

उत्तर-पूर्वीय क्षेत्रीय कृषि बिपणन निगम लिमिटेड NORTH EASTERN REGIONAL AGRICULTURAL MARKETING CORPORATION LTD (A GOVERNMENT OF INDIA ENTERPRISE) 9, RAJBARI PATH, G. S. ROAD, GANESHGURI, GUWAHATI – 781 005, ASSAM, INDIA Pbx: +91 361 2341427; Tele-fax: +91 361 2341428 E-mail: edfmd.neramac@gmail.com ; Website: www.neramac.com

> 214/Adran/191/10/807 August 27, 2013

Shri Prashanth Kumar S. Bhairappanavar Examiner of Trade Marks & GI Geographical Indications Registry Office Intellectual Property Office Building, G.S.T Road, Guindy, Chennai – 600 032

Sub: Application for GI registration for Kachai Lemon under the Geographical Indications of Goods (Registration and Protection) Rule 2002.

Dear Sir,

Greetings from NERAMAC!

We are forwarding you application of GI registration for the Kachai Lemon grown in Manipur.

This include following list of items:

- 1. Application 3 copies
- 2. Statement of Case 3 copies
- 3. Maps 3 copies
- 4. Symbolic representation 5 copies
- 5. Affidavit 1
- 6. MoA and By Laws of NERAMAC 1 copy
- 7. DD of INR 5000 for registration fees
- 8. Test reports

Looking forward for your kind consideration.

Thanking You,

GOVT. OF INDIA Geographical Indications Registry 2013 DY No ... CHENNAI

Yours faithfully,

Executive Director

Encl: As stated above

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उत्तर-पूर्वीय क्षेत्रीय कृषि बिपणन निगम लिमिटेड NORTH EASTERN REGIONAL AGRICULTURAL MARKETING CORPORATION LTD (A GOVERNMENT OF INDIA ENTERPRISE) 9, RAJBARI PATH, G. S. ROAD, GANESHGURI, GUWAHATI – 781 005, ASSAM, INDIA Pbx: +91 361 2341427; Tele-fax: +91 361 2341428 E-mail: <u>es.neramac@gmail.com</u>; Website: <u>www.neramac.com</u>

> 214/Admn/191/10/1139 December 3, 2013

Shri Chinnaraja G. Naidu

Assistant Registrar of Geographical Indications HO, Geographical Indications Registry Office Intellectual Property Office Building, G.S.T Road, Guindy, Chennai – 600 032 Tel: 044 22502091, 22502090, E-mail: <u>gir-ipo@nic.in</u>

Sub: Fresh Demand Draft

Ref: Your letter No. GIR/ADMN/2013-14/501 dated 29th October, 2013

Dear Sir,

This is in continuation to the letter no. cited above wherein you have described the Demand Drafts (DD No "024160" & DD No "024163") as Instrument is outdated which were sent towards payment of statutory fees for GI Application for "Khasi Manadarin" & "Kachai Lemon". (DD re. 200854)

In this regard, we are attaching herewith two fresh Demand Drafts (DD No "000853" & DD No "000854") for your needful please.

Thanking You,

| GOVT. OF INDIA Geographical Indications Registry |
|---|
| 1 0 DEC 2013 |
| CHENNAI. |

Yours faithfully

PA to Managing Director





Geographical indications Registry

Intellectual Property Building, G.S.T. Road, Guindy, Chennai - 600 032 Phone: 044-22502091 & 92 Fax : 044-22502090 E-mail: gir-ipo@nic.in



Receipt

CBR NO :2332

TO

Date : 10-12-2013

Generated by :BABU

NORTH EASTERN REGIONAL AGRICULTURAL MARKETING CORPORATION LTD (NERAMAC), 9, RAJBARI PATH, GANESHGURI, G.S. ROAD, GUWAHATI, ASSAM, 781 005. INDIA

C B R Details :

| Applicat | ion No | Form No | Class | No of Class | Name of GI | Goods Type | Amount Calculated |
|----------|--------|---------|-------|-------------|--------------|-------------------|-------------------|
| 466 | 5 | GI-1A | 31 | 1 | Kachai Lemon | Agriculture | 5000 |

