	0.045 – 0.115
TSS	12.7 – 12.0	Copper	0.0017
Sucrose	5.9 – 12.0	Manganese	0.002
Glucose	1.0 – 3.2	Carotene (mg)	0.13 – 0.29
Fructose	0.6 – 2.3	Xanthophyll (mg)	0.03
Cellulose	0.43 – 0.54	Esters (ppm)	0.2 – 2.5
Fat	0.1	Vitamins (ug/100g fresh weight)	
Pectin	0.06 – 0.16	Amino benzoic acid	17 – 22
Titrateable Acid (as citric acid)	0.50 – 1.62	Folic acid	2.5 – 4.8
Citric Acid	0.32 – 1.22	Niacin	200 – 280
Malic Acid	0.1 – 0.47	Pantothenic acid	75 – 163
Oxalic Acid	0.005	Thiamine	69 – 125
Ash	0.30 – 0.42	Riboflavin	20 – 88
Calcium	0.02	Vitamin B6	10 – 140
Phosphorus	0.01	Vitamin A	60
Iron	0.09	Ascorbic Acid (mg/100g)	30.0 – 50.2
Fiber	0.30 – 0.61		

Pineapples harvested at half ripe stage can be kept fresh for 1 to 3 weeks at 12°C to 13°C.

### G) Geographical Area of Production and Map as shown in page no.: 29

Tripura is one of the leading pineapples growing states in the country with total production estimated to be around 1,17,531 MT during 2010-11. The area under cultivation is estimated at 6,200 hectares while the yield per hectare is around 19 MT. There are two varieties of pineapples available in the State, Kew variety which is the processing variety and the Queen variety, the table variety normally used for fresh consumption. The pineapple season in Tripura ranges from the month of June to December with July-August as the peak months.

Tripura Queen Pineapple production lies between 22° 56' North to 24° 32' North Latitude and 90° 09' East to 92° 20' East Longitude.

## H) Proof of Origin (Historical records) :

In India cultivation of pineapple is being carried out since very early times in states like Assam, Kerala, Tamil Nadu, Karnataka, Goa, Pondicherry, Andhra Pradesh, Maharashtra, Tripura, West Bengal and other parts of N.E. India. The conditions prevailing in large parts of our country are ideal for pineapple cultivation and it is being cultivated in high rainfall and humid coastal regions of peninsular India and hilly areas of North-Eastern region. India has been developing pineapple products and in the current international food market the North East region Pineapple from India has attained a respectable position. Of late, it has been shown that pineapple can also be grown commercially in the interior plains with medium rainfall and supplementary protective irrigation. It is grown in Assam, Meghalaya, Tripura, Sikkim, Mizoram, West Bengal, Kerala, Karnataka and Goa on a large scale, whereas in Gujarat, Maharashtra, Tamil Nadu, Andhra Pradesh, Orissa, Bihar and Uttar Pradesh on a small scale. Tripura, a tiny state in the North Eastern region, is famous for pineapple.

The congenial humid climate has favored the cultivation of pineapple in the Tripura. Today pineapple is one of the most important crops in Tripura. The finest quality ‘Queen’ variety of Tripura is very much in demand as a fresh fruit throughout India and also in foreign countries, because it is considered to be the best in quality, sweetness and flavor.

Pineapple is being cultivated in Tripura from very early times. There are evidences that different parts of the pineapple plant have been used as medicine to treat various diseases. The root and fruit are either eaten or applied topically as an anti-inflammatory and as a proteolytic agent. It has been traditionally used as an anti-parasitic agent and as an anthelmintic agent in Tripura. A root decoction is used to treat diarrhea.

Pineapple is a traditional crop in Tripura. In their traditional lore, people of Tripura have carefully preserved a belief that “*pineapple would never betray them*”. That, any crop may fail in an unfavourable circumstance, but pineapple is just a viable crop of survival, providing substantial income year after year. This popular belief of the Darlongs, a sub tribe of Mizos, residing in Nalkata area of Kumarghat Block of North Tripura district, 140 km off Agartala, the capital city of Tripura is still instrumental in ensuring bumper pineapple crops in their hamlet.

## I) Method of Production :

### Climate and Soil

Temperature range of 18<sup>0</sup>C to 32<sup>0</sup>C is most favorable for Pineapple Cultivation. In Tripura the summers are warm to hot (19<sup>0</sup> C to 36.8<sup>0</sup>C) and wet, while the winters are cool (8<sup>0</sup> C to 27.5<sup>0</sup>C) and comparatively dry. Plant growth decreases rapidly at mean temperatures below 15<sup>0</sup> C or above 32<sup>0</sup>. In Tripura low temperatures occur from December to January and potentially inhibit growth during winter and Queen Cultivar can initiate reproductive development below 10<sup>0</sup> C; however fruit formation is drastically affected and will eventually impact on the harvest dates. High (above 35<sup>0</sup> C) and low (below 10<sup>0</sup> C) temperatures affect development and retard growth.

Pineapple plants are most productive under dry environments where low rainfall is supplemented by irrigation in well drained soils. Pineapple performs well in relatively low water regimes; it requires as much as 5cm of water per month from rain and irrigation. In the subtropical areas of Tripura elevation and aspects are of particular



importance in deciding the site for pineapple cultivation. Therefore most pineapple plants are planted on hill sides of escape frost. Pineapple thrives well when planted on a north – easterly aspect where they receive the maximum amount of sunlight.

Pineapple plants require sandy soil and good drainage to prevent water logging therefore, raised beds on slopes are utilized. Well drained loamy soil with high organic matter and a pH of 4.5 – 6.5 with low Calcium content is best for pineapple cultivation. The dark brown and reddish brown basaltic and sandy loams are considered ideal for pineapple production. The experiences of north eastern regions shows that fruit grows well in a wide range of soils, from the new alluvium of plains to old alluvium of the sub-mountainous tracts as well as the lateritic soils of the hills so long as land is not waterlogged at any time of year. Probably no other fruit crop is possible where most of the pineapple orchard are exists in the region.

### **Propagation**

Queen Pineapple is commercially propagated by suckers in Tripura. The suckers arise and grow from buds below the ground level. The slips arise from fruit stalks. They are smaller than suckers but borne more in number per plant than suckers. The crown grows on the top of the fruit. It is the vegetative growth at the top of the fruit, attached to the central core of the fruit. Fruit stalks cut into bits known as discs can also be used for propagation.<sup>7</sup>

Among sucker slips and crown – the first two are better for early fruiting but for planting uniformity in sizes i.e. in terms of weight is a per condition for a uniform field and crop situation.<sup>10</sup>

### **Land Preparation**

An area with 30–40% slope is generally selected for Tripura Queen Pineapple cultivation. In the North East Region, the most common method of initial clearing of the land for plantations is by way of slash-and-burn. No formal organic compost is added to the soil for planting. Only in cases where cow dung or other compost materials are available, they may be added to the pits that have been dug for plantation. The land is generally prepared by hoeing, but in areas where the slope is not too steep, the land may be leveled by ploughing to facilitate uniform distribution of water and nutrients. Alternate crisscross rows are made using a bamboo across the slope, which helps in soil and water conservation. In most hill areas of the North East Region, the fields are not ploughed but uniform rows are demarcated either across the slopes or along the slopes where the suckers are planted at uniform spacing (in the case of mono-cultivation) or random spacing if planted along with other perennial crops such as banana, papaya, etc.

### **Planting**

The land should be thoroughly ploughed and pulverized to a good tilth. Tripura Queen Pineapple is mainly planted just at the onset or the offset of monsoon, in order to avoid heavy precipitation in the pre establishment period of the plants.<sup>7</sup> Though the best time for plantation in Tripura would be May to June, but availability of suckers during this period is scarce as the fruits attaining maturity at this time and the cultivators are reluctant to go for desuckering. So in general practice planting in Tripura is done during late August to early October taking the advantage of post monsoon soil moisture.<sup>10</sup>

Before planting the suckers or slips should be sun cured and fry leaf scales at the base should be removed and basal ends dipped in monocrotophos (0.15%) and carbendazin (0.1%) to avoid mealy bugs and fungal infection, respectively. Suckers should be planted

in 10 cm deep holes, but the heart of the suckers must not be buried. Planting may be done in single row or double rows following triangular and rectangular system.

The following is the spacing required for different plant population per hectare.<sup>10</sup>

Plant Population per ha	Distance Plant to Plant within a Row (cm)	Distance Row to Row (cm)	Distance Trench to Trench (cm)	Yield (t/ha)
43,500	30	60	90	45.2
53,300	25	60	90	51.6
63,700	22.5	60 or 45	75 or 90	61.0

### **Fertilizer and Nutrient Management**

Tripura Queen Pineapple plants can be fertilized with 600 kg N, 400 Kg P<sub>2</sub>O<sub>5</sub> and 600 kg K<sub>2</sub>O with 25-30 tons of FYM per ha under dense planting. After the fruits are harvested and slips and suckers are removed the application of fertilizer has been found effective to promote growth and yield.

Pineapple plant is a gross feeder of Nitrogen & Potash, though no fertilizer or manure application is practiced in Tripura. The pineapple in Tripura is produced taking advantage of virgin soil and good rainfall although application of fertilizer can help increase yield.

### **Water management**

Pineapple is grown mostly as a rain-fed crop in Tripura because the region receives ample rainfall. However, irrigation is necessary during dry spell, especially November to March at 20-25 days interval to ensure good crop. Off season production is not possible without 4-6 irrigations in dry hot months, since stomata of pineapple leaves never open during sunlight due to xerophytic nature of plants. The roots are very sensitive to water logging therefore, tilla land is most suitable due to good drainage.

### **Weed management**

Proper control of weeds is very important in Tripura Queen Pineapple growing especially during rainy season. Because of heavy rainfall weeds poses a serious problem and manual weeding accounts for 40% of the total production cost. Diuron @ 2.5–5 kg/ha Seemed to be successful in controlling weeds. Due to long rainy season (April – October) weedicide/herbicide are not so effective in slop pineapple orchards of Tripura and that's why manual weeding or high density plantation is a better option to reduce the density of weed and problem as well.

