GI APPLICATION No.
435
NERAMAC

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/Admn/191/10/571
August 5, 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 **Karbi Anglong Ginger** 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 commodity **Karbi Anglong Ginger** grown in Assam.

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
29 AUG 2013
DY No. 516
CHENNAI.

Yours faithfully,

S. Bhattacharjee
Executive Director

Encl: As stated above

सत्यमेव जयते

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

INTELLECTUAL PROPERTY INDIA

Receipt

CBR NO :2185 Date : 29-08-2013

TO Generated by :BABU

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

C B R Details :

Application No	Form No	Class	No of Class	Name of GI	Goods Type	Amount Calculated
435	GI-1A	30	1	Assam Karbi Anglong Ginger	Agriculture	5000

Payment Details :

Payment Mode	Cheque / DD_NO	Bank Name	Cheque/DD Date	Amount Calculated	Amount Paid
DD	024161	HDFC Bank	17-06-2013	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* ***

HDFC BANK

A/C PAYEE ONLY
NOT NEGOTIABLE

DEMAND DRAFT

VALID FOR 3 MONTHS ONLY

PAYABLE AT PAR AT ALL BRANCHES OF HDFC BANK LTD

1 7 0 6 2 0 1 3

REGISTRAR, GEOGRAPHICAL INDICATIONS REGISTRY

SESHAGM(C) / CTS-2010

ON DEMAND PAY
अदा करे

Rupees FIVE THOUSAND ONLY
रुपये

Or Order
या उनके आदेश पर

₹ *5,000.00

FOR VALUE RECEIVED

For HDFC BANK LTD.

HDFC BANK LTD

CHENNAI - CLEARING BRANCH - 600002

GURGAON - BANKHOUSE - HARYANA

GURGAON - 122002

Ref. No. 05721[illegible]2494

DRAWEE BRANCH

ISSUING BRANCH

AUTHORISED SIGNATORIES

Please sign above

⑈024161⑈ ⑆102400931⑆ 999992⑈ 16

GI APPLICATION No.
435

Received Rs. 5000 in cash/ Cheque/DD/MO on 29.8.2013 vide entry no. 2185 in the register of valuables
Cashier
29/8/13
D.D.O.

THE GEOGRAPHICAL INDICATIONS OF GOODS

(REGISTRATION AND PROTECTION) ACT, 1999

(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

1. 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	:	North Eastern Regional Agricultural Marketing Corporation Ltd (NERAMAC)
(B) Address	:	9 Rajbari Path, Ganeshguri, G S Road, Guwahati – 781 005
(C) List of authority	:	Under the administrative control of the Ministry of Development of North Eastern Region (DoNER), Government of India, New Delhi
(D) Name of the geographical indication [and particulars]	:	 Assam Karbi Anglong Ginger
(E) Type of Goods	:	Class – 30 – Spices (Ginger)

(F) Specification :

Given below is the specification of 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 reaction	Susceptible to Rhizome rot	Susceptible to Rhizome rot
Seed rate (q/ha)	12	15
Average yield	160	175

*[**Source:** Regional Agricultural Research Insitute (RARS), Assam Agricultural University (AAU), Diphu]*

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

Assam Karbi Anglong Ginger

(H) Description of Good:

Family: *Zingiberaceae* , **Genus:** Zingiber, **Botanical Name:** *Zingiber officinale Rosc*

Ginger is one of the important cash crops and spices grown in India and in many other tropical and sub-tropical regions of the world. Due to its distinct flavor 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. India is the largest producer and exporter of ginger. India exports ginger to more than 50 countries, particularly the Middle East.

Ginger is grown in an area of 60,000 ha with a production of more than 2.00 lakhs tons. India also produces and exports value added ginger products like ginger oil and ginger oleoresin. 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.

Kerala, Orissa, Andhra Pradesh, Himachal Pradesh, Meghalaya and West Bengal are important ginger growing states within the country. About 60% of the area under ginger cultivation is in Kerala, which accounts for 25% of the country's production. Northeast India is also considered an important ginger growing area. The agro-climatic conditions of northeast India, characterized by warm and humid summers with abundant rainfall, and cool winters, is favorable for ginger cultivation.

Ginger is cultivated as a cash crop, mainly in jhum fields spread over the hills and plains of tribal-dominated areas of the entire region. In northeast India, Meghalaya tops the list of ginger producing states; other states like Mizoram, Nagaland, Manipur and Assam also produce substantial amount of ginger. Since there is minimum use of agro chemicals in the NER, organic ginger and its value added products have immense potential for economic exploitation.