Payment Details :

| Payment Mode | Cheque/DD/PO NO | Bank Name | Cheque/DD/PO Date | Amount Calculated | Amount Paid |
|-----------------|--------------------|--------------|----------------------|----------------------|----------------|
| | | HDFC | | | |
| DD | 000854 | Bank | 18-11-2013 | 5000 | 5000 |

Total Calculated Amount in words : Rupees Five Thousand only Total Received Amount in words : Rupees Five Thousand only

*** This is electronically generated receipt hence no signature required ***

-___

THE GEOGRAPHICAL INDICATIONS OF GOODS (REGISTRATION AND PROTECTION) ACT, 1999

| Received | Rs. 5000 in cash/ |
|-------------|---------------------|
| Cheque/D | D/MO on 10.12 .2013 |
| vide entry | no. 2332 in the |
| register of | valuables of |
| Cashier | 10/12/13 |
| | |

(To be filled in triplicate along with the Statement of Case accompanied by five additional representation of the Geographical indication)

One representation to be fixed within the space and five others to be send separately

 Application is hereby made by North Eastern Regional Agricultural Marketing Corporation Ltd (NERAMAC) with its Registered Office at 9 Rajbari Path, Ganeshguri, G S Road, Guwahati – 781 005 for the registration in Part A of the Register of the accompanying geographical indication furnishing the following particulars :-

:

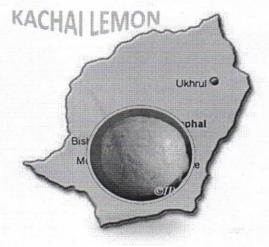
:

- (A) Name of the applicant
- (B) Address
- (C) List of authority
- (D) Name of the geographical indication [and particulars] :



9 Rajbari Path, Ganeshguri, G S Road, Guwahati – 781 005

Under the administrative control of the Ministry of Development of North Eastern Region (DoNER), Government of India, New Delhi



(E) Type of Goods

Class - 31 - fruits (Lemon)

(F) Specification :

The morphological and physico-chemical characteristics of Kachai Lemon (analyzed by ICAR Research Complex for NEH Region, Manipur Centre) are as follows.

| Parameters | Range |
|---------------------------------------|----------------------|
| Plant height | 3-4 m |
| Average plant age | 30 year |
| No. of fruits/plant (age 10-20 years) | 1,000 - 3,000 |
| Yield potential | 70-80 ton/ha |
| Fruit weight | 70-100 g |
| Polar diameter | 52-55 mm |
| Equatorial diameter | 56-59 mm |
| Peel thickness | 1.9 – 3 mm |
| Juice content per fruit | 30-60 ml |
| Juice(%) by weight | 37-57% |
| Segments/Fruit | 9/10 |
| Seeds/Fruit | 15 - 18 |
| TSS | 6.8-9.0% |
| Ph | 2.87- |
| Acidity | 4.1-5.8% |
| Ascorbic acid | 46-51mg/100 ml juice |
| Fruit shape | Spheroid |
| Fruit colour | Yellow |

(Certified by Scientists of Indian Council of Agricultural Research Center, Northern Regional Centre for 'Citrus', Nagpur, Ref. Indian Horticultural Vol. 51, No. 5, Page: 33 – 34)

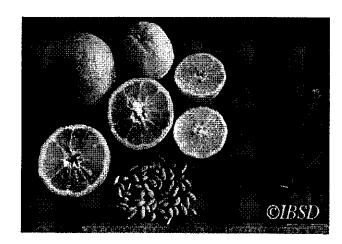
(G) Name of the Geographical Indication: (and particulars)



KACHAI LEMON

(H) Description of Good

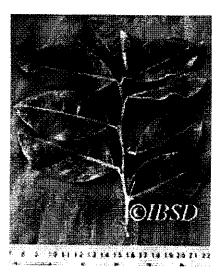
Phylum: Tracheophyta Class: Spermatopsida Order: Sapindales Family: Aurantioideae Tribe: Aurantieae Genus: Citrus Species: jambhiri Local name: Kachai lemon Common name: Rough lemon Habitat: Hill