### **Interculture**

Earthing-up is an essential operation in pineapple cultivation aimed at good anchorage to plants. It involves pushing the soil into the trench from the ridge where trench planting is a common practice. As the pineapple roots are very shallow, the plants are eventually lodged especially under conditions of flat-bed planting in heavy rainfall areas. Lodging of plants when the fruits are developing would result in lopsided growth, uneven development and ripening of fruits. High-density planting would minimize the necessity of this operation, as the plants prop each other preventing lodging.

### **Insects Pests and Diseases**

No serious pest or disease of pineapple is prevalent in Tripura. However, Mealy bug and Heart rot is important pest particularly to smooth Cayenne Cultivar. The Spanish and Queen varieties are resistant to these pests.



### Flowering and Fruiting

Pineapple plant generally flowers after the attainment of certain vegetative growth and ripens to flower stage is attained 11 – 12 months after planting and formation of at least 36 leaves. It is often observed that even after 15 – 18 months of growth under optimal nutritional and environmental conditions only 50 – 60 % plants come to flowering. Therefore, it would be advisable to use the following growth regulators for different months for inducing flowering.

September – January: NAA 20 ppm (planfix 2 ml/4.5 litres of water) + 2% Urea

March – May: Ethrel 10 ppm +2% Urea +0.04% sodium carbonate

All months: Ethrel 25 ppm +2 Urea +0.04% sodium carbonate

### Harvesting and yield

Tripura Queen Pineapple fruits are mainly harvested during mid-May to Mid-July<sup>2</sup> in Tripura. Generally pineapple flowers 10 – 11 months after planting and in Tripura fruits attain maturity after 3 – 4 months of flowering, varied with the variety, time of planting, size of planting materials. The most common Index of harvesting of pineapple is yellowing of ½ basal of the fruit for local market.

The yield from a plant population of 35000–40000/ha is about 40 – 50 tones and that from a plant population of 43000 – 50000/ha normally varies between 50 – 60 tones.

### Post-harvest management

Process	Activities
<b>Cleaning</b>	Pineapple fruits are cleaned by removing the leaves and stalk from both ends
<b>Drying</b>	After harvesting, the pineapple fruits can be kept in the shade for a short duration
<b>Grading</b>	The fruits can be separated and graded according to the size
<b>Packaging and transportation</b>	Waste generating packaging material is to be avoided. The use of material for packaging should be eco-friendly. Clean bamboo baskets are used for packing pineapple both at the farm as well as at processing stage. For long distance transportation, the crown of the pineapple is usually cut half way in order to reduce damages during transportation
<b>Storage godown treatment</b>	Adequate ventilation is required for short duration storage, whereas refrigerated system is suggested to slow down ripening during long storage. Care should be taken to prevent bruising during harvesting and packing. Fruits have to be adequately protected against fungal infection. The level of atmospheric oxygen in the transport container can be reduced to slow down respiration
<b>Storage pests</b>	Rodents, squirrels, etc., destroy the pineapple fruits in the storage godown. Mechanical means and traps can control storage pests. Patchouli can be grown to ward off snakes

### Economic life

Economic life of a pineapple plantation is expected to be around 3 years. After this the plot should be uprooted and replanted.

### **Specialty**

It is the most popular and excellent cultivar of Tripura for fresh consumption. The Queen Pineapple variety produced in Tripura is not just distinctly special in comparison with other varieties grown elsewhere in India but also significantly different in quality from the same variety grown in other adjacent States of North East. It is the most popular and excellent cultivar of Tripura for fresh consumption.

The fruit weighs 0.8 – 1.3 kg. Peduncle is short, fruit-lets or eyes are small, prominent, deep set. When fully mature, the fruits of Tripura Queen Pineapple are spiny, golden yellow in color and emit pleasant aroma and flavor at the ripening stage. The flesh, although less juicy than Cayenne, is crisp (less fibrous), transparent with a pleasant aroma and flavor. The Total Soluble Solids (TSS) content varies from 13 to 17.2 brix and acidity varied 0.6 – 0.8 %. The slips are 1 – 4, suckers 1 – 3 and both are smaller in size than those of Cayenne.

Although these fruits are smaller than the majority of other types of pineapple, but it charms consumers with their golden yellow pulp and delicious fragrance. The juice is bright yellow in color and possesses very pleasant organoleptic qualities. The sweetness and unique aroma of Tripura Queen Pineapple differentiates it with Queen Pineapple of other region of North East India.

The TSS% (Total Suspended Solids) content of Tripura Queen Pineapple is as high as 18–19% whereas Total Sugar% ranges from 13-14% depending upon the stage of maturity and season. One more feature that separates these pineapples from pineapples grown in other parts of the country is their lesser fiber content.

One of the reasons for this success is the agro climatic conditions of Tripura, which are highly conducive for cultivation of various horticulture crops and primarily "Queen" and "Kew"; varieties of Pineapple.

Owing to this high climatic suitability the farmers need not to use chemical inputs for cultivation and neither is there any requirement for irrigation. The North-East region produces more than 40% of the total pineapple of the country and almost 90-95% of the produce is organic. The common varieties produced from this region (North East) are qualitatively different and is said to be among the “Best in the world as they are very sweet (high TSS) with less fiber”.<sup>3</sup> The Tripura Queen Pineapple produced in **Tripura is free of any chemical residue thus making the fruits of Tripura by default Organic.**

The pineapple fruit are highly sensitive to direct sunlight. Both bright sunshine and total shade are harmful for the plant and deteriorates the quality of fruits and therefore shade management plays an important role in cultivation. Farmers at Tripura grow the Tripura Queen Pineapple under the natural shaded canopy of various trees which primarily includes Jackfruit, Litchi and other trees. It is believed that Tripura Pineapple plants grown under the shade of jackfruits produces better quality of fruits.

### Impact of Soil and Climate and Human interference

The required climatic conditions for Tripura Queen Pineapple cultivation vis-à-vis the climatic conditions of Tripura are shown below:

S. No.	Ideal requirements for Pineapple cultivation	Climatic Conditions of Tripura
1	Slightly acidic soil with pH range of 5.5 to 6.0 is considered optimum for pineapple cultivation.	The pH values of Tripura soils vary from 4.05 to 6.05 and in more than 90 percent of the soils, pH is below 5.6.
2	The fruit grows well as long as temperature ranges from 15.5 to 32.5 <sup>0</sup> C.	The maximum and minimum temperatures during winter are 27 <sup>0</sup> C and 13 <sup>0</sup> C and during summer are 35 <sup>0</sup> C and 24 <sup>0</sup> C respectively
3	Optimum rainfall required for pineapple is 1500mm per year	The amount of average total annual rainfall in the State is 2169.4 mm
4	Pineapple grows in almost any type of soil, provided it is free-draining.	The fertile soil of Tripura and well drained topography of <i>Tilla</i> land with moderate steep slopes, gentle to moderate slope and rolling topography provide perfect cultivation conditions.

The overall agro-climatic conditions of Tripura is favourable for pineapple cultivation. In Tripura the summers are warm to hot (24<sup>0</sup> C to 35<sup>0</sup> C) and wet, while the winters are cool (13<sup>0</sup> C to 27<sup>0</sup> C) and comparatively dry. Plant growth decreases rapidly at mean temperatures below 15<sup>0</sup> C or above 32<sup>0</sup>. In Tripura low temperatures occur from December to January and potentially inhibit growth during winter and Queen Cultivar can initiate reproductive development below 10<sup>0</sup> C; however fruit formation is drastically affected and will eventually impact on the harvest dates. High (above 35<sup>0</sup> C) and low (below 10<sup>0</sup> C) temperatures affect development and retard growth.

Pineapple plants require sandy soil and good drainage to prevent water logging therefore raised beds on slopes are utilized. Well drained loamy soil with high organic matter and a pH of 4.5 – 6.5 with low Calcium content is best for pineapple cultivation. The dark brown and reddish brown basaltic and sandy loams are considered ideal for pineapple production. The experiences of north eastern regions shows that fruit grows well in a wide range of soils, from the new alluvium of plains to old alluvium of the sub-mountainous tracts as well as the lateritic soils of the hills so long as land is not waterlogged at any time of year. Probably no other fruit crop is possible where most of the pineapple orchard are exists in the region.

Tripura is one of the largest pineapple growing states in the country and there are more than 100 commercial scale pineapple plantations spread throughout the state. Tripura is turning into a commercial hub with large market in Japan, European countries and even in United States. Experiments on high density planting, staggered planting and use of flower inducing hormones are being conducted to increase the productivity of pineapples at the Horticultural Research Centre at Nagicherra, in West Tripura district. Preliminary results indicate the possibility of advancing the availability of pineapples by about two months before the normal season. Pineapple growers in the state have benefited from these results in terms of yield and increased availability period of fruit during the year. It

has also helped in engaging the workers throughout the year, thus creating employment opportunity.

**J) Uniqueness:**

- (i) It is the most popular and excellent cultivar of Tripura for fresh consumption.
- (ii) The Queen Pineapple variety produced in Tripura is not just distinctly special in comparison with other varieties grown elsewhere in India but also significantly different in quality from the same variety grown in other adjacent States of North East.
- (iii) Although these fruits are smaller than the majority of other types of pineapple, but it charms consumers with their golden/orange yellow pulp and delicious fragrance. The juice is bright yellow in colour and possesses very pleasant organoleptic qualities.
- (iv) The sweetness and unique aroma of Tripura Queen Pineapple differentiates it with Queen Pineapple of other region of North East India. The fruits contain 10.1% total sugars, 17.2<sup>0</sup> Brix TSS and are less acidic.
- (v) Nutritive value of Tripura Queen Pineapple is excellent with good content of Potassium (1.56mg/ml) and Calcium (0.53mg/ml) and negligible content of Sodium (0.11mg/ml).
- (vi) Owing to the high climatic suitability for pineapple cultivation the farmers do not to use any chemical inputs for cultivation and hence the produces are free from pesticide residues.