(I) Geographical area of Production and Map :

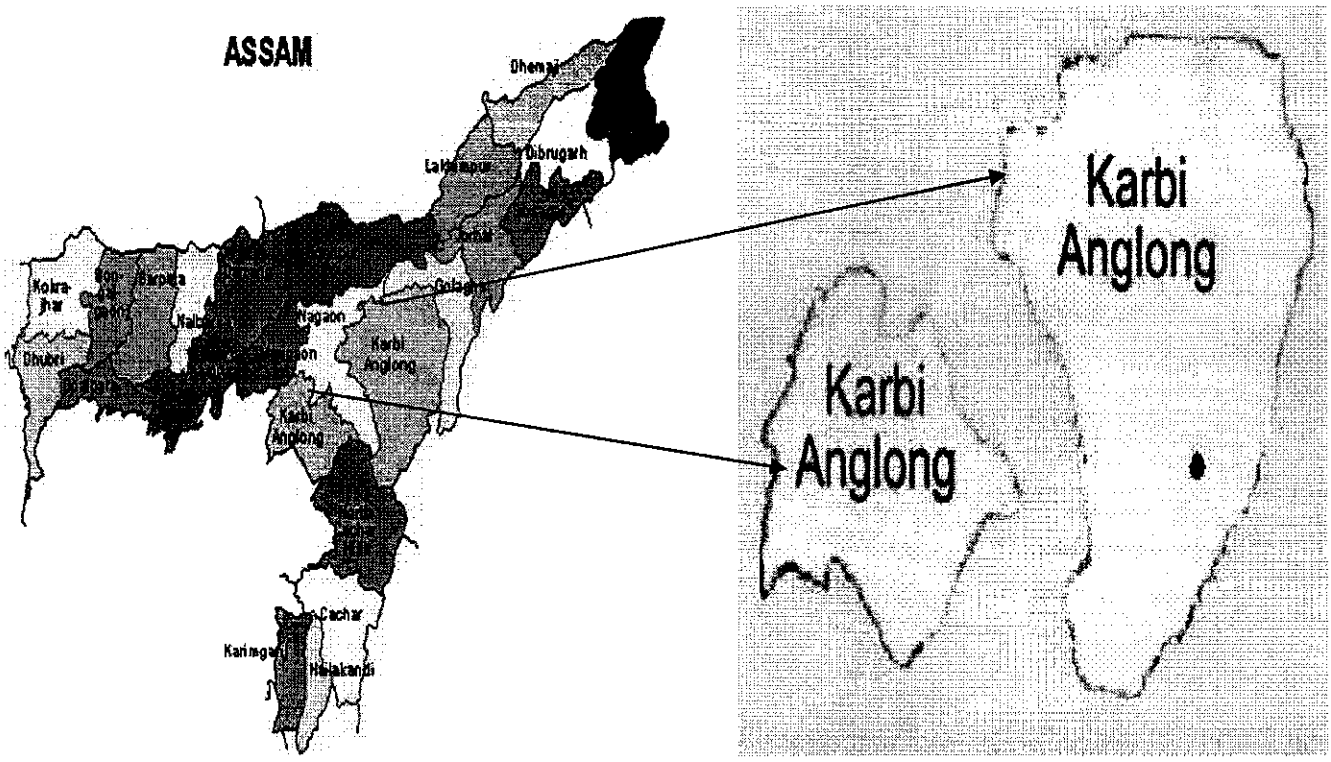
Ginger prefers warm, humid climate with well-drained soils like sandy or clay loam, red loam or laterite loam for its successful growth. In North East region ginger is grown as rainfed crop while in other parts of the country it is grown both as rainfed and irrigated crop. It is an exhaustive crop by nature and, therefore, not advised to grow in the same field year after year (Gosh, 1984). In North East region, it is rotated with French bean or soybean, which not only improves the physical condition of the soil but also give additional income to the farmers.

One of the most significant features of the agriculture in the NE region is the prevalence of jhum cultivation in large parts. In the hills of the region ginger is generally cultivated on raised bed (called bun) in the jhum fields (Gosh, 1984). Under this, large tracts of hills are demarcated and the forest in the region is cleared by burning. The land thus available is utilized for cultivation. Raised beds (called bun) of about one meter width are made along the slope and again covered with farm wastes, dried leaves, etc., which are being burnt before sowing of seed rhizomes.

The burning of field helps in reducing the weed growth, soft rot disease and increase the availability of certain plant nutrients, particularly the Potash. This jhum land is abandoned after 3-4 years and new piece of land is cleared in similar fashion. This has been the tradition in the region for centuries, and the life style of several tribes is associated with this cultivation. However, earlier the population being less, the pressure on the forest was less. Thus the land after being abandoned got sufficient time (10-15 years) for regeneration of forests. However with increase in the population, pressure on

land has increased and time period for this cycle has got shortened (3-5 years). This is causing considerable concern amongst the researchers and environmentalists. In the region usually the seed rhizomes are stored in the pit under soil cover after harvest. By March-April when the rhizomes start sprouting, they are taken out and planted in the fields. In the plains of Assam and Tripura even earthing up and ridge and furrow planting system is observed in ginger fields.