Morphology

A. Leaf:

| Division | simple |
|-------------------------------------|----------------|
| Lamina Shape | Elliptic |
| Lamina Length | 8.99 cm |
| Lamina Width | 4.54 cm |
| Lamina Attachment | brevipetiolate |
| Margin | Sinuate |
| Apex | Acute |
| Petiole Length | 1.47 cm |
| Petiole Wing | Present |
| Petiole Wing Wide | Narrow |
| Petiole Wing Shape | Obdeltate |
| Junction Between Petiole and Lamina | Articulate |

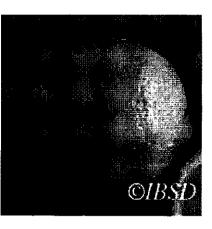


B. Fruit:

| Weight | 107.42 gm | |
|--------------|------------|--|
| Diameter | 8.58 cm | |
| Length | 5.82 cm | |
| Shape | Spheroid | |
| Base Shape | Convex | |
| Apex Shape | Rounded | |
| Skin Texture | Rough | |
| Segment | 10.33 nos. | |

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| Segment Shape Uniformity | Present |
|--------------------------|-----------------------|
| Rind Colour | White |
| Rind Thickness | 0.48 cm |
| Pulp Color | Yellow |
| Pulp Color Intensity | light to medium |
| Axis | Hollow |
| Axis Shape | circular to irregular |
| Axis Diameter | 2.7 cm |
| Oil Density (sq.cm) | 58.23 |
| Oil Gland Nature | Conspicuous |
| Areola | Present |
| Areola Diameter | 3.78 cm |
| Style Scar | Absent |



C. Seed:

| Shape | Cuneiform |
|------------------|-----------|
| Surface | Smooth |
| Color | White |
| Length | 1.22 cm |
| Width | 0.51 cm |
| Cotyledon Colour | White |
| Average Seeds | 14-23 |

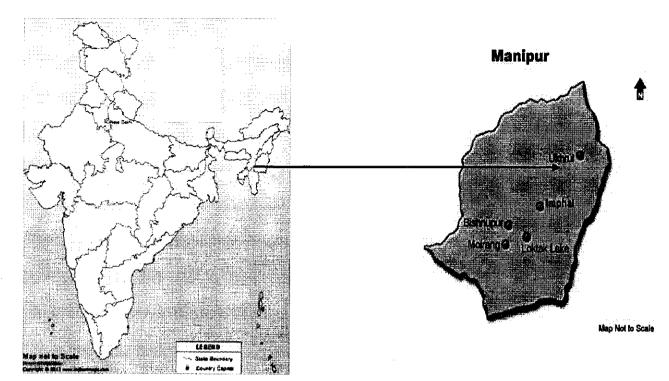
(I) Geographical area of Production and Map:

The Ukhrul district produces 5737 MT lemon in 840 ha annually. Kachai Villge is the centre of production for kachai lemon. Presently seven new neighbouring villages have also started cultivating kachai lemon in their orchard but on a small scale.

It is marketed only in Manipur through the department of horticulture.

[Source: Department of Horticulture and soil conservation, Government of Manipur]

Map of Kachai Lemon is cultivated in an area in India



Manipur Kachai Lemon production area lies between 23.83 degree North and 25.68 degree North latitude and between 93.03 degree East and 94.78 degree East longitude

(J) Proof of origin: (Historical records):

Kachai lemon (*Citrus jambbiri* Lush.) locally called Champra is grown extensively in the surrounding areas of Kachai village in Ukhrul District of Manipur. The district is blessed with all important prerequisites for the successful cultivation of Kachai Lemon. Except Ukhrul, farmers have started growing Kachai Lemon in parts of Chandel and Churachandpur district.⁶

The fruit was first introduced by Late **"S. Paisho"** during **1944-45** and later on its cultivation spread to other neighboring villages. During early 70s, **"Shri S. Bhowmik"**, Advisor of Agriculture, Govt. of Manipur named it as Kachai Lemon.⁶

Tracing the origin of Kachai lemon, late S Paisho brought and planted three lemon seeds at Theikhor and another two at Shimphungrim of Kachai in 1944-45. Of these, two grew up at Theikhor and one at Shimphungrim and these plants became fully matured in 1950. By and by, the same variety of lemon spread to every household of Kachai.⁶

[Source: Department of Horticulture and soil conservation, Government of Manipur]