**(L) Inspection Body:**

Internal Watchdog mechanism

The quality of Tripura Queen Pineapple will be monitored by internal watchdog mechanism in order to maintained the original physical and chemical characteristics as per GI registration by the following committee members:

- i. Producer groups of Tripura
- ii. Horticulture department officers
- iii. Representative of NERAMAC in Tripura

This committee will also help regulate the use of Geographical Indications for the welfare of local farming community. This committee will also help regulate the use of Geographical Indications for the welfare of local farming community. The committee will frame the terms and conditions to use brand name of GI registered Tripura Pineapple by any of the marketing agency. The logo of Tripura Queen Pineapple will be used to create brand image of GI registered produce.

Regulation of GI in the territory

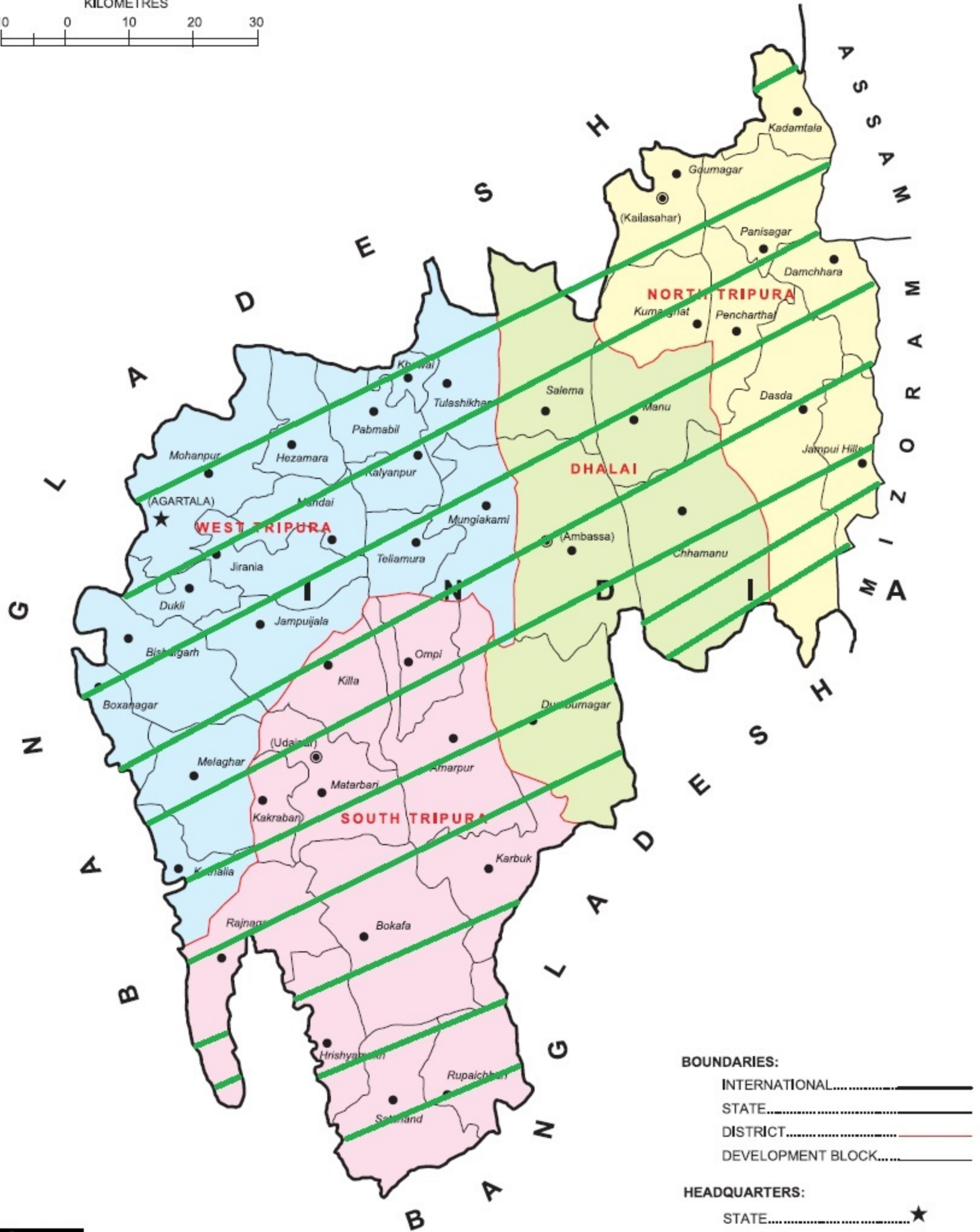
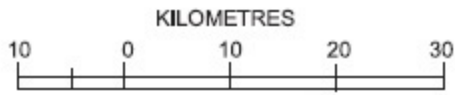
To regulate the use of GI in the territory, the Inspection Structure is proposed to consist the following members:

- Senior Scientist from ICAR Institute
- Director of Horticulture, Government of Tripura
- Farmer Member
- Managing Director or his representative, NERAMAC

Tripura Queen Pineapple in the geographical production area will be identified and will be allotted an identification number to ensure traceability and quality.

# Geographical Area of Production of Tripura Queen Pineapple

## TRIPURA



Geographical Area of Production of Tripura Queen Pineapple

Tripura Queen Pineapple production lies between 22° 56' North to 24° 32' North Latitude and 90° 09' East to 92° 20' East Longitude.

**G.I. APPLICATION NUMBER – 479**

Application Date - 28-03-2014

Application is made by **Chengalikodan Banana Growers Association**, C/o Krishi Bhavan Erumapetty, Post Office: Erumapetty, Thrissur – 680 584, Kerala, India Facilitated by Kerala Agricultural University, Kerala Agricultural University (PO), District: Thrissur, Kerala-680 656, India for Registration in Part A of the Register of **Chengalikodan Nendran Banana** under Application No - 479 in respect of Horticulture product - Banana falling in Class – 31 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) Name of the Applicant** : Chengalikodan Banana Growers Association,
- B) Address** : Chengalikodan Banana Growers Association,  
C/o Krishi Bhavan Erumapetty, Post Office:  
Erumapetty, Thrissur – 680 584, Kerala, India.  
Facilitated by Kerala Agricultural University,  
Kerala Agricultural University (PO), District:  
Thrissur-680 656, Kerala, India.
- C) Types of Goods** : **Class 31** –Horticulture product - Banana
- D) Specification:**

‘Chengalikodan’ Nendran Banana, also known as ‘Chengazhikode’ Banana, is the most popular and traditional tasty Nendran cultivar of Thrissur district, Kerala, South India. It is believed that the name “Chengalikodan” banana came from the term “Chengazhikode” banana which derived the name from the area of origin of this cultivar viz. Chengazhikode area, in Wadakkancherry block in Thrissur District. Chengazhikode area derived its name from "Chengazhi Nambiyars", the then land lords of the area. This variety of Nendran banana is famous for its characteristic taste, bunch shape and fruit colour. Fruits are very tasty with a sugar content of 26-30 percent and shelf life of 7-9 days. The fruits are long (21-25cm), have golden yellow colour for peel (rind) with red borders/patches known as 'Kara'(meaning border in Malayalam). Chengalikodan Nendran banana differs from other Nendran cultivars of Kerala in growth habit, areas of original cultivation, physico-chemical properties of fruit and shape of fruit and bunch.

The bunches are cylindrical in shape with fruits curved upward (obliquely, at 45 degree angle upward) position with a fruit length of 21-25cm. Cylindrical shape with slight ridges is the characteristic fruit feature of Chengalikodan banana. Unlike other Nendran varieties having pronounced ridges for fruits, Chengalikodan banana fruits have slight ridges giving it a ridge-less round look. The mature fruits have pale yellow colour and on ripening turns to golden yellow colour with red borders/patches which determines its beauty and market price. Such beautiful bunches of Chengalikodan are particularly used as 'Kazhchakula' (Kazhcha means gift; Kula means bunch), to be given as offering in temples, especially in the famous Guruvayoor Temple, and also as gift bunches to relatives and friends as token of culture/gratitude during Onam season. Chengalikodan banana requires particular traditional method of cultivation and bunch covering

techniques with dry banana leaves, to create the attractive characteristic colour and shape for the fruits.

Chengalikodan Nendran banana comes in AAB genome. It is mainly cultivated in organic way and duration of crop is 13-14 months.

The unique fruit characters are provided below

1	Peduncle length	31-60 cm
2	Peduncle width	6-7 cm
3	Peduncle colour	Medium green
4	Bunch position	Hanging vertically
5	Bunch shape	Cylindrical
6	Bunch appearance	Lax
7	Rachis type	Present and male bud persistent
8	Rachis position	Falling vertically
9	Rachis appearance	Neutral male flowers on the whole stalk without persistent bracts
10	Rachis length	2.5-3 feet
11	Bract base shape	Small shoulder
12	Colour of bract external face	Dark pink purple
13	Fruits	Biseriate
14	Fruit position	Curved upward(obliquely, at 45° angle upwards)
15	Fruit length	20-25 cm
16	Fruit shape(longitudinal curvature)	Straight (or slightly curved)
17	Transverse section of fruit	Slightly ridged
18	Fruit apex	Lengthy pointed
19	Remains of flower relicts at fruit apex	Base of style prominent
20	Fruit pedicel length	3-5 cm
21	Fruit pedicel width	10 mm
22	Immature fruit peel colour	Medium green
23	Mature fruit peel colour	Light yellow, with red patches
24	Fruit peel thickness	3-4 mm
25	Fruit pulp colour in maturity	Orange yellow



26	Fruit weight	180-310 g/fruit
27	Sugar content (%)	26-30
28	Acidity	0.31-0.60
29	Shelf life	7 - 9days
30	Ripened fruit peel colour	Deep golden yellow, with red patches

Compared to other Nendran banana, Chengalikodan banana peels easily both at maturity stage and at ripened fruit stage. The peel is very thin and the fruits have typical taste and flavor. The uniqueness of product is maintained by adopting organic methods for cultivation and special bunch covering techniques using dry banana leaves.