Map of karbi Anglong Ginger cultivated in India



Karbi Anglong Ginger production area lies between longitude: 89.42^{0}E to 96.0^{0}E to latitude: 24.5^{0}N to 28.0^{0}N

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

Ginger cultivation began in South East Asia and has since spread to different parts of the country.

The English name **ginger** comes from French: *gingembre*, Old English: *gingifere*, Medieval Latin: *gingiber*, Greek: *zingíberis*. Ultimately the origin is from the Dravidian word *inji ver*. The botanical term for root is *ver*, hence inji root or inji ver.

It is considered that the Karbi Anglong Ginger exisits from the time when Karbi Anglong District (1951) was formed. It is grown in **"Singhasan Hills", khonbamon.** The climatic conditions and soil in singhasan hills is suitable for growing Karbi Anglong Ginger. Earlier the importance of Karbi Anglong Ginger was not known to other parts of Assam and its neighboring states but with the advent of

GINFED it got its popularity. Due to the involvement of Traders and brokers, farmers didn't get their remunerative amount for their Ginger Cultivation. But with the inception of GINFED (Ginger Growers Cooperative Federation Ltd) the exploitation of farmers has also reduced a lot and they are getting their desired amount.

In 2003, the hill district of Karbi Anglong witnessed a series of clashes between Karbi and Kuki ginger growers of Ginger Plant the Singhasan hills. The district was rocked by gun battles between the militant Kuki Revolutionary Army (KRA) and the United People's Democratic Solidarity (UPDS), militant outfits of Kukis and Karbis respectively, in October and November 2003, 50 persons died in these clashes. Several hundred people were injured and thousands of villagers belonging to both communities were rendered homeless in the two-month-long violence.[12]

The UPDS banned ginger cultivation in the Singhasan hills, terming it a threat to the environment, as the slash-and-burn method of cultivation was adopted. It called a seven-day economic blockade against the alleged destruction of forest by ginger growers, an overwhelming majority of them Kukis. The organization set fire to several ginger-laden trucks during the agitation.[12]

Kuki organizations, on the other hand, alleged that each ginger-laden truck was forced to cough up between Rs.5, 000 and Rs.20, 000 to the UPDS, and the refusal by Kuki farmers to pay the money infuriated the organization. The clashes continued in 2004.[12]

(K) Methods of Production :

1.1. Climate and soil

Soil: 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

Climate: Ginger is a tropical crop and is cultivated from sea level to altitudes of about 1500 m ASL. However, the optimum elevation for its successful cultivation is in the range of 300–900 m ASL. 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.

1.2. 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.

1.3. 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.

1.4. 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.

1.5. 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.

1.6. Cultivars

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 (gingerol) content, which is suitable for industrial extraction.

Varieties called **"Rio-de Janeiro"** and **"Nadia"** are popular among growers. Besides these, most of the states have their own local or traditional varieties. In the NER, different types of local and hybrid varieties are available, viz., ***"Nadia, Moran, Thingpui, Thinglaidum, Karkai, Tura, Jate, Nadia, Rio-de-Janeiro, Suprabha, Poona, Varada, China"***, etc.

1.7. Site 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

1.8. Nutrient Management

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.

1.9. 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.

1.10. 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.

1. 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.

2. 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 (Meghalaya) on an average. The harvested ginger is kept on raised wooden/bamboo platforms inside the shed, either for seed or for sale.

3. 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.

4. Storage:

No storage godown treatment is followed as the ginger is sold within a short span of time (one week). In Meghalaya and 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 **"Glycosmis pentaphylla"** 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.

1.11. Plant Protection Measures

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.

(L) Uniqueness :

Growers produce mainly two varieties of ginger: Nadia, with high fibre; and Aizol with less or no fibre. Aizol is more in demand and has negotiating value in Domestic and the international market.

Ideal requirements for Ginger Cultivation:

S. No	Ideal requirement for Ginger Cultivation	Range/content
1	Temperature range	
2	Rainfall (low, high, medium), range	Medium – high
3	Humidity	60 –90 %
4	Land/soil type	Well drained loam soil
5	Sunlight (dark, bright, moderate)	Moderate
6	Phosphorus	Medium (9.8 – 24.5 kg/ha)
8	Nitrogen	Medium (272 –544 kg/ha)
9	Potash	High (>281.25 kg/ha)
11	Manure/fertilizer	10 t FYM NPK 20:60:20 Kg/ha
12	Carbon	Low (<0.5 %)
13	Shade Requirements	Partial

*[**Source**: Dr. A.K. Deka, Krishi Vigyan Kendra, Diphu (Karbi Anglong)]*

(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 **30** in respect of Spice **(Karbi Anglong Ginger)** 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.

2. 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

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