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1.5. Fertilizer and Nutrient Management

| Age of plantation | FYM (kg/plant) | UREA (g/plant) | SSP (g/plant) | MOP (g/plant) |
|----------------------|-------------------|-------------------|------------------|------------------|
| 1 st Year | 5 | 200 | 500 | 200 |
| 2 nd Year | 10 | 400 | 700 | 400 |
| 3 rd Year | 15 | 600 | 1000 | 500 |
| 4 th Year | 20 | 800 | 1200 | 600 |
| 5 th year | 25 | 850 | 1400 | 600 |
| 6 th Year | 30 | 1000 | 1500 | 700 |
| 7 th Year | 30 | 1100 | 1600 | 800 |
| 8 th Year | 30 | 1100 | 1600 | 800 |

Apply fertilizers in 3 equal split doses coinciding with the flush period. The first dose may be applied in the month of March-April and subsequent split doses may be given in June-July and Sept-Oct. fertilizers should be applied around the skirt belt of the soil under the plant. Application of Dolomite lime @ 3 kg/plant/year within the skirt belt of tree or below the perimeter of tree is recommended to improve the soil pH.¹

Micro-nutrients

Copper sulphate 100 g and Zinc sulphate 200 g per bearing tree may be applied preferably in the month of April after fruit set under the presence of sufficient soil moisture.¹

1.6. Intercropping

Leguminous crops likes pea, cow pea, beans, rice beans can safely be grown in lemon orchards. Papaya and pineapple can be grown in between the rows to get additional income during pre bearing stage.¹

1.7. Care of Plants

- Remove new shoots arising from stem regularly up to 30-45 cm from the ground
- Prune dried and undesirable shoots regularly
- Avoid deep digging around the young bearing plants
- Keep the basin free from the weeds and mulch with dry grasses during dry months.
- Paste the trunk with Bordeaux paste during winter up to 60 cm from the ground.



Rejuvination Programme Conducted by ICAR at Kachai

1.8. Insect Pests and Diseases

Diseases and Insect Pests

Kachai Lemon is attacked by different disease and pests like tristeza, greening, canker, anthracnose or die back, foot and root rot, powdery mildew, leaf miner, lemon butterfly, trunk borer, bark eating caterpillar, citrus psylla and scale insect etc. To prevent these diseases and pests, the growers have to take following measures.¹

- Use of disease free planting materials (budded or grafted) from certified sources. Tissue culture (Shoot tip grafted or micro-budded) plantlets are most desirable.
- Remove lichens and mosses regularly.
- Avoid water stagnation around the tree trunk.¹

| Pest/diseases | Protection measures | | |
|---|---|--|--|
| Canker | 1. Spray Streptocyclin (50 g/500 litres of water) 3 times i.e, Oct., Dec. and February. Add 25 g copper sulphate in the mixture give best result. | | |
| Leaf minor | Spray Fenvelerate or Cypermethrin (2ml/litre) during flush period and repeat at 10-15 days interval Spray Neem seed cake (2%) is also effective. | | |
| Lemon butterfly | 1. Hand picking of larvae and kill them 2. Spray Phosphamidon (0.5 ml/litre) or Malathion (1ml/litre) | | |
| Trunkborer/Bark1. Prune and burn affected shootseating caterpillar2. Inject petrol in holes and plug with mud or cotton web | | | |
| Psylla & aphids | 1. Spray Phosphamidon (0.5 ml/litre) during new flush period or Quinalphos 1ml/litre of water at 15 days interval. | | |
| Gummosis or foot rot | Avoid water stagnation Scraped affected portion and apply Ridomil @ 2.75 g/litre of water or Bordeaux mixture 2 10% may be pasted. | | |
| Root rot | 1. Remove the soil around the trunk and drench with Alliette @2.5 g/litre | | |
| Powdery mildew | 1. Spray Sulfex (2g/litre) during flush period | | |
| Anthracnose /Dieback | 1. Apply Bordeaux mixture (2:2:250) or 50% Copper oxychloride (0.3%) during March, July & Sept. help in reducing the disease. | | |

1.9. Conservation Technology

Kachai Lemon can grow successfully in all areas which are free from frost, hailstorm and extreme fluctuation of temperature in winter. They are adapted to sub-mountainous tracts up to 700-1200 m above mean sea level and temperature at about 10-35°C. Deep well sandy loam soil with sub soil free from any hard pan, low water table are suitable for its cultivation.²