Due to special bunch covering techniques, fruits develop light yellow colour at maturity. On ripening these fruits develop very attractive golden yellow colour with typical red borders and patches, known as “kara”. The tastiest Chengalikodan banana is mainly produced in the northern sides of Thrissur district, rich in laterite soil, and the water from rivers. Wadakkanchery river and its tributaries flowing through the cultivation areas make the land fertile and rich in organic matter adding to the attractiveness and taste of fruits. Wadakkanchery river originating from Vazhani forest brings rich organic matter to its riverbeds and cultivation of Chengalikodan is more prominent in these organic rich river beds. Suckers of Chengalikodan are planted in the month of September so as to make the harvest during Onam season (August-September) in Kerala. Medium sized suckers with needle leaves are selected from mother plants for planting.

**E) Name of the Geographical Indication:**

**CHENGALIKODAN NENDRAN BANANA**



**F) Description of the Goods:**

The botanical name of banana is *Musa* spp. Chengalikodan is a clone of Nendran under AAB Genome and Plantain sub-group. The duration of crop is 315-330 days and days taken for bunch maturation is 90-100 days. Bunches can weigh up to 12-25 kg with 5-8 hands. The total number of fruits in a bunch is 45-85 according to growing conditions.

Chengalikodan banana is valued for its taste, golden yellow colour with red borders, slight and smooth ridges and appealing bunch structure and hence fetches a premium price in market. Chengalikodan is used as a premium fruit compared to other Nendran cultivars, as its main use includes offering to deity in temples and gift to relatives/friends during Onam season as a token of culture/gratitude.



The morphological description of Chengalikodan is given below.

**a. Plant characters:**

1	Pseudostem aspect and height	Normal and tall
2	Pseudostem colour	Medium green
3	Pigmentation of underlying pseudostem	Pink purple
4	Pseudostem appearance	Shiny (not waxy)
5	Blotches at petiole base	Large blotches
6	Blotches colour	Dark brown
7	Colour of leaf	Green
8	Leaf blade length	171-220cm
9	Leaf blade width	71-80 cm

**a. Inflorescence/male bud**

1	Peduncle length	31-60 cm
2	Peduncle width	6-7 cm
3	Peduncle colour	Medium green
4	Bunch position	Hanging vertically
5	Bunch shape	Cylindrical
6	Bunch appearance	Lax
7	Rachis type	Present and male bud persistent
8	Rachis position	Falling vertically
9	Rachis appearance	Neutral male flowers on the whole stalk without persistent bracts
10	Rachis length	2.5-3 feet
11	Bract base shape	Small shoulder
12	Colour of bract external face	Dark pink purple

Absence of persistent bracts on rachis gives beautiful appearance to the bunches. Normally the rachis will be retained on bunches taken for marketing as '*Kazhchakula*'.

**b. Fruits**

1	Fruits	Biseriate
2	Fruit position	Curved upward(obliquely, at 45 <sup>0</sup> angle upwards)
3	Fruit length	20-25 cm
4	Fruit shape(longitudinal curvature)	Straight (or slightly curved)
5	Transverse section of fruit	Slightly ridged
6	Fruit apex	Lengthy pointed
7	Remains of flower relicts at fruit apex	Base of style prominent
8	Fruit pedicel length	3-5 cm
9	Fruit pedicel width	10 mm
10	Immature fruit peel colour	Medium green
11	Mature fruit peel colour	Light yellow, with red patches
12	Fruit peel thickness	3-4 mm
13	Fruit pulp colour in maturity	Orange yellow
14	Fruit weight	180-310 g/fruit
15	Sugar content (%)	26-30
16	Acidity	0.31-0.60
17	Shelf life	7 - 9days
18	Ripened fruit peel colour	Deep golden yellow, with red patches

**c. Evaluation:**

1	Planting to shooting	225-235 days
2	Crop duration	315-330 days
3	Days taken for bunch maturation	90-100 days
4	Bunch weight	12-25 kgs
5	No. of hands	5-8
6	No. of fruits	45-85

7	Pseudo stem height	2.1-3.3 m
8	Pseudo stem girth	50 cm
9	No. of functional leaves at flowering	15
10	No. of functional leaves at harvest	5-6

Uniqueness of Chengalikodan fruit is its colour, shape, taste and also bunch characters. Unlike other Nendran bananas, Chengalikodan banana, when boiled, becomes soft and protrudes out through sides. For better shape and colour, the bunch will be fully covered with dry banana leaves. The red patches/borders seen on the fruits add beauty and price to bunch. Traditional bunch training and formation techniques are used to enhance the beauty of bunches. At harvest for fetching premium price for bunches, peduncle and male inflorescence rachis will be retained. The slightly curved fruits and male inflorescence rachis gives appearance of elephant's tusk and trunk to the bunches. Attractive bunches are selected as 'Kazhchakula' (gift bunch) to give as gift to temples and dignitaries.

**Kazhchakula:** Uniqueness of bunches offered as gifts (Kazhchakula) is developed during bunch growth through special care and attention given to both mother plant and bunch. Support for the pseudo stem and peduncle is provided to balance the weight of the bunch. Bunches are fully covered with dry banana leaves adopting traditional technologies. Roll of dry leaves (known as theeta) are kept between each hand, and fruits to obtain a elephant tusk look to the fruits. Kudappan /Maani (male inflorescence) is retained to add to the beauty of the bunch.

Chengalikodan Banana get premium prize compared to other Nendran varieties. When ordinary Chengalikodan banana grown on large scale get an extra price of Rs.10/- than other banana, Chengalikodan Nendran banana grown in smaller quantities for the purpose of Kazhchakula fetches premium price in the range of Rs.1500.00-3000.00/ bunch on the basis of colour, beauty, and shape of fruits and arrangement of fruits on bunch.

**G) Geographical Area of Production and Map as shown in page no.: 41**

Thrissur district lies in the central part of Kerala, in between North Latitude 10°10'20'' and 10°46'54'' and East Longitudes 75° 57'20'' and 76° 54'23'', with Malappuram district in Northern part, Palakkad district in the Eastern side, Ernakulam district in the Southern part of Thrissur district.

Details of specific blocks in Thrissur districts recognized for Chengalikodan cultivation are provided below.

Sl. No.	Name of Block	Name of Panchayath
1	Chowannur	Velloor
2	Puzhakkal	Kaiparambu
		Tholur
		Avanur
3	Wadakkanchery	Erumapetty

4	Pazhayannur	Chelakkara
		Pazhayannur
5	Ollukkara	Pananchery
		Nadathara
		Puthur
		Madakkathara

These blocks belong to Thalappilly & Thrissur taluks. Kodakara block, Thrissur Corporation, Mullessery block, Chavakkad block etc. are the nearby areas of Chengalikodan cultivation.

**Climate:** Thrissur is a land situated between the Great Arabian sea in the West and mountain ranges of Western Ghats in the East. A moderate temperature is maintained in the district. The district has a tropical humid climate with an oppressive hot season and plentiful and fairly assured seasonal rainfall. Average altitude is 2.83m above mean sea level.

The hot season from March to May is followed by the South-West monsoon season from June to September. After July the rainfall decreases. October and November are the monsoon season. The rains stop by the end of December and the rest of the period is generally dry. The average annual rainfall is 3159 mm.

The average daily maximum temperature in March & April, which are generally the hottest months, is about 31°C (83°F) in the coastal regions and 36°C (97°F) in the interior. The air is highly humid throughout the year, the relative humidity being generally over 70%, but in the interior regions, the afternoon humidity during the period of December to March, is between 40% to 50%.

Winds are generally light to moderate and they strengthen in the monsoon season. In the South-West monsoon season the winds are mainly Westerly or South Westerly. During the rest of the year winds are mainly North Easterly to Easterly in the morning and blow from direction between South-West and North-West in the afternoons.

Chengalikodan suckers are planted in the month of September and irrigation starts after 3-4 months when summer starts. Irrigation will be provided twice or thrice a week for better bunch yield.

**Soil:** The District may be divided into three well-defined zones. Descending from the heights of the Western Ghats in the East, the land slopes towards the West, forming three distinct natural divisions—the high lands, the plains and the sea-board. The high lands are thickly forested whereas the plains, which are fertile, are cultivated for food and cash crops. Laterite soil is the major soil type in Thrissur, which is fertile and appropriate for banana cultivation.

Wadakkanchery river originating from Vazhani forest runs about 30km to West, with Vazhani dam in between, through Machadu hill ranges and joins Arabian Sea at Enamakal. The river beds of Wadakkanchery river and its tributaries are ideal for Chengalikodan banana cultivation.

Wadakkanchery river beds with rich alluvial deposits play an important role in improving the soil fertility of the region which also contributes to the unique taste of Chengalikodan banana in Thrissur.

#### **H) Proof of Origin (Historical records):**

It is believed that Chengazhikode area of Wadakkancherry block in Thalappilly Taluk in Thrissur district is the area of origin of cultivation of this banana. Mention about Chengalikodan is seen in many ancient books. It is mentioned in the book "Chengazhi Nambiyar- VamsholpathiyumCharithravum" (Genesis and History of Chengazhi Nambiyar sect) written by Sri. V.P.ChandrashekarNambiyar. In this book he has described the genesis of Chengazhi Nambiyars from "Azvancheri Thambakal." In Thalappilly Taluk, (part of earlier Cochi Kingdom), Chengazhi Nambiyars were very powerful and their ruling area came to be known as Chengazhikode. The banana cultivated in Chengazhikode came to known as Chengazhikodan banana which later became popular as Chengalikodan banana. There is a temple near to Chengazhikode area (Kariyannur) known by the name Chengazhi ValiChowaMuthappan Temple. (Plates 34,35,36,37,38,39). In this book he has also mentioned about products that were taken to Sri. Padmanabhaswami Temple, Thiruvananthapuram for Mura Japam (yearly prayer by members of royal family). Unique products from different localities were sent to Thiruvananthapuram to use in Mura Japam. Major products sent from Chengazhikode area for Murajapam were Chengazhikodan Nendran banana and Chengazhikodan arecanut.

The variability in Nendran Group in India has been characterized and evaluated under a World Bank funded project implemented at Banana Research Station, Kannara, Kerala Agricultural University during 1998-1999. Ten morphotypes of Nendran were recognized based on detailed morphological description including Chengalikodan and a key was developed for their identification.

#### **(I) Method of Production:**

Nendran is the commercial variety of banana in Kerala and is in demand throughout the year. Among the Nendran types, Chengalikodan variety gets its full and peak demand during the Onam Season *i.e.* August -September. Therefore Chengalikodan Nedran is planted in August - October months so that harvest coincides with Onam season.

Banana generally prefers tropical humid low lands. Optimum temperature is 27<sup>0</sup>C. Soil with good fertility, drainage and assured supply of moisture are best suited. Planting is done either in pits or furrows.

**Preparation of land:** Laterite soil with good sunlight is ideal for Chengalikodan banana. Fields with proper drainage and assured irrigation water are specifically selected for the purpose. Field is prepared by ploughing followed by digging pits or making furrows and ridges (Plates 1,2,3,4).

**Selection of suckers for planting:** 3 - 4 months old, disease free sword suckers (*soojikannu*) from healthy clumps are selected. Generally medium sized suckers are used for planting, if Onam falls in early August. But if the festival is delayed till August end or early September, then farmers go for planting small sized suckers. Time of planting is adjusted to ensure that harvest correctly coincides with festival season. Planting time and sucker selection are based on traditional knowledge. Suckers are separated from mother

clump within one week of harvest of the bunch. Pseudostem of selected sucker will be cut back to a length of 10-20cm, and old roots will be removed. The rhizomes will then be dipped in cowdung slurry and ash for 20 minutes and dried in the shade for 12-15 days and will be used for planting.

**Spacing:** In pit planting, 2.0x2.0 m to 2.0x2.5 m spacing (2000-2500 plants/ha) is commonly adopted. In pit planting, size of the pit is 50x50x50cm. For furrow planting, furrows of 75 cm width, 50 cm depth and required length are prepared, keeping a distance of 2.5m between furrows. Inside the furrows, at the time of planting small pits (*Kallakuzhi*) are dug for keeping the suckers. Distance between two plants in a furrow will be 2-2.5m (7-8ft). (Plates 5&6).

**Planting:** Suckers are planted in upright position or slanting position in the center of pits with pseudo stem portion remaining above soil level. Soil around the suckers is then pressed to remove /avoid hollow air spaces.

**Manuring:** At the time of planting or after planting 500gm of lime is mixed with fertile surface soil and added to the pits. 10-25kg organic manure is also applied at the time of planting. Some farmers, in addition, apply 250gm of wood ash after planting. N: P<sub>2</sub>O<sub>5</sub>: K<sub>2</sub>O is applied at the rate of 190:115:300 g/plant / year in splits. In furrow planting, after 2 months, the furrow depth will be reduced by digging and filling soil from ridges. The soil from ridges will be spread around the suckers at a distance of 1-1.5 feet away from the base to facilitate better root growth and root functioning. With the commencement of irrigation, the plants are again supplied with 1 kg ash and 20kg cowdung.

**Irrigation:** Nendran has a heavy requirement of moisture and during summer months irrigation is given once in 3 days. Irrigation commences in early January and is continued till the onset of South West monsoon. Good drainage is provided to prevent water logging during rainy periods.

**Weed control:** During early stages, complete control of weeds is obtained by raising cowpea in the interspaces (Plates 7). In hand weeding 4-5 surface diggings are done without disturbing the base of the plant. If green manure crop is grown, weeding operations can be reduced to 1-2 diggings. Small scale farmers rarely follow chemical weed control.

**Desuckering:** Before bunch emergence, all the emerging suckers, as and when they appear above soil, are removed/destroyed. After bunch emergence 1-2 suckers will be maintained for next planting. Unnecessary suckers are destroyed to divert nourishment to the developing bunch.

**Covering of bunches:** Covering of bunches is an important cultural operation and art, mostly done using dry banana leaves collected and stored during the summer season. To protect against strong winds propping is usually done using bamboo poles. First support to the plant is given during March-April and second support is given after the bunch emergence. Bunches are first fully covered 20-25 days after bunching. After 45days, bunch covers will be removed, cleaned and again covered. In periods of heavy rain covering is repeated with fresh lot of dry leaves more than twice. (Plates 8,9,10,11,12,13).

### **Kazhchakula, the gift bunches:**

For production of *Kazhchakula* special care is given to the plant at all stages of its cultivation. Farmers care the plant as if they care their children and those specialized in *kazchakula* cultivation plant only 50 or less suckers every year. In order to increase the beauty and weight of bunches many traditional techniques are followed. Manuring and plant protection is according to strict schedule. Application of excess manure and incorrect proportion will result in fruit cracking and early release of immature bunch.

Covering of bunches, 20-25 days after emergence, is very important in *kazchakula* production. When large scale cultivators take less effort in covering bunches, specialized farmers take more effort to cover the whole bunch intact protecting from sunlight and rain water. In bunches meant for Kazhchakula, *Maani /Kudappan* (male inflorescence) will be retained without removal. *Theeta* (rolls of dry leaves) are kept between hands and fruits to improve orientation of hands and thus to enhance the beauty of the bunch. Some farmers even slightly massage fruits to add luster to the fruits making them more attractive. Bunch beautification will be continued in *kazchakula* market also, to add to the beauty of bunches. Dry banana leaf rolls will be inserted in between hands and fruits on bunches (Plates 18&19) to give better look and thus to enhance market prize. Fruits in such bunches will have the shape of elephant husk, with slight ridges than the ordinary Chengalikodan bunch produced with less care. A well matured fruit will have the colour of a ripened banana (golden yellow). Apart from farmers specialized in *Kazchakula* cultivation, farmers growing Chengalikodan on large scale, keep a portion of their garden for production of *Kazchakula*.

### **Marketing:**

In general the demand for Nendran shoots up in Onam season and to meet the demand merchants directly purchase the bunches from the farmers' fields. Very often deals are made prior to harvest. In recent years Chengalikodan bunches are sold at Rs.55-65/kg during Onam. Farmers selling *Kazchakula* will get Rs.1500-3000/bunch according to the beauty and size of the bunch as a whole whereas retailers sell them for a fancy price of even upto Rs.5000/bunch. The best *Kazhchakula* will have great demand to offer in temples and to be given as special gift to dignitaries/ friends. (Plates 14,15,16,17,20,21,22,23).

### **(J) Uniqueness:**

‘*Chengalikodan*’ Nendran banana, also known as ‘*Chengazhikodan*’ banana, is the most popular and traditional tasty Nendran cultivar of Thrissur district, Kerala, South India. It is believed that the name “*Chengalikodan* Banana” came from the term “*Chengazhikode* Banana” which derived the name from the area of origin of this cultivar viz. Chengazhikode area, in Wadakkancherry block in Thrissur District. Chengazhikode area derived its name from “*Chengazhi Nambiyar*”, the land lords of the area.

Chengalikodan Nendran banana differs from other Nendran cultivars in growth habit, areas of original cultivation, physico-chemical properties of fruit, taste and fruit shape. This tasty variety of Nendran banana is famous for its characteristic taste, bunch shape and fruit colour. Fruits are very tasty with a sugar content of 26-30 percent and shelf life of 7-9 days. Unlike other Nendran bananas, Chengalikodan banana, when boiled, becomes soft and protrudes out through sides.

The fruits are long (21-25cm), with pale yellow colour (Plate 27) for mature fruits. Ripened fruit have golden yellow colour for peel (rind) with red borders/patches known as '*kara*'(meaning border in Malayalam) (Plate 28). Cylindrical shape of fruits with slight ridges is the characteristics fruit feature of Chengalikodan. Unlike other Nendran varieties having pronounced ridges, Chengalikodan banana have slight ridges giving it a ridge-less round look. Absence of persistent bracts on rachis gives beautiful appearance to the bunches.

The shape of bunches and orientation of fruits are also unique. The bunches are cylindrical in shape with fruits curved upward (obliquely, at 45<sup>0</sup> angle upward). The mature fruits have pale yellow colour and on ripening turns to golden yellow colour with red borders/patches which determines its beauty and market price. Such beautiful bunches of Chengalikodan are particularly used as '*Kazhchakula*' (*Kazhcha* means gift; *Kula* means bunch), to be given as offering to deities in temples (Plates 30&31), especially in world famous Guruvayoor Temple, and also as gift bunches to relatives and friends as token of culture/gratitude.

At harvest for bunches expecting premium price, peduncle and male inflorescence rachis will be retained. The slightly curved fruits and long male inflorescence rachis gives a look of elephant tusk and trunk to the bunches. Those bunches which are attractive are selected to be given as '*Kazhchakula*' (gift bunch) to temples and dignitaries.

Chengalikodan banana requires particular traditional method of cultivation and bunch covering techniques with dry banana leaves, to create the attractive characteristic colour and shape for the fruits. Chengalikodan Nendran banana comes in AAB genome. It is mainly cultivated in organic way and duration of crop is 13-14 months.