- Place the jute-covered basket on top of the stones in the tray. basket loose-fitting lid
- Fill the tray with water. Make sure that the loose ends of the jute cloth dip into the water.
- Place the fruits in the basket.
- Cover the basket with the loose-fitting woven lid and cover the lid with a loose fitting, wet jute cloth.
- The water will evaporate from the cloth, keeping the contents of the basket cool and fresh. Dampen the jute material-top and sides periodically with clean water.
- The water will evaporate from the cloth, keeping the contents of the basket cool and fresh. Dampen the jute material-top and sides periodically with clean water.²

Packaging

The packaging materials should be environment friendly, cost effective, easily printable and stable during the entire distribution chain. It should have sufficient strength in compression and against impact and vibrations. Consumer appeal is another important aspect of packaging. The ideal packaging materials for Kachai Lemon are –

- Wood boxes, bins, trays, barrels, pallets
- Paper and card board liners, boxes, trays
- Plastic Rigid crates, pallets, trays
- Flexible films (single & multi layered)
- Polystyrene boxes / trays.
- Combined materials CFB and plastic.²

(L) Uniqueness :

Kachai Lemon is unique in its characteristics. The bearing plants of Kachai Lemon look like flowering trees during harvesting time. The fruit is a rich source of Ascorbic Acid, containing 46-51 mg/100 ml juice. The juice content is 30-60 ml per fruit. Given below are the distinguishing features of kachai lemon:⁷

- Kachai lemons contain 46 to 51 percent of Ascorbic Acid (Vitamin C) per milligram.
- On the average, one fully ripe Kachai lemon weighs up to 101 gm with a circumference in the range about 66-69 mm.
- Each lemon plant produces at least four tins of lemon in a season.
- Very Juicy
- Flavor of Kachai lemon is different from other Lemon varieties.
- Sweet aroma of "Lemon"
- Rich acerbic acid content up to 70 to 80 percent. Other Lemon varieties have only 20 to 30 percent of acerbic acid
- The Kachai Lemon juice- unique and delicious as nature intended, more refreshing, more healthy, naturally grown and chemical free.
- Taste Blended (Sweet + Sour)

- The uniqueness of the fruit lies in its bearing habit. Even if it gets ripened it doesn't fall from the tree. Fruit will become small and turns into green from yellow, and then it grows again in the next fruiting season.
- Some inner physiological changes takes place inside which turns its color from yellow to green but it never falls from its "*Mother Plant*".

Uniqueness:

- The bearing plants of Kachai Lemon look like flowering trees during harvesting time, simply beautiful, colorful and attractive to everyone.
- The main fruiting time starts from November and continues till April. Fruits are available throughout the year. It is interesting that the unplucked fruits remain on the tree and the fruits change its colour in next fruiting season (green to yellow).
- The uniqueness and speciality of Kachai Lemon is that it is a rich source of Ascorbic Acid, containing 45-51 mg/100ml juice. The juice content is 36-56 ml per fruit.⁷

(M) Inspection body :

NERAMAC is taking steps to set – up a suitable and efficient inspection body to ensure the quality standards of the product. The organisation has an established branch office at Gangtok, Sikkim which is already working in close association with the farmers of the state helping them to market their produce to the exporters and traders from Guwahati and other parts of the country. As per the requirements of the inspection body a well-organized and appropriate team will be appointed.

Along with the Statement of Case in Class **31** in respect of Fruits (Kachai Lemon) in the name(s) of North Eastern Regional Agricultural Marketing Corporation Ltd (NERAMAC) whose address is **9** Rajbari Path, Ganeshguri, G S Road, Guwahati – 781 005 Who claims to represent the interest of the producers of the said goods to which the geographical indication relates and which is in continuous use since in respect of the said goods.

 All communications relating to this application may be sent to the following address in India. North Eastern Regional Agricultural Marketing Corporation Ltd (NERAMAC), 9 Rajbari Path, Ganeshguri, G S Road, Guwahati – 781 005

SIGNATURE

EXECUTIVE DIRECTIOR NORTH EASTERN REGIONAL AGRICULTURAL MARKETING CORPORATION LTD (NERAMAC) 9 RAJBARI PATH, GANESHGURI, G S ROAD, GUWAHATI – 781 005

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