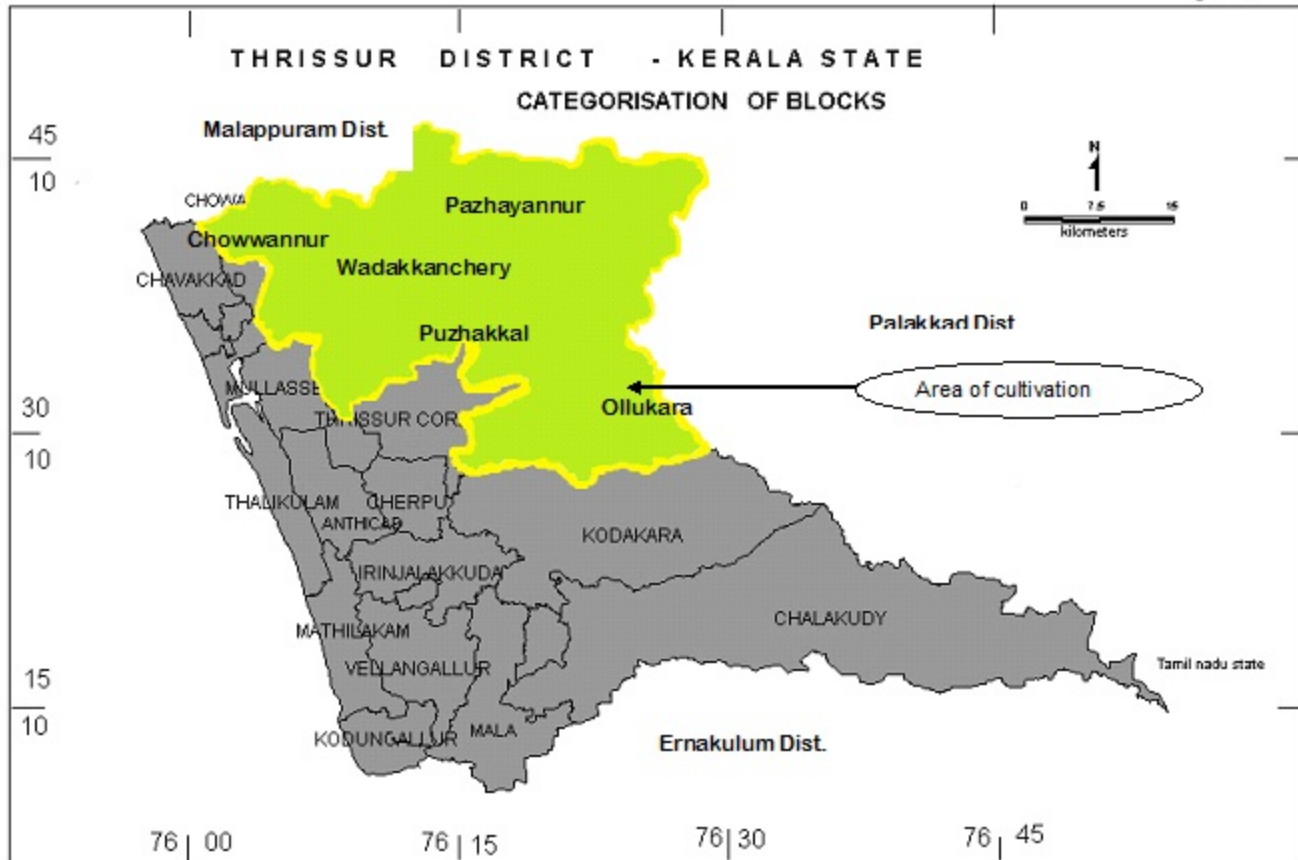
#### **K) Inspection Body:**

To regulate the use of GI in the territory, it is proposed that the Inspection Body will be constituted with the following members

1. Director of Research, Kerala Agricultural University, Thrissur
2. Coordinator, IPR Cell, Kerala Agricultural University, Thrissur
3. Professor & Head, Banana Research Station, Kannara, KAU, Thrissur
4. Principal Agricultural Officer, Thrissur District
5. President, Chengalikodan Banana Growers Association, Erumapetty, Thrissur
6. Secretary, Chengalikodan Banana Growers Association, Erumapetty, Thrissur
7. Agricultural Officer, Krishibhavan, Erumapetty, Thrissur district
8. Three farmer representatives cultivating Chengalikodan Nendran Banana in Thrissur district.



Area of cultivation of Chengalikodan Banana in Thrissur District



Thrissur district lies in the central part of Kerala, in between  $10^{\circ}10'20''$  and  $10^{\circ}46'54''$  North Latitude and  $75^{\circ}57'20''$  and  $76^{\circ}54'23''$  East Longitudes.

**G.I. Authorised User Application No. - 1642 in respect of Kullu Shawl  
Registered GI Application No. - 19**

Application is made by, **M/s. The Radhika Kinnouri Handloom and Handicraft Co-operative Society Limited**. Represented by Shri. Sangant Ram, Village: Reri, Post: Bhunter, Tehsil & District: Kullu, Himachal Pradesh, India, dated July 17, 2013 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kullu Shawl** under Application No - 19 in respect of Textile and Textile goods falling in Class 24 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : M/s. The Radhika Kinnouri Handloom and Handicraft Co-operative Society Limited. Represented by Shri. Sangant Ram
- (B) **Address** : M/s. The Radhika Kinnouri Handloom and Handicraft Co-operative Society Limited Village: Reri, Post: Bhunter, Tehsil & District: Kullu, Himachal Pradesh, India.
- (C) **Date of Authorised User Application** : July 17, 2013
- (D) **Registered Geographical Indication** : **Kullu Shawl**
- (E) **Registered Proprietor** : H.P. Patent Information Centre, State Council for Science, Technology & Environment
- (F) **Address** : H.P. Patent Information Centre, State Council for Science, Technology & Environment, B-34, SDA Complex, Kasumpti, Shimla – 171009.
- (G) **Class** : 24
- (H) **Goods** : **Class 24 - Textile and Textile goods**

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**G.I. Authorised User Application No. - 1755 in respect of Kullu Shawl  
Registered GI Application No. - 19**

Application is made by, **M/s. Deepak Kullu Shawls**, Represented by Shri. Deepak Kumar, Village: Bashing, Post: Babeli, Tehsil & District: Kullu, Himachal Pradesh, India, dated August 29, 2013 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kullu Shawl** under Application No – 19 in respect of Textile and Textile goods falling in Class 24 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : M/s. Deepak Kullu Shawls, Represented by Shri. Deepak Kumar
- (B) **Address** : M/s. Deepak Kullu Shawls,  
Village: Bashing, Post: Babeli, Tehsil & District:  
Kullu, Himachal Pradesh, India
- (C) **Date of Authorised User Application** : August 29, 2013
- (D) **Registered Geographical Indication** : **Kullu Shawl**
- (E) **Registered Proprietor** : H.P. Patent Information Centre, State Council for Science, Technology & Environment
- (F) **Address** : H.P. Patent Information Centre, State Council for Science, Technology & Environment, B-34, SDA Complex, Kasumpti, Shimla – 171009.
- (G) **Class** : 24
- (H) **Goods** : **Class 24** - Textile and Textile goods

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**G.I. Authorised User Application No. - 1804 in respect of Kullu Shawl  
Registered GI Application No. - 19**

Application is made by, **M/s. The Naina Handloom & Handicraft Co-operative Industrial Society Limited**, Represented by Shri. Baldev Singh, Village: Kalehali, Post: Bhunter, Tehsil & District: Kullu, Himachal Pradesh, India, dated September 26, 2013 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kullu Shawl** under Application No - 19 in respect of Textile and Textile goods falling in Class 24 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : M/s. The Naina Handloom & Handicraft  
Co - operative Industrial Society Limited  
Represented by Shri. Baldev Singh
- (B) **Address** : M/s. The Naina Handloom & Handicraft  
Co-operative Industrial Society Limited, Village:  
Kalehali, Post: Bhunter, Tehsil & District: Kullu,  
Himachal Pradesh, India
- (C) **Date of Authorised  
User Application** : September 26, 2013
- (D) **Registered Geographical  
Indication** : **Kullu Shawl**
- (E) **Registered Proprietor** : H.P. Patent Information Centre, State Council  
for Science, Technology & Environment
- (F) **Address** : H.P. Patent Information Centre, State Council  
for Science, Technology & Environment, B-34,  
SDA Complex, Kasumpti, Shimla – 171009.
- (G) **Class** : 24
- (H) **Goods** : **Class 24** - Textile and Textile goods

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**G.I. Authorised User Application No. - 1805 in respect of Kullu Shawl  
Registered GI Application No. - 19**

Application is made by, **M/s. Panchveer Mahila Kalyan Society**, Represented by Smt. Usha Sharma, Village: Chhanalti, Post: Naggar, Tehsil & District: Kullu, Himachal Pradesh, India, dated September 26, 2013 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kullu Shawl** under Application No – 19 in respect of Textile and Textile goods falling in Class 24 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : M/s. Panchveer Mahila Kalyan Society,  
Represented by Smt. Usha Sharma
- (B) **Address** : M/s. Panchveer Mahila Kalyan Society,  
Village: Chhanalti, Post: Naggar, Tehsil & District:  
Kullu, Himachal Pradesh, India
- (C) **Date of Authorised  
User Application** : September 26, 2013
- (D) **Registered Geographical  
Indication** : **Kullu Shawl**
- (E) **Registered Proprietor** : H.P. Patent Information Centre, State Council  
for Science, Technology & Environment
- (F) **Address** : H.P. Patent Information Centre, State Council  
for Science, Technology & Environment, B-34,  
SDA Complex, Kasumpti, Shimla – 171009.
- (G) **Class** : 24
- (H) **Goods** : **Class 24** - Textile and Textile goods

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**G.I. Authorised User Application No. - 1907 in respect of Kullu Shawl  
Registered GI Application No. - 19**


Application is made by, **M/s. Jibhi Shawls Weavers, Represented by Mr. Jagdish Chand**, Village: Bhalagran Post: Tandi, Tehsil: Banjar, District: Kullu, Himachal Pradesh, India, dated March 18, 2014 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kullu Shawl** under Application No - 19 in respect of Textile and Textile goods falling in Class 24 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : M/s. Jibhi Shawls Weavers, Represented By Mr. Jagdish Chand
- (B) **Address** : M/s. Jibhi Shawls Weavers, Represented By Mr. Jagdish Chand,  
Village & Post: Bhalagran & Tandi,  
Tehsil: Banjar, District: Kullu,  
Himachal Pradesh, India
- (C) **Date of Authorised User Application** : March 18, 2014
- (D) **Registered Geographical Indication** : **Kullu Shawl**
- (E) **Registered Proprietor** : H.P. Patent Information Centre, State Council for Science, Technology & Environment
- (F) **Address** : H.P. Patent Information Centre, State Council for Science, Technology & Environment, B-34, SDA Complex, Kasumpti, Shimla – 171009.
- (G) **Class** : 24
- (H) **Goods** : **Class 24 - Textile and Textile goods**

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**G.I. Authorised User Application No. - 1873 in respect of Kashmir Sozani Craft  
Registered GI Application No. - 48**


Application is made by, **Mr. Adil Ahmad Beigh**, Naribal, Lal Bazar, Srinagar - 190023, Jammu & Kashmir, India, dated October 29, 2013 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kashmir Sozani Craft** under Application No - 48 in respect of Sozani embroidery performed on different Apparel fabrics falling in Class 26, is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : Mr. Adil Ahmad Beigh
- (B) **Address** : Mr. Adil Ahmad Beigh,  
Naribal, Lal Bazar, Srinagar - 190023,  
Jammu & Kashmir, India
- (C) **Date of Authorised  
User Application** : October 29, 2013
- (D) **Registered Geographical  
Indication** : **Kashmir Sozani Craft**
- 
- (E) **Registered Proprietor** : TAHAFUZ, Srinagar
- (F) **Address** : TAHAFUZ,  
(Registered Under the J& K Societies Act,  
Registration Number: 5611-S/2007) Nowshera,  
Zadibal, Post Office: Nowshera, District: Srinagar –  
190011, Jammu & Kashmir, India.
- (G) **Class** : 26
- (H) **Goods** : **Class 26** - Sozani embroidery performed on  
different Apparel fabrics

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**G.I. Authorised User Application No. - 1910 in respect of Kani Shawl  
Registered GI Application No. - 48**

Application is made by, **Mr. Syed Musadiq Shah**, Gupth Ganga, Ishber Nishat, Srinagar, Presently, H.No. 11B, IInd Floor, Boulevard Complex, Boulevard Road, Srinagar - 190001, India, dated March 24, 2014 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kashmir Sozani Craft** under Application No - 48 in respect of Sozani embroidery performed on different Apparel fabrics falling in Class 26, is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.


- (A) **Applicant** : Mr. Syed Musadiq Shah
- (B) **Address** : Mr. Syed Musadiq Shah,  
Gupth Ganga, Ishber Nishat, Srinagar, Presently,  
H.No.11B, IInd Floor, Boulevard Complex,  
Boulevard Road, Srinagar - 190001,  
Jammu & Kashmir, India
- (C) **Date of Authorised User Application** : March 24, 2014
- (D) **Registered Geographical Indication** : **Kashmir Sozani Craft**
- 
- (E) **Registered Proprietor** : TAHAFUZ, Srinagar
- (F) **Address** : TAHAFUZ,  
(Registered Under the J& K Societies Act,  
Registration Number: 5611-S/2007) Nowshera,  
Zadibal, Post Office: Nowshera, District: Srinagar –  
190011, Jammu & Kashmir, India.
- (G) **Class** : 26
- (H) **Goods** : **Class 26 - Sozani embroidery performed on  
different Apparel fabrics**

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**G.I. Authorised User Application No. - 1911 in respect of Kani Shawl  
Registered GI Application No. - 51**

Application is made by, **Mr. Syed Musadiq Shah**, Gupth Ganga, Nishat, Srinagar, Presently, H.No. 11B, IInd Floor, Boulevard Complex, Boulevard Road, Srinagar - 190001, India, dated March 24, 2014 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kani Shawl** under Application No - 51 in respect of Shawls falling in Class 25 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : Mr. Syed Musadiq Shah
- (B) **Address** : Mr. Syed Musadiq Shah,  
Gupth Ganga, Nishat, Srinagar, Presently,  
H.No.11B, IInd Floor, Boulevard Complex,  
Boulevard Road, Srinagar - 190001,  
Jammu & Kashmir, India
- (C) **Date of Authorised  
User Application** : March 24, 2014
- (D) **Registered Geographical  
Indication** : **Kani Shawl**
- 
- (E) **Registered Proprietor** : TAHAFUZ, Srinagar
- (F) **Address** : TAHAFUZ,  
(Registered Under the J& K Societies Act,  
Registration Number: 5611-S/2007) Nowshera,  
Zadibal, Post Office: Nowshera, District: Srinagar –  
190011, Jammu & Kashmir, India.
- (G) **Class** : 25
- (H) **Goods** : **Class 25 - Shawls**

**G.I. Authorised User Application No. - 1997 in respect of Muga Silk of Assam  
Registered GI Application No. – 55 & 384**

Application is made by, **M/s. Guldasta**, Represented by Shri. Chandan Keshab, Village: Milanpur, Post: Boko, District: Kamrup - 781123, Assam, India dated July 18, 2014 Registration in Part-B for Authorised User in respect of Registered Geographical Indication Muga Silk of Assam under Application No - 55 & 384 in respect of Raw silk yarns and threads for textiles use, Textile and Textile goods including Mekhela – Chadar, Shawls, dress materials, Sarees, Wall hangings , Clothing's/Garments, Foot wears, Head gear, Made ups, Ties, motifs, fashion wears, Quilt, furnishings & Upholstery, Cocoon falling in Class 23, 24, 25, 27, 31 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : M/s. Guldasta,  
Represented by Shri. Chandan Keshab
- (B) **Address** : M/s. Guldasta,  
Represented by Shri. Chandan Keshab,  
Village: Milanpur, Post: Boko, District: Kamrup -  
781123, Assam, India
- (C) **Date of Authorised  
User Application** : July 18, 2014
- (D) **Registered Geographical  
Indication** : **Muga Silk of Assam**



- (E) **Registered Proprietor** : Patent Information Centre
- (F) **Address** : Patent Information Centre, ASTEC, Assam  
Science Technology and Environment Council  
(ASTEC), 3<sup>rd</sup> Floor, City Co-operative Building,  
U.N.B. Road, Silpukhuri, Guwahati – 781 003,  
Assam, India.
- (G) **Class** : 23, 24, 25, 27, 31
- (H) **Goods** : Class 23 – Raw silk yarns and threads for textile  
Use;  
Class 24 – Textile and Textile goods including  
Mekhela - Chadar, Shawls, dress materials, sarees,  
Wall hanging;  
Class 25 – Clothing's/Garments, Foot wears, Head  
gear, made ups, Ties, Motifs, fashion wears. Class 27  
– Quit, furnishings & upholstery.  
Class 31 – Cocoon

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**G.I. Authorised User Application No. - 1999 in respect of Muga Silk of Assam  
Registered GI Application No. – 55 & 384**

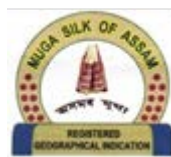
Application is made by, **M/s. Baishya Silk Factory**, Represented by Shri. Jitendra Baishya, Village: Hospital Road, Post: Sualkuchi, District: Kamrup - 781103, Assam, India dated August 05, 2014 Registration in Part-B for Authorised User in respect of Registered Geographical Indication Muga Silk of Assam under Application No - 55 & 384 in respect of Raw silk yarns and threads for textiles use, Textile and Textile goods including Mekhela – Chadar, Shawls, dress materials, Sarees, Wall hangings , Clothing's/Garments, Foot wears, Head gear, Made ups, Ties, motifs, fashion wears, Quilt, furnishings & Upholstery, Cocoon falling in Class 23, 24, 25, 27, 31 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

**(A) Applicant** : M/s. Baishya Silk Factory, Represented by Shri. Jitendra Baishya,

**(B) Address** : M/s. Baishya Silk Factory, Represented by Shri. Jitendra Baishya,  
Village: Hospital Road, Post: Sualkuchi,  
District: Kamrup - 781123, Assam, India

**(C) Date of Authorised User Application** : August 05, 2014

**(D) Registered Geographical Indication** : **Muga Silk of Assam**



**(E) Registered Proprietor** : Patent Information Centre

**(F) Address** : Patent Information Centre, ASTEC, Assam Science Technology and Environment Council (ASTEC), 3<sup>rd</sup> Floor, City Co-operative Building, U.N.B. Road, Silpukhuri, Guwahati – 781 003, Assam, India.

**(G) Class** : 23, 24, 25, 27, 31

**(H) Goods** : Class 23 – Raw silk yarns and threads for textile Use;  
Class 24 – Textile and Textile goods including Mekhela - Chadar, Shawls, dress materials, sarees, Wall hanging;  
Class 25 – Clothing's/Garments, Foot wears, Head gear, made ups, Ties, Motifs, fashion wears. Class 27 – Quilt, furnishings & upholstery.  
Class 31 – Cocoon

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**G.I. Authorised User Application No. - 2000 in respect of Muga Silk of Assam  
Registered GI Application No. – 55 & 384**

Application is made by, **M/s. Harmohan Silk Factory**, Represented by Shri. Hari Lal Kalita, Village: Kalitapara, Post: Sualkuchi, District: Kamrup - 781103, Assam, India dated August 05, 2014 Registration in Part-B for Authorised User in respect of Registered Geographical Indication Muga Silk of Assam under Application No - 55 & 384 in respect of Raw silk yarns and threads for textiles use, Textile and Textile goods including Mekhela – Chadar, Shawls, dress materials, Sarees, Wall hangings , Clothing's/Garments, Foot wears, Head gear, Made ups, Ties, motifs, fashion wears, Quilt, furnishings & Upholstery, Cocoon falling in Class 23, 24, 25, 27, 31 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

(A) **Applicant** : M/s. Harmohan Silk Factory, Represented by Shri. Hari Lal Kalita

(B) **Address** : M/s. Harmohan Silk Factory, Represented by Shri. Hari Lal Kalita,  
Village: Kalitapara, Post: Sualkuchi,  
District: Kamrup - 781103, Assam, India

(C) **Date of Authorised User Application** : August 05, 2014

(D) **Registered Geographical Indication** : **Muga Silk of Assam**



(E) **Registered Proprietor** : Patent Information Centre

(F) **Address** : Patent Information Centre, ASTEC, Assam  
Science Technology and Environment Council  
(ASTEC), 3<sup>rd</sup> Floor, City Co-operative Building,  
U.N.B. Road, Silpukhuri, Guwahati – 781 003,  
Assam, India.

(G) **Class** : 23, 24, 25, 27, 31

(H) **Goods** : Class 23 – Raw silk yarns and threads for textile Use;  
Class 24 – Textile and Textile goods including Mekhela - Chadar, Shawls, dress materials, sarees, Wall hanging;  
Class 25 – Clothing's/Garments, Foot wears, Head gear, made ups, Ties, Motifs, fashion wears. Class 27 – Quilt, furnishings & upholstery.  
Class 31 – Cocoon

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**G.I. Authorised User Application No. - 2001 in respect of Muga Silk of Assam  
Registered GI Application No. - 55**

Application is made by, **M/s. Suchila Silk Factory**, Represented by Shri. Bipin Das, Na: Keotpara, Post: Sualkuchi, District: Kamrup - 781103, Assam, India dated August 18, 2014 Registration in Part-B for Authorised User in respect of Registered Geographical Indication Muga Silk of Assam under Application No - 55 & 384 in respect of Raw silk yarns and threads for textiles use, Textile and Textile goods including Mekhela – Chadar, Shawls, dress materials, Sarees, Wall hangings , Clothing's/Garments, Foot wears, Head gear, Made ups, Ties, motifs, fashion wears, Quilt, furnishings & Upholstery, Cocoon falling in Class 23, 24, 25, 27, 31 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

**(A) Applicant** : M/s. Suchila Silk Factory, Represented by Shri. Bipin Das

**(B) Address** : M/s. Suchila Silk Factory, Represented by Shri. Bipin Das,  
Na: Keotpara, Post: Sualkuchi,  
District: Kamrup - 781103, Assam, India

**(C) Date of Authorised User Application** : August 18, 2014

**(D) Registered Geographical Indication** : **Muga Silk of Assam**



**(E) Registered Proprietor** : Patent Information Centre

**(F) Address** : Patent Information Centre, ASTEC, Assam Science Technology and Environment Council (ASTEC), 3<sup>rd</sup> Floor, City Co-operative Building, U.N.B. Road, Silpukhuri, Guwahati – 781 003, Assam, India.

**(G) Class** : 23, 24, 25, 27, 31

**(H) Goods** : Class 23 – Raw silk yarns and threads for textile Use;  
Class 24 – Textile and Textile goods including Mekhela - Chadar, Shawls, dress materials, sarees, Wall hanging;  
Class 25 – Clothing's/Garments, Foot wears, Head gear, made ups, Ties, Motifs, fashion wears. Class 27 – Quilt, furnishings & upholstery.  
Class 31 – Cocoon

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**G.I. Authorised User Application No. - 318 in respect of Kinnauri Shawl  
Registered GI Application No. - 149**

Application is made by **M/s. Kailash Handloom, Represented by Shri. Bhagwan Singh**, Village: Homte, Post: Huri, Tehsil: Nichar, District: Kinnaur, Himachal Pradesh, India, dated November 08, 2011 for Registration in Part-B for Authorised User in respect of Registered Geographical Indication **Kinnauri Shawl** under Application No - 149 in respect of Textile and Textile goods falling in Class 24 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : M/s. Kailash Handloom,  
Represented by Shri. Bhagwan Singh
- (B) **Address** : M/s. Kailash Handloom,  
Represented by Shri. Bhagwan Singh,  
Village: Homte, Post: Huri, Tehsil: Nichar,  
District: Kinnaur, Himachal Pradesh, India
- (C) **Date of Authorised  
User Application** : November 08, 2011
- (D) **Registered Geographical  
Indication** : **Kinnauri Shawl**
- (E) **Registered Proprietor** : H.P. Patent Information Centre
- (F) **Address** : H.P. Patent Information Centre, State Council  
for Science, Technology & Environment, B-34,  
SDA Complex, Kasumpti, Shimla - 171009.
- (G) **Class** : 24
- (H) **Goods** : **Class 24** - Textile and Textile goods

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**G.I. Authorised User Application No. - 2002 in respect of Surat Zari Craft  
Registered GI Application No. - 171**

Application is made by, **M/s. M Kantilal & Bros**, Represented by Shri. Jignesh Kantilal Jariwala, 9/82, Wadifaliya, Ghatni Street, Surat – 395003, India dated August 18, 2014 Registration in Part-B for Authorised User in respect of Registered Geographical Indication Surat under Application No - 171 in respect of Yarns and Threads for textile use falling in Class 23 is hereby advertised as accepted under sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- (A) **Applicant** : M/s. M Kantilal & Bros,  
Represented by Shri. Jignesh Kantilal Jariwala
- (B) **Address** : M/s. M Kantilal & Bros,  
Represented by Shri. Jignesh Kantilal Jariwala, No:  
9/82, Wadifaliya, Ghatni Street, Surat – 395003,  
India
- (C) **Date of Authorised  
User Application** : August 18, 2014
- (D) **Registered Geographical  
Indication** : **Surat Zari Craft**



- (E) **Registered Proprietor** : 1) The Surat Jari Manufacturers Association  
2) The Surat Jari Goods Production Co-op.  
Society Limited.  
3) Southern Gujarat Chamber of Commerce &  
Industry  
4) Surat Varanasi Vepari Mandal  
5) Surat – Andhra – Karnataka Jari Association
- (F) **Address** : 1) The Surat Jari Manufacturers Association,  
Safe Deposit Chambers, Chautapool, Surat –  
395003, Gujarat, India.  
2) The Surat Jari Goods Production Co-op.  
Society Limited, Whitehouse Wadifalia,  
Khandwala Sheri, Surat – 395 003, India  
3) Southern Gujarat Chamber of Commerce &  
Industry, Samruddi Building, Near  
Makkaipool Nanpura, Surat – 395 001, India  
4) Surat Varanasi Jari Vepari Mandal, 9/418,  
Wadifalia Store Sheri, Surat – 395 003, India  
5) Surat – Andhra – Karnataka Jari  
Association, 3/4141, Nanapura Ladsheri,  
Surat – 395 003, India

**(G) Class** : 23

**(H)** : **Class 23 - Yarns and Threads for textile use**

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## **CORRIGENDA / NOTIFICATIONS**

The GI Authorised User Application Number 2062, filed by Shri. Panha Janya Saha with respect to Registered Geographical Indication Muga Silk of Assam under Application No. 55 & 384 published in the Geographical Indications Journal No. 59 dated November 13, 2014 is hereby corrected to be read as Shri. Panha Janya Saha, Village: Dhekenabari, Sub Division - Chayagaon, District: Kamrup - 781124, Assam, India.

## General Information

### What is a Geographical Indication?

- It is an indication,
- It is used to identify agricultural, natural, or manufactured goods originating in the said area,
- It originates from a definite territory in India,
- It should have a special quality or characteristics unique to the geographical indication.

### Examples of possible Geographical Indications in India:

Some of the examples of Geographical Indications in India include Basmati Rice, Darjeeling Tea, Kancheepuram silk saree, Alphonso Mango, Nagpur Orange, Kolhapuri Chappal, Bikaneri Bhujia etc.

### What are the benefits of registration of Geographical Indications?

- It confers legal protection to Geographical Indications in India,
- It prevents unauthorized use of a registered Geographical Indication by others.
- It boosts exports of Indian Geographical indications by providing legal Protection.
- It promotes economic Prosperity of Producers.
- It enables seeking legal protection in other WTO member countries.

### Who can apply for the registration of a Geographical Indication?

Any association of persons, producers, organization or authority established by or under the law can apply.

The applicant must represent the interest of the producers.

The application should be in writing in the prescribed form.

The application should be addressed to the Registrar of Geographical Indications along with prescribed fee.

### Who is the Registered Proprietor of a Geographical Indication?

Any association of persons, producers, organisation or authority established by or under the law can be a registered proprietor. Their name should be entered in the Register of Geographical Indications as registered proprietor for the Geographical Indication applied for.

### Who is an authorized user?

A producer of goods can apply for registration as an authorized user, with respect to a registered Geographical Indication. He should apply in writing in the prescribed form along with prescribed fee.

### Who is a producer in relation to a Geographical Indication?

A producer is a person dealing with three categories of goods

- Agricultural Goods including the production, processing, trading or dealing.
- Natural Goods including exploiting, trading or dealing.
- Handicrafts or industrial goods including making, manufacturing, trading or dealing.

### Is registration of a Geographical Indication compulsory?

While registration of Geographical indication is not compulsory, it offers better legal protection for action for infringement.

**What are the advantages of registering?**

- Registration affords better legal protection to facilitate an action for infringement.
- The registered proprietor and authorized users can initiate infringement actions.
- The authorized users can exercise right to use the Geographical indication.

**Who can use the registered Geographical Indication?**

Only an authorized user has the exclusive rights to use the Geographical indication in relation to goods in respect of which it is registered.

**How long is the registration of Geographical Indication valid? Can it be renewed?**

The registration of a Geographical Indication is for a period of ten years.

Yes, renewal is possible for further periods of 10 years each.

If a registered Geographical Indication is not renewed, it is liable to be removed from the register.

**When a Registered Geographical Indication is said to be infringed?**

- When unauthorized use indicates or suggests that such goods originate in a geographical area other than the true place of origin of such goods in a manner which misleads the public as to their geographical origins.
- When use of Geographical Indication results in unfair competition including passing off in respect of registered Geographical indication.
- When the use of another Geographical Indication results in a false representation to the public that goods originate in a territory in respect of which a Geographical Indication relates.

**Who can initiate an infringement action?**

The registered proprietor or authorized users of a registered Geographical indication can initiate an infringement action.

**Can a registered Geographical Indication be assigned, transmitted etc?**

No, A Geographical Indication is a public property belonging to the producers of the concerned goods. It shall not be the subject matter of assignment, transmission, licensing, pledge, mortgage or such other agreement. However, when an authorized user dies, his right devolves on his successor in title.

**Can a registered Geographical Indication or authorized user be removed from the register?**

Yes, The Appellate Board or the Registrar of Geographical Indication has the power to remove the Geographical Indication or authorized user from the register. The aggrieved person can file an appeal within three months from the date of communication of the order.

**How a Geographical Indication differs from a trade mark?**

A trade mark is a sign which is used in the course of trade and it distinguishes goods or services of one enterprise from those of other enterprises. Whereas a Geographical Indication is used to identify goods having special characteristics originating from a definite geographical territory.

## THE REGISTRATION PROCESS

In December 1999, Parliament passed the Geographical Indications of Goods (Registration and Protection) Act 1999. This Act seeks to provide for the registration and protection of Geographical Indications relating to goods in India. This Act is administered by the Controller General of Patents, Designs and Trade Marks, who is the Registrar of Geographical Indications. The Geographical Indications Registry is located at Chennai.

The Registrar of Geographical Indication is divided into two parts. Part 'A' consists of particulars relating to registered Geographical indications and Part 'B' consists of particulars of the registered authorized users.

The registration process is similar to both for registration of geographical indication and an authorized user which is illustrated below:

