सत्यमेव जयते

भारत सरकार
Government of India

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. 34

MAY 31, 2010 / JYAISTHA 10, SAKA 1932

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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 34 of the Geographical Indications Journal dated 31st May 2010 / Jyaistha 10, Saka 1932 has been made available to the public from 31st May 2010.

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158	Kannauj Perfume (Logo Mark)	3	Manufactured
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162	Moradabad Metal Craft (Logo Mark)	6	Handicraft
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176	Dhaniakhali Saree	24,25 & 26	Handicraft
177	Varanasi Glass Beads	21	Handicraft
178	Khurja Pottery	9,11 &21	Handicraft
179	Kuthampully Sarees	24 & 25	Textile
180	Bhagalpur Silk Fabrics & Sarees	24& 25	Textile
181	Kashmir Paper Machie	16 & 20	Handicraft
182	Kashmir Walnut Wood Carving	20	Handicraft
183	Bagru Hand Block Print	24 & 25	Handicraft
184	Saharanpur Wood Craft (Word Mark with Logo)	20	Handicraft
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PUBLIC NOTICE

It is brought to the notice of all concerned that a priced publication of Geographical Indications Journal is available from July 2004. It would be a bimonthly publication. The cost of each Journal is Rs.300/-(Rupees Three Hundred Only). The cost of Annual Subscription is Rs.1800/- (Rupees One Thousand Eight Hundred Only). There will be six issues annually. Interested parties who are desirous of subscribing the Annual Subscription for the above Journal may forward a Demand Draft which should be drawn in favour of "Registrar of Geographical Indications" payable at Chennai.

The public can also remit cash at the counter of Geographical Indications Registry, Intellectual Property Office Building, Industrial Estate, SIDCO RMD Godown Area, G.S.T. Road, Guindy-600 032 on all working days.

For any further information in this regard please contact:-

The Deputy Registrar of Geographical Indications,
Geographical Indications Registry,
Intellectual Property Office Building,
Industrial Estate, G.S.T. Road, Guindy,
Chennai - 600 032.

Tel: 044 - 22502091 & 92,
Fax No: 044 - 22502090
E-mail: gir-ipo@nic.in

Sd/-
(P. H. KURIAN)
Registrar of Geographical Indications

PUBLIC NOTICE

No.GIR/CG/JNL/2010 Dated 26th 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 1st April, 2010, The Geographical Indications Journal will be Published and hosted in the IPO official website www.ipindia.nic.in free of charge. Accordingly, sale of Hard Copy and CD-ROM of GI Journal will be discontinued with effect from 1st April, 2010.

Sd/-
(P. H. KURIAN)
Registrar of Geographical Indications

G.I. APPLICATION NUMBER - 140

Application is made by **Comité Interprofessionnel du Vin de Champagne (CIVC),** 5, rue Henry Martin, BP 135, 51204, Epernay, France**,** for Registration in Part - A of the Register of **Champagne** under Application No.140 in respect of Wines falling in Class – 33, is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

Applicant	**:**	**Comité Interprofessionnel du Vin de Champagne (CIVC),**
Address	**:**	5, rue Henry Martin, BP 135, 51204, Epernay, France.
Geographical Indication	**:**	**CHAMPAGNE**
Class	**:**	**33**
Goods	**:**	**Class – 33** – Wines

(A)	**Name of the Applicant**	**: Comité Interprofessionnel du Vin de Champagne (CIVC),**
(B)	**Address**	**:** 5, rue Henry Martin, BP 135, 51204, Epernay, France.
(C)	**List of association of persons/ Producers / organization/ authority**	**:** To be provided on request
(D)	**Type of Goods**	**: Class – 33 -** Wines
(E)	**Specification**	**:**

'Champagne' to describe a naturally sparkling wine produced in a defined region of the Champagne district of France by a process of double fermentation from grapes grown in the Champagne District.

- ***Grape varieties*** – Three main grape varieties are used for production of 'Champagne' – two dark varieties - **Pinot Noir** (38%) & **Petit Meunier** (34%) and a white variety -**Chardonnay** (28%). Two other anecdotic varieties are also authorized : **Arbanne** and **Petit Meslier**.
- The production of grapes and the elaboration process must happen completely within the boundaries of the Champagne Region
- ***The vine training:*** The density of Champagne vines is extremely high (approximately 8,000 vine stocks/hectare): Spacing between rows of vines must not exceed 1.5 meters / Distance between vine-stocks in the same row must be between 0.9 and 1.5 meters / The sum of the space between rows and the distance between vine-stocks must be less than 2.5 meters
- ***Pruning****:* Various forms of pruning are authorized for Champagne vines. They are mentioned below:
  - Chablis pruning
  - Cordon de Royat pruning
  - Guyot simple pruning
  - Guyot double pruning
- Vines can be harvested from the second year onwards following the year in which they were planted before 31st August.
- ***Yield*** - Each year, a decree is published to establish the maximum yield per plot, within a maximum yield ceiling of 15,500 kg per hectare.
- ***Harvest*** - Grapes must be transported intact up to the wine presses. The harvest is 100% handmade /the baskets, crates and wooden containers used to transport the grapes must feature apertures at the bottom and on all the sides.
- ***Pressing*** - The wine presses must be approved by the National Committee for Wines and Brandies of France's National Institute of Appellations of Origin. The pressing must take place in presses that can hold at least 2,000 kg and at most 12,000 kg of intact grapes per load. From 160 kilograms of grapes, 102 liters of must are obtained from the pressing.

- ***The wine making process*** - After an initial traditional alcoholic fermentation, the still wines blended - a traditional Champagne practice: blending wines that come from different grape varieties, vineyards and harvests.
- ***Second fermentation into the bottle*** - When the wine is bottled, an amount of sugar and yeasts are added to the blend before the bottle is stopped. Still wines cannot be bottled before the 1st of January after it has been harvested.
- ***Aging on lees*** - Wines must age a minimum of fifteen months after bottling. The aging period is extended to three years for vintage Champagne.
- ***End of the process***: After riddling and disgorging, a liqueur is added to the wine (dosage).
- 'Champagne' wines must be sold in the bottles within which they became sparkling (second fermentation into the bottle).
- Bottles containing the wine must be sealed with a 'mushroom-shape' cork bearing the name 'Champagne'.

(F) Name of Geographical Indication :

CHAMPAGNE

(G) Description of Goods :

- 'Champagne' designates a light and fresh sparkling wine – white or rosé.
- Champagne wines have a vast palette of aromas, from floral and citrus fruits aromas (young wines) up to toast and candied fruits (elder wines).
- The colors vary from pale gold to antique gold for white wines and from coral pink to salmon pink for rosé wines.
- Alcoholic content is 10% to 13% by volume
- The effervescence is one of the particularities of Champagne wines. It is intense and persistent for young wines and becomes more delicate and creamy for older wines.
- Champagne wines can be extra-brut, brut, semi-sweet, sweet – depending on the amount of sugar added in the liqueur de dosage, at the end of the process.
- Champagne is produced in a defined region of the Champagne district of France by a process of second fermentation into the bottle from grapes grown, exclusively, in the Champagne District.
- Though wines were produced in the region since the Roman era, 'Champagne' became a successful wine in the early 19th century.
- On July 22, 1927, a law was passed defining the precise places of Champagne production. It established the first 'Champagne' quality rules (production conditions, authorized grape varieties, etc.). This law recognized and laid down local and traditional know-how.
- The Decrees of 28 September 1935 and 29 June 1936 completed the rules on the quality of 'Champagne', defining the natural and human factors. These initial regulations where followed by numerous others (see the Statement of case).

- ‘Champagne’ has also been acknowledged and protected at the European community level through EC regulation nº1493/99 of the European Council.
- The Champagne region is about 100 miles east of Paris around Reims and Epernay, where there is chalky, flinty soil and the climate, with continental and oceanic influence, is subject to important variations of heat and cold and important but regular rainfall. The whole vineyard represents about 34,000 hectares.
- This area includes villages in the five administrative areas in north-eastern France. ‘Champagne’ growing area stretches over 150 km from north to south, at the very northernmost vine growing area in France.
- Most of the vines are planted on hillsides, thus providing for good drainage and maximum exposure to the sun.
- Human factors – the production of grapes (grape varieties, pruning methods, harvest, etc.) and the elaboration process (pressing, second fermentation, aging, etc.) were adapted, generation after generation, to the difficult and particular climate and soil, in order to produce a unique and qualitative sparkling wine.

(H) Geographical Area of Production and Map as shown in page no. 26:

French law of July 22, 1927 defines ‘Champagne’ wines’ to mean wines made exclusively from grapes harvested and processed in the geographical area comprising of two defined zones as follows:

a. The defined region which refers to the zone, defined by the names of towns and villages, in which the ‘Champagne’ wines must be produced and handled. This zone includes villages in the five administrative areas in north-eastern France, namely, Aisne, Aube, Marne, Haute-Marne and Seine-et-Marne. ‘Champagne’ vide growing area stretches over 150 km from north to south, at the very northernmost vine growing area in France, 100 km to the north east of Paris.

b. The defined production area which includes all of the plots of land located within the towns and villages of the defined region on which it is possible to plant vines suitable for making ‘Champagne’ appellation d’origine côntrolée wines.

The total surface area of the production is approximately 34,000 hectares.

(I) Proof Of Origin (Historical records) :

The region in which the Champagne vineyards are found is about 100 miles east of Paris around Reims and Epernay, where there is chalky, flinty soil and the climate is subject to extreme variations of heat and cold.

Vines were grown in the said region back in the Roman period, but it was not until the end of the 17th century, when the art of sparkling wines was perfected, that the renown of ‘Champagne’ wines grew.

Given the success of 'Champagne' wines in the 19th century, local wine growers came together in order to defend what had become the veritable symbol of their heritage: the name 'Champagne'.

In 1844, they undertook successful legal proceedings before the Court of Tours to seek redress against French wine growers (not from Champagne) who were using the name 'Champagne' to promote their sparkling wines which was subsequently confirmed in 1845 by the Court of Cassation in Paris. Shortly thereafter, they obtained a similar judgement from the Appeal Court of Angers which, in 1887, laid down the premises of the geographical indication, 'Champagne':

> "by the name Champagne or Champagne wine, one may only refer to a wine that is both harvested and manufactured in Champagne, the former province of France, which is geographically determined."

This judgement was confirmed by a decision handed down by the Court of Cassation in 1889.

With the creation of the Champagne houses, traders began to export 'Champagne' wines and these wines became popular the world over. During this period, production volumes increased massively, going from 7 million bottles in 1844 to some 28 million bottles in 1899.

Following the judgement of 1889, a number of legislative texts were produced to define the region and the production conditions for Champagne appellation d'origine côntrolée wines.

On July 22, 1927, a law was passed defining the zones of Champagne production. This law was based on the traditional land usage and areas eligible for Champagne production were to be under vine cultivation at the time of the legislation or prior to the phylloxera epidemic which affected the region in the early 1900s. The law of 1927 also established the first 'Champagne' quality rules such as production conditions and authorized grape varieties apart from defining the limits of the geographical area which are still in force today.

The decree of 28 September 1935 sets forth rules on the quality of 'Champagne' wine elaboration; the decree of 29 June 1936 (amended) defines the 'Champagne' appellation d'origine côntrolée, elaborating the definition of the natural and human factors.

During the period from 1935 to 1997, various quality rules concerning the production of 'Champagne' have been laid down and a brief summary of the same in chronological order is as follows:

a. **1938** – Regulation methods of vine pruning were laid down.

b. **1952** – Regulations applying to vintage Champagne (wines produced exclusively from a single harvest) were laid down. A mandatory three-year period of ageing in bottle commencing in the year following the harvest was prescribed.

c. **1978** – Height, spacing and density of plants (8,000 to 9,000 low-yield plants per hectare) and training and further pruning methods were laid down.

d. **1984** – Ban on the bottling of wines before 1st January of the year following the harvest.

e. **1991** – Approval becomes compulsory for all grape pressing centers.

f. **1993** – Juice extraction is reduced to 102 litres per 160 kilos of grapes rather than 100 litres per 150 kilos.

g. **1997** – Minimum periods of ageing in bottle are extended to 12-15 months for non-vintage wines and three years for vintage wines, commencing on the date of bottling.

'Champagne' has also been acknowledged and protected at the European community level through EC regulation 1493/99 of the European Council.

It is also to be noted that the geographical indication 'Champagne' is now protected in most of the countries of the world by means of bilateral agreements or by means of its registration as a geographical indication or through specific national regulations.

(J) Method of Production :

The following are the production rules set out and followed in respect of the 'Champagne' wines:

The spreading of slush and composts of urban origin over the plots of land that are located in the production area of Champagne is prohibited.

The Growers and producers of 'Champagne' must store, handle and process their grape harvests and their wines in separate premises.

The name 'Champagne' is eligible to be applied only to wines that are grown and produced completely within the boundaries of the 'Champagne' wine growing regions, which are carbonated by natural fermentation in bottles and which come from the specified production area and produced from the prescribed grape varieties.

The 'Champagne' wine growing region comprises exclusively:-

i) the territories defined in the decree of 17th December, 1908.
ii) the districts of the former province Champagne and the former country of Bar-sur-Seine not covered under the decree of 17th December, 1908 but for which the 'Champagne' name was claimed in one or more crop declarations made between 1919 and 1924;
iii) the districts of Cunfin, Trannes and Precy-Saint-Martin (Aube)

Within the aforementioned territories, only those plots currently planted with vines or which were used for vines before the arrival of phylloxera may confer the right to bear the name 'Champagne' on their wines.

'Champagne' wine will be produced only from grapes that come from the grape varieties mentioned above.

In order to qualify for the right to use the 'Champagne' appellation of origin, wines must be produced in accordance with local common practice from grapes that are transported intact up to the wine presses. The baskets, crates and wooden containers used to transport the grapes from the place where they are picked to the wine presses must feature apertures at the bottom and on all the sides designed to enable the rapid and complete outflow of juice during transportation and while awaiting pressing.

The wine presses must be approved by the National Committee for Wines and Brandies of France's National Institute of Appellations of Origin. This approval, which shall be granted based on the opinion of a commission of experts appointed by the National Committee, shall certify that the approved wine presses comply with the qualitative standards featuring in specifications approved by the National Committee for Wines and Brandies of France's National Institute of Appellations of Origin. Any opening, extension or alteration of a wine press must be approved before the wine press is put into production.

The pressing must take place in presses that can hold at least 2,000 kg and at most 12,000 kg of intact grapes per load. The presses that are used must channel the grape must in terms of vintage and size in accordance with common practice in the Champagne Industry.

A log must be kept by each wine press. This log must state, for each grape pomace, the weight of each type of grapes used, their potential alcohol content, their origin, the name of the wine grower and the volume of grape must that was yielded.

'Champagne' name can be used on a particular wine only in the following conditions:-

i. Wine produced from yields of less than or equal to 13,000 kilograms of grapes per hectare of productive vines;
ii. In the case of young wines, wines obtained from the second year onwards following the year in which they were planted before 31st August.
iii. Wines produced from vines that have not been subjected, even partially to either annular (shaped like a ring) pruning or a similar process;

iv. Grapes whose saccharin content and wines whose alcoholic percentage were fixed on the advice of the commission created by Article 3 of the law of 28th September, 1935.

The harvest declaration must state the weight of the grapes used and the corresponding quantity of grape must (freshly pressed grape juice containing pulp, skin, stems and seeds) produced.

The 'Champagne' name may also be applied on a wine obtained from a maximum quantity of grape must of 102 liters produced from 160 kilograms of grapes, following pressing carried out in accordance with the prescribed rules.

Inspection would be carried out by officials from the Directorate General for Competition, consumption and Fraud Prevention and by those from Directorate General of Customs and Excise.

When grapes and wines in barrels, intended for 'Champagne' production and which fulfill the conditions of origin, production area and grape varieties are transported, it shall be accompanied with a customs certificate bearing the 'Champagne' name from one 'Champagne' growing region to another.

Since 1st January, 1998, except when being transferred between operators in the region, 'Champagne' wines may only leave the separate wine warehouses a minimum of fifteen months after bottling. These bottles will bear a label containing the name 'Champagne' in highly visible lettering. Cases or packaging containing these bottles must bear the same name, also in highly visible lettering.

Bottles containing the wine must be sealed with a cork bearing the name 'Champagne'. Bottles of finished wines on which the 'Champagne' name is used must bear the full name or corporate title of the producer as well as the district or area of the district where the latter is based, in clear and legible letters.

Any dispatch documents for 'Champagne' wines being sent to a producer or handler-dealer must be drawn up at least six hours before collection.

No wine using the 'Champagne' name may be bottled before the 1st of January after it has been harvested. The removal of by-products produced by fermentation in bottles designed to carbonate the wine must be performed by disgorgement (removing sediment). From 1st January, 1998, disgorgement must be carried out after a period of twelve months from the bottling date; a period during which the wines must constantly remain in bottles.

The wines covered by the 'Champagne' appellation of origin must be created and sold in the bottles within which they are fermented in order to become sparkling wine, with the exception of 'Champagne' wine sold in:

- bottles with an internal volume of less than 375 milliliters;
- bottles with a volume of more than 3 liters.

a) The vine training: The vine training is an important element in the quality and specificity of the wines. The density of Champagne vines is extremely high (approximately 8,000 vine stocks/hectare), which encourages the maturation of the grapes. The creation of 'Champagne' is the result of a balanced marriage between the qualities of the different grapes: the Pinot Noir gives body and

vigour, the Chardonnay finesse and lightness and the Pinot Meunier roundness and fruitiness. In each season there is different work to do in the vineyard and that each step is strictly controlled to encourage the vigor of the vine-stocks and the quality of the grapes. For example:

- Spacing between rows of vines must not exceed 1.5 meters
- Distance between vine-stocks in the same row must be between 0.9 and 1.5 meters
- The sum of the space between rows and the distance between vine-stocks must be less than 2.5 meters

b) Pruning: There are four authorized pruning methods as shown below which enables the wine grower to choose the method he wants depending on the grape variety and the characteristics of the soil on each plot of land.

1. Chablis pruning
2. Cordon de Royat pruning
3. Guyot simple pruning
4. Guyot double pruning

c) Yields: Each year, a decree is published to establish the maximum yield per plot, within a maximum yield ceiling of 15,500 kg per hectare.

d) The harvesting of the grapes: Champagne is the only winegrowing region where grapes are still harvested entirely by hand. The law requires that the grapes are taken to the press undamaged (and no mechanical technique enables this to be achieved). This obligation is a guarantee of quality and ensures that the grape juice is not coloured. Picking is carried out about one hundred days after the flowering of the vines, which generally takes place from the end of May to the middle of June. The law requires that the grapes are taken to the press undamaged. The grape bunches are examined one by one and the green or damaged grapes are discarded. Not all of the harvest goes into the making of ‘Champagne’. A maximum yield per hectare is fixed for each producer. This ensures that the quality is not threatened by an over zealous search for quantity. Compliance with these principles preserves the quality and the specificity of each grape-variety.

e) Pressing: When the grapes are harvested, they are immediately taken to the pressing centres that are distributed across the area, in order to reduce transport time and ensure the quality of the juices. The law sets out strict rules for the pressing of the grapes and the conditions under which pressing is carried out such as:

- the grapes are transported with utmost care due to their fragility and placed in special presses. The main objective of the process is to ensure that the juice obtained is not tainted by the skin of the black grapes;
- the bunches of grapes must be whole when pressed;
- they must be pressed in approved pressing centres, where the facilities have been declared compliant with a set of quality specifications using presses with a capacity between 2,000 and 12,000 kg;

- this operation is carried out rapidly and according to the clearly set out standards of 'Champagne' production. The initial two or three rapid pressings of the grapes produce the "cuvee" juice, subsequent pressings give the "premier taille" and then the "deuxieme taille". Any further juice cannot be made into 'Champagne';
- 160 kg of pressed grapes gives 102 litres of must;
- The initial press which provides 2,050 litres of must for 4,000 kg of grapes, then a second press providing only 500 litres for 4,000 kg.

f) The wine making process: After an initial traditional alcoholic fermentation, the still wines undergo a specific elaboration process which makes the 'Champagne' wines so distinctive.

g) The blend: The blending of still wines is a traditional Champagne practice. The process involves blending wines that come from different grape varieties, vineyards and harvests, in order to obtain maximum quality. Each winegrower makes blends to express a particular style and personality.

h) The second fermentation in bottle: This is a technique which was devised in Champagne in the course of the 19th century. Before the wine is bottled, an amount of sugar and yeasts are added to the blend before the bottle is stopped. According to regulations, this operation, known as *triage*, cannot start before 1st January following the year of harvest. The fermentation process lasts from 6 to 8 weeks, during which time the yeasts transform the sugar into alcohol and carbon dioxide thereby making the wine effervescent and bubbly.

i) Aging on lees: Another feature of 'Champagne' wines is that after the second fermentation, the wines are aged with their lees (the sediment of yeasts left over from fermentation) for varying periods. Regulations specify that this period cannot be less than 15 months, or even 3 years for vintage wines.

j) Riddling and disgorging: When the ageing process has terminated, the bottles are "riddled" in order to make the lees slowly move down into the neck of the bottle. The "disgorging" process then removes the lees and clears the wines.

k) Dosage: Dosage refers to the fact that after disgorging, a liqueur made up of sugar and 'Champagne' wines is added. This offsets the wine that was lost during the disgorging process. According to the amount of sugar added, the wine will be extra brut, brut, medium dry, dry, etc.

l) Labeling: Besides production rules, there are also labeling rules set out and followed while bottling / packaging the wines. The top is sealed with a tin or aluminum capsule and a label is stuck on the front indicating essentially the type of 'Champagne', the degree of alcohol, the volume, the origin and the name of the wine grower or merchant. By virtue of Community law, the geographical indication 'Champagne' must feature on all of the 'Champagne' wine packaging items such as:

i. Bottle;
ii. Cork (on the part inside the bottleneck);
iii. Packaging (boxes, gift packs, cardboard boxes, crates, etc.).

(K) Uniqueness:

The natural and human factors contributing to the Uniqueness of 'Champagne' are as follows:

❖ ***Natural factors :***

The agro-climatic conditions - 'Champagne' wines are known for their inimitable characteristics which owe their origin to the unique combination of climate, the chalky, flinty soil in the Champagne region and a specific traditional method and know-how employed by the Champagne producers. Because of its northerly location, the Champagne region has two climatic influences, both oceanic and continental. Owing to the oceanic influence, there is considerable rainfall and less extremities in temperatures over the seasons. The continental influence is responsible for the very distinctive winter and summer seasons: harsh winters with strong frosts and long hours of sunshine in the summer. The subsoil in the Champagne region is mainly calcareous (containing calcium carbonate) or chalky and possesses combined qualities of drainage as well as water storage and redistribution capacity. The drainage capacity of the soil helps the vines to develop and grapes to mature well and the water storage and redistribution capacity provides a moderate but continuous level of irrigation even in dry periods.

Most of the vines are planted on hillsides, thus providing for maximum exposure to the sun. The average slope is 12%, but some slopes reach up to 59% in some areas. These natural factors have apparently over the years had an influence on local vine growers who have adapted their cultivation methods and the way they produce their wines to take these characteristics into account.

Grape varieties – There are regulations setting out a list of authorized grape varieties that may be cultivated.

The kind of grapes, its production coupled with natural factors including climatic conditions are the key factors in determining the quality of 'Champagne'. Three grape varieties, each accounting for around a third of planted vineyards, are used for production of 'Champagne' – two dark grape varieties- **Pinot Noir** (38%) & **Petit Meunier** (34%) and a white grape variety-**Chardonnay** (28%).

a. ***Pinot Noir –*** a black grape with a white juice accounts for nearly 38% of the plantings in Champagne and lies at the heart of most blends – it gives 'Champagne' its body, structure, strength and grip. It is planted across Champagne and particularly so in the southern **Aube** district and grows very well in Montagne de Reims.

b. ***Petit Meunier –*** another black grape with a white juice which gives a freshness and youth to 'Champagne' constitutes nearly 34% of the plantings. Its durability and resistance to spring frosts make the **Marne Valley**, a famous frost pocket, its natural home. It ripens well in poor years and produces a soft, fruity style of wine that is ideal for blending with the more assertive flavours of Pinot Noir.

c. ***Chardonnay –*** a white grape with white juice, which contributes finesse and elegance and constitutes nearly 26% of vineyards in Champagne. It is relatively simple to grow, although it buds early and thus is susceptible to spring frosts. The CÔte des Blancs is dedicated almost exclusively to Chardonnay.

d. It is worth noting, that two other grape varieties are also authorized in the making of 'Champagne': ***Arbanne*** and ***Petit Meslier.***

❖ ***Human factors:***

The harvesting of the grapes: Champagne is the only winegrowing region where grapes are still harvested entirely by hand. The law requires that the grapes are taken to the press undamaged (and no mechanical technique enables this to be achieved). This obligation is a guarantee of quality and ensures that the grape juice is not coloured. Picking is carried out about one hundred days after the flowering of the vines, which generally takes place from the end of May to the middle of June. The law requires that the grapes are taken to the press undamaged. The grape bunches are examined one by one and the green or damaged grapes are discarded. Not all of the harvest goes into the making of 'Champagne'. A maximum yield per hectare is fixed for each producer. This ensures that the quality is not threatened by an over zealous search for quantity. Compliance with these principles preserves the quality and the specificity of each grape-variety.

❖ ***International fame, reputation and goodwill :***

Owing to a sustained promotional campaign by CIVC and its members, ranging from sponsorship and public relations activities to cellar visits and welcome receptions, 'Champagne' today has a strong image internationally.

(L) Inspection Body :

There are four main bodies involved in inspecting the 'Champagne' wines, at the various stages in their elaboration.

The **Institut National de I'Origine et de la Qualité (INAO):** This is a public administrative body, under the supervision of the Ministry of Agriculture and the Ministry of Economy and Finances, in charge of implementing the law of the recognition, management and inspection of appellations d'origine.

- **The Comité Interprofessionnel du Vin de Champagne** (CIVC),

- **The Direction Générale des Douanes et des Droits Indirects (DGDDI):** An administration overseen by the Ministry of Economy and Finances, in charge of controlling the circulation of wines and the payment of indirect duties.

- **The Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes (DGCCRF):** An administration overseen by the Ministry of Economy and Finances, in charge of ensuring the

compliance of products with all of the regulations that are enforceable in France.

There are various inspections that are carried out throughout various stages of the life cycle of ‘Champagne’ wines as follows:

The Inspection of production conditions*:* The INAO is the legal body in charge of ensuring that all production conditions are respected. These inspections involve:

- the compliance of the vineyards with regulations: vineyard plots belonging to the defined production areas, authorized grape varieties, respect for minimum vine density as well and wine training procedures, etc:

- respect for maximum authorized yields,

- the quality of the grapes at harvest time and the respect of pressing rules;

If any of these inspections highlight a problem, the INAO can issue sanctions which can be as severe as the declassification of the vineyard plot or the batch of wine in question.

a) The approval of ‘Champagne’ wines: Before being allowed to use the geographical indication ‘Champagne’ for its own wines, each vine grower must receive authorization issued by the INAO. This authorization is granted after two examinations have been carried out in order to establish that the wines comply with the enforceable regulations and are typical of the region. These examinations are:

- The analytical examination looks at the volatile acidity, total acidity and alcoholic strength by volume of the wine.

- The organoleptic examination focuses on the colour and clarity of the wine, its sediment, smell and flavour and whether or not it is a typical ‘Champagne’ wine.

In the event that this approval is refused, the wine cannot claim to have the geographical indication status.

b) Document inspections**:** All the movements of wine carried out by vine growers, at every stage of production or marketing can be inspected by CIVC and DGDDI. CIVC issues a trader’s card to any natural or legal person who participates in the cultivation of vines and the elaboration of ‘Champagne’ wines. CIVC is also authorized to inspect any documents relative to transactions between vine growers for grapes, musts, still wines and bottled wines, as well as for ‘Champagne’ wines sold to customs. DGDDI verifies that the ‘Champagne’ wines sold to customers are indeed ‘Champagne’ wines eligible for the geographical indication status.

c) Inspecting product conformity: It is DGCCRF that is in charge of inspecting product conformity. With respect to 'Champagne' wines, DGCCRF undertakes a number of operations throughout the production and marketing chains. In particular, DGCCRF checks that the wines are "marketable", with regard to the alcoholic strength, respect for authorized winemaking practices, the proper labeling of bottles, etc. DGCCRF also has a role to play at every stage, and in particular at the marketing phase, a stage where the INAO no longer has any jurisdiction over the products.

d) The downstream monitoring quality: CIVC is responsible for quality monitoring. Throughout the year, it takes samples from 'Champagne' wine distribution and marketing circuits. These samples are subjected to organoleptic examination by expert tasters. If any quality problems are observed, CIVC requests the vine grower in question to take the necessary measures to correct the problem. CIVC can carry out a technical audit of a vine grower's production process. In the event of a serious problem or the repetition of the previous problem, CIVC is authorized to take sanctions and to propose to the DGCCRF that a problematic wine be declassified.

(M) Others :

Comité Interprofessionnel du Vin de Champagne (CIVC) (hereinafter referred to as "CIVC") is a public service body having certain public authority prerogatives, created by an Act of the French Parliament, namely, Act of April 12, 1941 to manage, promote and protect the interests of persons involved in the production of wines sold under the geographical indication 'Champagne' with powers to sue and be sued. CIVC has its office at 5, rue Henry Martin, BP 135, 51204, Epernay, France. All the vine growers of the Champagne region who number about 15,000 and all the Champagne houses numbering about 140 or thereabouts are required by law to subscribe to CIVC. CIVC is not involved in the manufacture of any product but rather is an administrative authority to take decisions and, where necessary, sanctions relating to its members. It receives obligatory financial contributions from its members in order to finance its activities. Included in its powers and duties is the responsibility to manage and defend the rights in the geographical indication 'Champagne' against abuse both in France and overseas.

Ecological conservation and sustainable development

The durability of the Champagne appellation depends on its ability to keep pace with modern times. Wine growers and Champagne Houses operate in a fiercely competitive market that places increasing emphasis on the question of origin. As part of a continuing drive towards excellence, CIVC's priorities remain to conserve a reputation and a terroir (characteristics a place imparts on the taste of a wine) that indicate the promise of performance. CIVC is, therefore, committed to ecological conservation of the terroir and accordingly, every vineyard is committed to environmentally friendly viticulture. Over 15,000 wine growers, who are members of CIVC, respect the unique biosphere, soil, air water and the people who live and work in Champagne and are committed to a policy of sustainable development. Consequently, 'Champagne' is emerging as a major player in the global campaign for sustainable development based on agricultural production systems that are both economically and ecologically viable.

Carte du vignoble de Champagne

G.I. APPLICATION NUMBER - 145

Application is made by **Agricultural & Processed Food Products Export Development Authority (APEDA),** NCUI Building 3, Siri Institutional Area, August Kranti Marg, New Delhi - 110 016, India**,** for Registration in Part - A of the Register of **Basmati** under Application No.145 in respect of Rice 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.

Applicant	**:**	Agricultural & Processed Food Products Export Development Authority (APEDA)
Address	**:**	NCUI Building 3, Siri Institutional Area, August Kranti Marg, New Delhi-110 016 India.
Geographical Indication	**:**	**BASMATI**
Class	**:**	**30**
Goods	**:**	**Class – 30** – Rice

(A) Name of the Applicant : Agricultural & Processed Food Products Export Development Authority (APEDA)

(B) Address : NCUI Building 3, Siri Institutional Area, August Kranti Marg, New Delhi-110 0165, India.

(C) List of association of persons/ Producers / organization/ authority : To be provided on request

(D) Type of Goods : **Class – 30 -** Rice

(E) Specification :

'Basmati' is described as special long grain aromatic rice grown and produced in a particular geographical region of the Indian sub-continent.

The name Basmati is derived from two Sanskrit roots 'Vas' meaning 'aroma' and 'Mati' meaning 'ingrained from the origin'. In Hindi, the equivalent of 'Vas' is 'Bas' and, therefore, Basmati. Essentially, Basmati means, 'the one containing aroma'. Basmati is Nature's gift and farmers have been growing this scented rice variety for many centuries.

Two sets of tabulated details of the quality characteristics and ancillary characters of Basmati rice are as given below-

❖ ***Primary Quality Characteristics of Basmati rice***

S. No.	Parameter **	Value
1.	Minimum average precooked milled rice length (mm)	6.61
2.	Average precooked milled rice breadth (mm)	≤2.00
3.	Minimum length/breadth ratio of precooked milled rice (L/B Ratio)	3.50
4.	Minimum average cooked rice length (mm)	12.00
5.	Minimum cooked rice length/precooked rice length ratio OR Minimum elongation ratio	1.70
6.	Average volume expansion ratio	>3.5
7.	Aroma	**Present** (Qualitative sensory analysis as Panel Test *)
8.	Texture of cooked grain for high integrity (without bursting the surface), non-stickiness, tenderness, good taste and good mouth feel.	**Present** (Qualitative sensory analysis as Panel Test *)

** The grain sample for analyses will necessarily have to be 'aged' for three months under protected conditions at normal room temperature as milled kernel.

* As per standardized protocol (Directorate of Rice Research, Hyderabad).

❖ ***Other ancillary characters***

S. No.	Parameter **	Value
1.	Amylose content range	20-25%
2.	Alkali spreading value range (ASV)	4.0 – 7.0
3.	Minimum brown rice recovery (%)	76%
4.	Minimum milled rice recovery (%)	65%
5.	Minimum head rice recovery (%)	43%

** The grain sample for analyses will necessarily have to be 'aged' for three months under protected conditions at normal room temperature as milled kernel.

(F) Name of Geographical Indication :

BASMATI

(G) Description of Goods :

Basmati rice is characterized by the unique and delicately balanced combination of a number of unique characteristics such as long slender kernels with high length breadth ratio, an exquisite aroma, sweet taste, soft texture, delicate curvature, intermediate amylose content, high integrity of grain on cooking, and linear kernel elongation with least breadth wise swelling on cooking. These unique characteristics are attributable to the various natural and human factors involved in the sowing, harvesting and processing of Basmati rice.

(H) Geographical Area of Production and Map as shown in page no. 35:

In India, Basmati has been traditionally grown and produced in the entire states of Punjab, Haryana, Delhi, Himachal Pradesh, Uttarakhand, and parts of western Uttar Pradesh and Jammu & Kashmir.

It may be relevant to state that the States of Punjab, Haryana and Himachal Pradesh were originally part of the erstwhile Punjab and, as a result of the reorganization of the states in India for administrative reasons, these separate states have been formed. Consequently, the Basmati growing area which fell in the undivided Punjab is now shared among the various states as aforesaid.

Extremes	District	State	Geographic Coordinates
East	Pithoragarh	Uttrakhand	81º 02' 09.3" E Longitude
West	Firozepur	Punjab	73º 52' 33.9" E Longitude
North	Chamba	Himachal Pradesh	33º 16' 14.7" N Latitude
South	Auraiya	Uttar Pradesh	26º 22' 13.5" N Latitude

❖ ***Natural factors***

The agro-climatic conditions – The traditional varieties of Basmati rice are long duration varieties which come to maturity in the month of October. The photoperiod sensitivity of traditional Basmati rice varieties makes these vulnerable to erratic climate which sometimes reduces the productivity. Further, traditional Basmati rice may be vulnerable to lodging. These limitations have been overcome to a great extent in the evolved varieties using scientific, genetic and plant breeding methodologies. The evolved varieties are able to withstand changes in the climate within the defined growing area. The evolved varieties come to maturity towards the end of September to the first half of October in the defined growing areas when the temperature is conducive for accumulation and retention of aroma during grain filling process. The evolved varieties come to harvesting stage about 20-30 days earlier than traditional varieties.

Further, to overcome the problem of lodging, research programmes were initiated for the development of semi-dwarf high-yielding Basmati varieties which led to the first success in the form of 'Pusa Basmati-1' by the Indian Agricultural Research Institute in 1989. Since then, all the evolved varieties have used this character which also enables the Basmati plant to better respond to fertilizer.

Barring that, both traditional and evolved varieties must have the essential agro-climatic conditions such as requirement of high humidity, sufficient water supply and normal soil. In other words, only when grown in the aforesaid geographical region of the Indo-Gangetic plains do these varieties, traditional or evolved, produce the characteristics associated with Basmati rice.

The eating qualities of Basmati rice such as a soft texture, delicate curvature, high integrity of grain on cooking and linear kernel elongation with least breadth wise swelling on cooking are greatly influenced by the agro-climatic conditions such as soil, fertility, irrigation practices, cool weather during grain filling period, harvesting, storage etc. Even the cooking qualities cannot be replicated when the seed is grown outside the traditional growing areas.

Basmati rice emits a specific aroma in the field, at harvesting, in storage, during milling, cooking and eating which is due to harmonious combination of more than 200 chemical compounds among which, 2-acetyl-1-pyroline is the most predominant.

(I) Proof Of Origin (Historical records) :

Indian farmers are known to have been growing scented rice varieties for several centuries. Scented rice varieties in ancient literature were known by various names. In fact, the name Basmati is so old that the origin of assigning the same to this famed rice is lost in antiquity. The first recorded reference to Basmati rice can be found in the epic poem *Heer Ranjha* by the great Punjabi Poet Varis Shah dated 1766. The said poet had sung in praise of Basmati rice at the wedding preparations of the beautiful heroine, Heer.

Historically, Basmati rice has been associated in the public mind as special long grain aromatic rice grown and produced in the aforesaid region in the foothills of the Himalayas. This public perception and recognition is evident from the general body of information such as the following:

a) References to Basmati rice can be found in gazetteers published during the British rule in India. Some such gazetteers referring to the cultivation of Basmati rice.
b) Besides, Basmati rice traders nationally and internationally have been consistently describing Basmati rice marketed by them to mean a unique rice variety originating from a region in the foothills of the Himalayas and possessing the said qualities. Certain specimen packaging of Basmati rice sold in India and abroad by traders as well as extracts taken from the websites of prominent traders and exporters of Basmati rice, all describing the sub-Himalayan origin of Basmati rice.
c) Even among the food and restaurant industry, Basmati rice occupies a special place as a variety of premium rice both in India and internationally.

(J) Method of Production :

Water Quality and Irrigation:

Basmati rice varieties can be grown following any rice growing agronomy practices in terms of both transplanted or direct seeding technologies in the above defined geographical area for cultivation with irrigation or rain water facilities. Any canal supplied water, rain water or ground water from the defined geographical area for Basmati cultivation can be effectively used for irrigation. These practices prevent drying of the Basmati plant like any other variety of rice.

Where transplanting method is adopted, seeds of Basmati rice are sown in nurseries for further transplantation in the month of June for higher productivity and reducing incidence of blast disease. The sprouted seeds are sown in the evening on a wet seed bed with 5 cm of fresh standing water. The excess water is drained on the second day and is to be irrigated with fresh water the following day. This procedure has to be followed for about a week and after that water level is to be kept constant, but not above the seedling level.

Seedlings of 25-30 days and 5-6 leaf stage are most suitable. The nursery beds have to be irrigated the previous day before uprooting the seedlings so as to minimize root injuries to the seedlings. The uprooted seedlings are washed carefully to remove the mud and are tied in bundles of 100-150 each. The bundles are then carried carefully to the field for transplantation without causing damage to seedlings.

The productivity and quality of Basmati rice is greatly influenced by the time of transplanting. If the traditional tall varieties of Basmati rice are transplanted before 30th of June, they would attain excessive vegetative growth and get prone to lodging at flowering or grain filling stage. Also, early transplantation of seedlings impairs cooking quality as grains become extremely opaque or exhibit abdominal whiteness due to improper development under high temperature caused by loose packing of starch molecules. Hence, the optimum time for

transplanting the seedlings is during the first half of July.

Seedlings are transplanted in rows with 1-2 seedlings per hill. For timely transplanted crop, row to row and plant to plant distance of 20x15 cm and in case of late transplanted crop a spacing of 15x15 cm is maintained. Seedlings should be planted shallow (2 to 3 cm deep) as deep planted take more time for establishment and give less tillering.

Standing water is maintained in paddy fields up to 2-3 weeks after planting, which helps in good plant establishment and weed control. After this period, fields are irrigated only after absorption of water.

In the case of traditional varieties of Basmati rice which are tall, foliage pruning of excessive vegetative growth between 45-55 days after transplanting at about 10 cm from upper most leaf collar is done to reduce the plant height and prevent thereby lodging of the crop without affecting the production.

For maximum paddy yield and head rice recovery, harvesting of the crop is done between 30 to 35 days after flowering, when the moisture content in the grains ranges between 20 and 22 percent. At this stage, all the grains on the panicle turn yellow except one or two lower ones which are still green but fully filled with grain. Drying unthreshed paddy under shade is recommended and practiced by the farmers to minimize broken percentage (head rice recovery) on milling.

Use of fertilizer, herbicide, pesticide and insecticides:

The traditional tall varieties (such as Taraori Basmati and Basmati 386) and the semi-tall Basmati varieties like Pusa Basmati 1121 are prone to lodging and, therefore, need to be provided less nitrogen in the range of 40-50 kg nitrogen / ha compared to 80-100 kg nitrogen / ha in the case of evolved semi-dwarf varieties like Pusa Basmati 1. Further, 55-60 kg phosphorus and about 40 kg potash per hectare is applied. Micronutrient zinc needs to be applied at the rate of 20-25 kg/ ha in the defined geographical area for Basmati cultivation for optimum growth of Basmati rice. However, need-based modifications to the above standards are recommended based on tests of the soil nutrient content in a location. Basmati rice grows best with carbon enriching of the soil through farm yard manure application of 8-10 tons/ ha or green manuring with legumes. While in the new generation Basmati varieties, genetic resistance to biotic stresses (pests and diseases) is incorporated to minimize the use of chemicals and pesticides, the traditional tall and the released evolved Basmati varieties in the past may require periodical field evaluation to assess their pest and disease load and to facilitate technical prescription for the specific chemical or pesticide required. Such specific chemical or pesticide application package of practices can be readily obtained from the State Department of Agriculture, State Agricultural Universities, Krishi Vigyan Kendras and Indian Council of Agricultural Research institutes.

Harvesting and Storage:

Harvesting of the Basmati crop takes place as soon as 90% of the grain matures so as to avoid loss by shattering, lodging and physical damage to the grains. The harvested crop is generally threshed the same day or as soon as possible and dried

to a moisture content of 12-14 % to prevent the development of grain moulds or any other fungal attack or insect damage during storage.

Upon harvest the paddy is dried to 12% grain moisture. Basmati rice is stored for aging which along with pre-soaking in water before cooking adds to grain elongation. Freshly harvested Basmati rice cooks very soft, moist and sticky with thick gruel and swells very little. During storage, grain hardness increases which allows more swelling and good elongation on cooking. Aged Basmati rice with increased volume cooks fluffy, separates better without bursting.

Processing:

The processing of Basmati rice is generally done by modern and state-of-the-art rice mills which carry out cleaning, drying, de-hulling, milling, separating, polishing, grading, sorting and packaging operations. During these operations/ processes, the quality traits of Basmati rice are not altered and remain intact. These mills conform to prescribed national and international standards.

(K) Uniqueness :

There is recorded evidence that the unique characteristics of Basmati rice such as exceptionally long and slender grain and an exquisite aroma are attributable to the agro-climatic conditions prevailing in the specified region as aforesaid. Basmati rice varieties require prolonged sunshine, high humidity, cool weather during grain filling, sufficient water supply and normal soil. These conditions are available only in the aforesaid geographical region of the Indo-Gangetic plain with a relatively cooler climate with day temperature ranging between 25 to 32 degrees Celsius and night temperature ranging between 20 to 22 degrees Celsius during grain filling for maximum retention of aroma in the grains. Consequently, only one crop of Basmati can be grown in a year during the Kharif season. Basmati rice has been grown in this region for centuries and is known to possess its unique characteristics owing to the agro-climatic conditions of the said region as well as the method of harvesting and processing employed by the farmers.

(L) Inspection Body :

❖ ***Domestic***

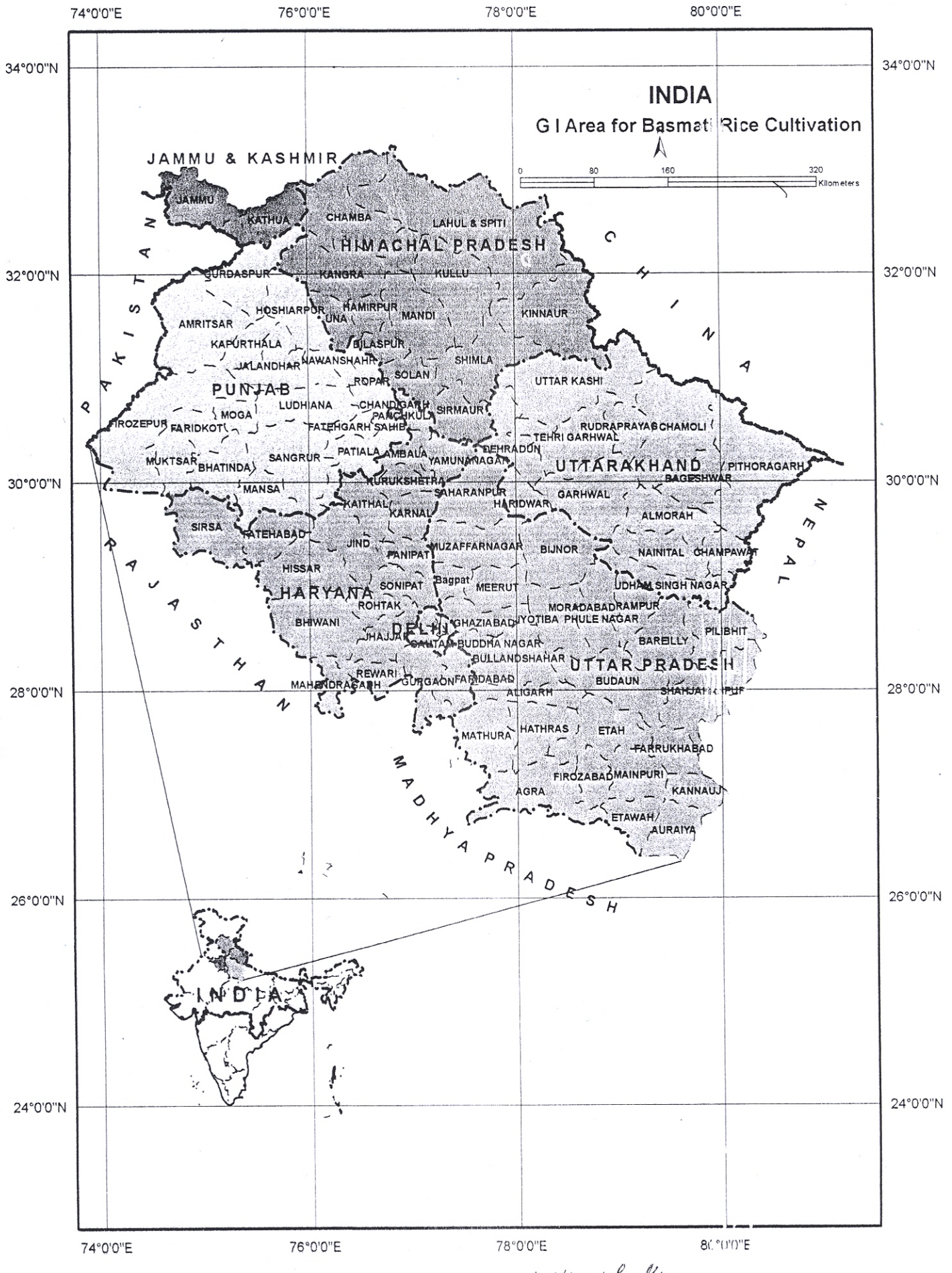
- ***The Basmati Export Development Foundation (BEDF):*** - The BEDF was established with the objective amongst others to undertake the promotion and development of the supply chain of Basmati rice and in particular to promote, develop and co-ordinate integration of activities of diverse stake holders such as consumers, farmers, millers, traders and exporters by bringing focus and objectivity thereto. The BEDF has been promoted by APEDA with a vision for an all-round development of Basmati rice. BEDF is a society registered under the Societies Registration Act, 1860 and in pursuance of its objectives, a Basmati Research Farm and a Lab-cum-Office complex has been set up in Modipuram, Uttar Pradesh to undertake testing and research of Basmati rice. BEDF has established modern world class DNA testing and quality testing laboratory for testing authenticity and purity of Basmati rice. It is a unique integrated facility for

complete testing of Basmati rice under one roof, for exports as well as for the domestic market. This facility is located within the Basmati rice growing region.

- The Ministry of Commerce, vide a circular dated March 31, 2010 has decided to designate the BEDF laboratory, Modipuram as an authorized centre for the testing of samples of Basmati rice for variety identification. As per this circular, the Customs authority may draw rice samples for variety identification and send the same for analysis to BEDF laboratory, in addition to AGMARK testing centres. Accordingly, BEDF is inherently competent to act as body for inspection to ensure that the standards, quality, integrity and consistency/ other unique characteristics of Basmati rice are maintained by the diverse stake holders in the domestic and export markets.

❖ ***Export***

- Vide a notification dated January 23, 2003 issued under the Export (Quality Control and Inspection) Act, 1963, certain minimum characteristics and qualities for Basmati rice have been laid down towards the purposes of inspection of Basmati rice to ensure quality for exports.



K. V. PRABHU
Head
Division of Genetics
Indian Agricultural Research Institute
New Delhi-110012

G.I. APPLICATION NUMBER - 146

Application is made by **Napa Valley Vintners Association (NVV)**, P.O. Box 141, 1475 Library Lane, St. Helena, CA- 94574, United States of America for Registration in Part - A of the Register of **Napa Valley** under Application No.146 in respect of Wines falling in Class – 33, is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act,1999.

Applicant	**:**	Napa Valley Vintners Association
Address	**:**	P.O. Box 141, 1475 Library Lane, St. Helena, CA- 94574, United States of America.
Geographical Indication	**:**	**NAPA VALLEY**
Class	**:**	**33**
Goods	**:**	**Class – 33 -** Wines

(A) **Name of the Applicants** **:** Napa Valley Vintners Association

(B) **Address** **:** P.O. Box 141, 1475 Library Lane,
St. Helena, CA- 94574,
United States of America.

(C) **List of association of persons/ Producers / organization/ authority** **:** To be provided on request

(D) **Type of Goods** **: Class – 33 -** Wines

(E) **Specification** **:**

Napa Valley wines reflect the terroir where the grapes are grown, namely, the Napa Valley American Viticultural Area. The wines are of various types, including white, red, sparkling and dessert. The varieties may include any existing wine grape variety; among the most predominant are cabernet sauvignon, chardonnay, merlot, pinot noir and sauvignon blanc. The grapes must be grown and the wine must be produced in accordance with all local, state and federal laws.

(F) **Name of the Geographical Indication :**

NAPA VALLEY

(G) **Description of Goods:**

Napa Valley wines are produced from grapes grown in the Napa Valley American Viticultural Area (AVA); at least 85% of the fruit in a Napa Valley wine must come from the Napa Valley AVA. The wines derive their uniqueness from the special combination of natural factors, including Mediterranean climate, unifying geography and geology and diverse soils, and human factors, including historical winemaking experience and best practices in grape growing and winemaking. There is an extraordinary diversity of styles of Napa Valley's wines ranging from intensely concentrated and flavored cabernet sauvignons, ripe and fruity pinot noirs and the ever popular spicy zinfandels to rich, creamy chardonnays and botrytis affected dessert wines. These wines can be high in alcohol content, sometimes as high as 16% by volume.

(H) **Geographical Area of Production and Map as shown in page no.** 47**:**

Napa Valley region is located 50 miles north of San Francisco in the State of California in the United States of America. Today, there are over 400 wineries producing Napa Valley wine and over 700 grape growers in the Napa Valley, and due to its quality Napa Valley wine commands a higher price than wine from any other region in the United States.

Geology – Napa Valley has a varied but unique Geology. The Napa Valley was formed by tectonic plate movement and volcanic activity, by alluvial waters and the flooding of San Pablo Bay, which once reached into the valley. The Valley is

bisected by the Napa River, which follows the Valley's tapered contour and dwindles from a fully navigable river in its southern stretches to little more than a creek to its northern beginnings. The Valley's topography changes with its length, from the windswept estuarine flats and gentle hills in the south to the Valley's narrow top at the town of Calistoga, cradled between the sheer walls of the Palisades at the foot of the Mount St Helena to the east and the forested Mayacamas Mountains to the west. The Valley encompasses the land between the Mayacamas Mountain Range on the West and North, and the Vaca Mountain Range on the East.

Soil – The Napa Valley is also unique for the diversity of its soil. Soils of volcanic, maritime and alluvial origin exist, each created by geological events that occurred over the Napa Valley's 60 million year history. Rocky knolls and alluvial fans interrupt the level of expanses of the Valley floor, each bearing testimony to geological occurrences in the past. The area topography supports a wide variety of soils and more than 30 different types have been identified. Ranging from well-drained gravelly loams to moisture retaining salty clays, these soils vary in depth and fertility. The various soil types present in Napa Valley produce grapes that give Napa Valley wine its unique characteristics and contribute to its worldwide reputation as a premium quality product.

Climate – Defined by mountain ranges and influenced by the proximity to the Pacific Ocean, the Napa Valley enjoys a temperate climate perfectly suited to the growing of fine wine grapes. The long growing season is marked by sunny, warm and dry days followed by cool evenings, an ideal combination for allowing grapes to ripen slowly and evenly. Moreover, the difference in conditions along the Valley is dramatic. Calistoga, at the top of the Valley, has a daytime climate hot enough to ripen every known red variety, but at the same time the grapes are saved by the cold air that drains down the high mountains hemming it in on three sides. At the mouth of the Valley is Carneros, continually cooled by fogs and gales, only able to ripen its cool-climate Pinot Noir and Chardonnay grape varieties because of the brief bursts of sun that separate the morning fog from the afternoon wind. As a result of this unique climate and geography, various types of wine grapes of superior quality and reputation are grown in the Napa Valley region and are used to produce some of the world's most highly recognized and critically acclaimed wines.

(I) Proof of Origin (Historical records):

Napa Valley wine region is known around the world as the premium wine-growing region in North America. Napa Valley was originally settled by the Wappo Native American people who called it 'Napa', meaning "land of plenty", a name that was adopted by future settlers of European descent. Napa's first homestead and the first property to plant wine grape vines was established by George Yount in the 1840s.

In 1861, the first wineries were built in Napa Valley, including the Charles Krug winery, which is still in operation today. Following Mr. Krug, there were several others such as Mr. H A Pellet, John Lewelling, Matthew Vann, HW Crabb, General E D Keyes etc who embarked on building wineries in the Napa Valley.

These vineyards were supplemented by a large number of smaller ones, which ranged from five to twenty acres.

By 1875, the wine growing had become so popular that the St. Helena Viticultural Club was organized with a membership of all the prominent winemakers including the ones mentioned above. One of the purposes of establishing the Club was to disseminate knowledge as to the various and best modes of viticulture, the introduction and propagation of choice varieties of grapes etc. There is recorded mention of the Club's role in spreading a great amount of information among grape growers and wine makers of Napa Valley on viticulture.

Further, in 1881, the Napa Viticultural Society was established with almost the same purpose as that of the St. Helena Viticultural Club. The Society met at least once a month and has been recorded as a great source of benefit to the wine-growers of the Napa County.

"Directory of Grape Growers Wine Makers and Distillers" published in 1891 describes in detail the development of viticulture in Napa Valley around that time

By 1889, more than 140 wineries were operating in Napa Valley. That same year, Napa Valley wines were first allowed by the French to enter a wine competition in France at the Paris World's Fair where the Napa Valley wines won twenty medals. In the 1890s, the Napa Valley wine industry suffered a set back when over half of the vineyards in Napa Valley were struck by the grape vine disease phylloxera. This was followed by the prohibition in the United States against alcohol which lasted until 1933. During prohibition, several Napa Valley wineries survived by making religious sacramental wine, which was still permitted. Following the prohibition, the Napa Valley wine industry began its recovery with continuing growth in wine production through the 1940s and 1950s.

In the 1960s, more premium wines were being produced in the Napa Valley and the demand began to outrun supply. Napa Valley also became a tourist destination attracting visitors wishing to tour its wineries and taste Napa Valley wine. The California Land Conservation Act, better known as the Williamson Act, which promotes agricultural use of land in California, was passed in 1966 and adopted by Napa County in 1969. As a result of the Williamson Act, as of 2005, Napa County has 69,340 acres of land protected exclusively for agricultural use.

The Global Encyclopedia of Wine published by Gordon Cheers, describes the history and location of the wine industry in the Napa Valley region of California.

(J) Method of Production:

Harvesting – Grapes are often extended ripening time in order to maximize the Brix (the level of sugar content in the wine) level of the grapes and produce a wine with fully ripe flavors. Grapes in the Napa Valley are harvested primarily by hand to prevent damage to the grapes, maximize quality selection and minimize the time between harvest and crush. Harvest is conducted in the pre-dawn hours when the grapes are cool and less prone to damage or spikes in the sugar content which can occur during the hot daytime hours. During harvest, the grapes are

picked around the clock, seven days a week and the valley air is redolent of newly fermenting wines. As harvest ends, the grape leaves turn shades of brown, red and yellow.

Process of Production - During production, winemakers of Napa Valley use their own experience and the historical experience of others to maximize and enhance the flavors of Napa Valley grape juice to produce wines of superior quality. The wine shall be made and finished in the State of California and produced at least 85% from wine grapes grown in the Napa Valley viticultural area. All winemakers must work within general wine production parameters, but are allowed a good deal of leeway in production in order to maximize the quality of the wines they create.

❖ These general production parameters are as follows:

- At the start of fermentation, no material may be added except water, concentrated grape juice, malolactic bacteria, yeast or yeast cultures grown in grape juice, and yeast foods, sterilizing agents, precipitating agents or other approved fermentation adjuncts.

- Water may be used to facilitate fermentation but addition of water shall not result in reducing the density of the grape juice below 22 degrees Brix.

- When the grape juice has low sugar content, pure dry sugar or concentrated grape juice may be added before or during fermentation to develop alcohol.

- In producing wine from grape juice having a fixed acid level exceeding 5.0 grams per liter, the winemaker may adjust the fixed acid level by adding ameliorating material (water, sugar, or a combination of both) before, during and after fermentation. However, such amelioration may only take place at the premises where the wine is produced, the amelioration material added to the grape juice or the wine may not reduce the fixed acid or the wine may not reduce the fixed acid level of the ameliorated juice or wine to less than 5.0 grams per liter, and the volume of ameliorating material added to juice or wine may not exceed 35 percent of the total volume of ameliorated juice or wine.

- Any natural grape wine of a winemaker's own production may have sugar added after melioration and fermentation provided the finished wine does not exceed 17 percent total solids by weight if the alcohol content is more than 14 percent by volume or 21 percent total solids by weight if the alcohol content is not more than 14 percent by volume.

- Tartaric acid or malic acid, or a combination of tartaric acid and malic acid, may be added prior to or during fermentation, to grapes or juice from grapes.

- In addition, after fermentation is completed, citric acid, fumaric acid, malic acid, lactic acid or tartaric acid, or a combination of two or more of these acids, may be added to correct natural deficiencies.

- In the cellar treatment of wine of the winemaker's own production, there may be added volatile fruit-flavor concentrate produced from the same variety of grape so long as the proportion of volatile fruit-flavor concentrate added to the wine does not exceed the equivalent proportion of the volatile fruit-flavor concentrate of the original juice or must from which the wine was produced.

- Effervescent wine may be made on the same premises where the wine is produced. The use of carbon dioxide, nitrogen gas, or a combination of both, is permitted to maintain counter pressure during the transfer and bottling of sparkling wine.

- Sparkling wine, artificially carbonated wine, and any wine used as a base in the production of sparkling wine or artificially carbonated wine, may not have alcohol content in excess of 14 percent by volume.

- Wine will be stored in tanks, casks, barrels, cased or uncased bottles, or in any other suitable container, which will not contaminate the wine.

- Inert fibers, pulps, earths, or similar materials, may be used as filtering aids in the cellar treatment and finishing of wine.

- Material used in the process of filtering, clarifying, or purifying wine may remove cloudiness, precipitation, and undesirable odors and flavors.

***Ageing* –** Typically, red wine, such as Cabernet Sauvignon, is aged 18 months in barrel and 18 months in bottle before release. Some white wine, such as Chardonnay, is typically aged 18 months in barrel and 6 months in bottle, while other white wine, such as Sauvignon Blanc, is aged for 4-6 months in barrel or stainless steel tanks and promptly bottled and released.

(K) Uniqueness:

The natural and human factors contributing to Napa Valley Wine are:

Natural factors:

The combination of Mediterranean climate, geography and geology of the region are conductive to growing quality wine grapes. Several microclimates exist within the area due to various weather and geographical influences. The open southern end of the valley floor is cooler during the growing season due to the proximity of San Pablo Bay while the sheltered, closed northern end is often much warmer. The valley floor is flanked by the Mayacamas Mountain Range on the western and northern sides while the Vaca Mountain Range is on the eastern side. Several smaller valleys also exist within these two ranges. The floor of the main valley gradually rises from sea level at the southern end to 362 feet above sea level at the

northern end in Calistoga at the foot of Mount Saint Helena. The eastern side of the valley tends to be more arid due to the fact that winter storms tend to drop much more precipitation on the western mountains and hills. The soil in the southern end of the valley consists mainly of sediments deposited by earlier advances and retreats of San Pablo Bay while the soil at the northern end of the valley contains a large volume of volcanic lava and ash. Several of the small hills that emerge from the middle of the valley floor near Yountville are indicators of the region's volcanic past.

The rare flavor of the Napa Valley wine is a result of a combination of extremities in temperatures, unique to the Napa Valley Region. During the growing season, daytime temperatures are quite warm, often reaching into the 30 degree Celsius range, while evening temperatures cool into the 15 degree Celsius range due to the influence of evening marine layer fog. As a result, this allows grapes to ripen slowly and evenly and achieve superior quality, thereby giving Napa Valley wines their superior taste.

Human Factors:

The Napa Valley region is renowned for the extraordinary diversity of wine styles ranging from intensely concentrated and flavored cabernet sauvignons, ripe and fruity pinot noirs and the ever popular spicy zinfandels to rich creamy chardonnays and even sauternes style botrytis affected dessert wines. These wines are very high in their alcohol content, sometimes as much as 16 per cent or more. During spring the vines begin to push out new leaves and tiny grape clusters amid a backdrop of blooming trees and flowers. By summer, the vines carpet the valley floor and are weighed down with grapes and covered by thick leaf canopies. By fall, the grapes are ripe and sweet, ready to be picked and crushed.

During the growing season, the substance most commonly applied on the vines is sulfur, which is an organic fungicide. The use and application of sulfur has resulted in the reduction of pesticides by 10% and non-sulfur pesticide by 40% in the Napa County.

Maintenance – During the growing season, vineyard crews thin out new shoot growth to yield optimum fruit during harvest. The ground between the vineyard rows is mowed to prevent the growth of grass which traps cold air near the vines inhibiting growth. Leaves are removed from vines to provide maximum sun exposure for the grapes and remove mildew and rot. In August, the fruit on the vines is thinned to enhance the varietals character of the remaining grapes.

Due to the unique and complex combination of agro-climatic conditions prevailing in the region comprising the said vineyards within the Napa Valley region and the production regulations imposed pursuant to the U.S. Laws described above, wine produced in the Napa Valley region has won the patronage and recognition of discerning consumers not only in the United States, but also all over the world. Consequently, the wine produced in the said region is and has for long been known to the trade and the public in the United States and world over as Napa Valley wine and as such it has acquired substantial domestic and international reputation. Any member of the trade or public ordering Napa Valley

wine or seeing wine advertised or offered for sale as being from Napa Valley will expect the wine so ordered, advertised or offered for sale to be the wine produced in the aforesaid region of Napa Valley in California and be of superior quality.

It is pertinent to note here that Napa Valley wine has been recognized in the "List of quality wines produced in specific regions" published pursuant to Article 54 (4) of European Council Regulation (EC) No. 1493/1999. Further, NVV has successfully sued and injuncted third parties from using the geographical indication on wines not originating from Napa Valley.

Consequently, while the name "Napa Valley" is purely descriptive of the said region of the State of California in the United States of America, it has acquired a special uniqueness, reputation and goodwill in the public mind when used in relation to wines produced therein so that the right to attach it to such wine forms part of the goodwill of all those who are duly associated with the said region. In other words, the name "Napa Valley" when used in relation to wine, where not less than 85% of the wine is derived from grapes grown within the boundaries of the identified viticultural area and is finished within the said area, qualifies as a geographical indication. The NVV is accordingly making this application for registration of "Napa Valley" as a geographical indication in India in respect of the said wines so produced.

(L) Inspection Body :

NVV already has inspection and quality control mechanisms in place to ensure that the quality of the wines under the geographical indication Napa Valley is consistent with consumer expectations and the production regulations imposed pursuant to the U.S. Laws described above, wine produced in the Napa Valley region

The Code of Federal Regulation, in force in the United States, defines the right and general conditions for vintners to use the designation "American Viticultural Area" (AVA) which is treated as a geographical indication. Some of these conditions are as follows:

1. Title 27 of the U.S. Code of Federal Regulation, Section 9.3, authorizes the U.S. Department of the Treasury, Alcohol Tobacco Tax and Trade Bureau ("TTB") [formerly known as the Bureau of Alcohol Tobacco and Firearms (BATF)] to establish AVAs. As provided in the Regulation, in order for an AVA to be established, the applicant must provide information related to the name and renown of the viticultural area, evidence of the boundaries for the viticultural area, and evidence of the unique geographical features of the viticultural areas.

2. Title 27 of the U.S. Code of Federal Regulation Section 4.25(e) requires that an AVA may only be used on wine when not less than 85% of the wine is derived from grapes grown within the boundaries of the identified viticultural area and the wine is finished within the state in which the AVA is located.

3. Title 27 of the U.S. Code of Federal Regulation Section 9.23 recognizes "Napa Valley" as an AVA. Thus, the geographical indication Napa Valley may be used on wine derived 85% or more from grapes grown in the Napa Valley and finished within the State of California.

Further, pursuant to U.S. Law, every wine sold in the U.S. must first obtain a Certificate of Label Approval ("COLA"). The application for COLA requires the following:-

1. A copy of the label to be used on the wine must be submitted to the TTB for examination prior to use.

2. The wine producer must attest under penalty of perjury that the representations on the label as to the origin of any wine carrying an AVA, such as Napa Valley, conform to the requirement that the wine be derived 85% or more from grapes from the AVA and that the wine complies with the Federal winemaking standards.

3. The winery must keep records to support its conformance to the origin and wine making requirements for the wine and the TTB has the authority to inspect such records for compliance and enjoin the sale of wine not in compliance with the origin and wine making requirements.

Further TTB has the following powers and functions in respect of wines made and sold in the United States:

1. TTB maintains a mechanism to insure that all wines sold in the U.S. with the 'Napa Valley' AVA on the label comply with the legal requirements for use of such geographical indication.

2. As for enforcement, the TTB requires that every wine producer keep exacting records as to the source of the wine.

3. Pursuant to Title 27 of the Code of Federal Regulation Section 24.314, any proprietor removing labeled wine from bond in order to sell such wine must keep complete records so that all information stated on the label, including AVA or appellation of origin, can be verified pursuant to a TTB audit.

4. Whenever a party, such as NVV, has reason to believe that a wine is not properly using an AVA, such as Napa Valley, the TTB may be requested to conduct an audit to verify origin of the wine.

5. Pursuant to U.S. Law, the TTB may temporarily seize any product found to violate the AVA composition requirements of federal labeling law and the owner of the wine in violation of the AVA requirements will not be permitted to sell the product until the label correctly identifies the origin of the wine or until the wine properly originates from the AVA identified on the label.

(M) Others :

Napa Valley Vintners Association, of address at P O Box 141, 1475 Library Lane, St. Helena, CA 94574, United States of America, a non-profit trade association, was founded in 1943 as a regional trade group to represent a tradition of dedicated vintners and grape growers who have worked for the Napa Valley region since the early 1800s. NVV is a dynamic trade body dedicated to advancing Napa Valley's wines both in the United States and abroad.

The NVV represents the interests of any person or firm that is a brand owner which annually produces and bottles in Napa County, a Napa Valley Appellation wine. By virtue of the Articles of Incorporation, the NVV is authorized under law to represent the interests of the afore-mentioned persons. The NVV works with the local Napa County Government and the community to improve the quality of life for Napa Valley residents through the promotion of the local wine industry and the Napa Valley appellation.

The NVV is highly committed to ecological and environmental conservation. The NVV actively supports farming practices which are environmentally sensitive, economically viable and socially responsible and has worked with other industry groups and the environmental community to develop standards for vineyard planting and operations, which would qualify for certification through the "Napa Green Program".

The Napa Green Program features the wine industry's most comprehensive "best practices" in land-use and wine production. This voluntary program developed by the NVV is open to all Napa County vintners and grape growers and focuses on building environmentally sound, sustainable practices that meet and exceed more than twenty local, state and federal land or production "best practices" and is certified by an independent third party. Napa County vintners participate in programs focused on winery operations and/or farming practices tailored specifically to each property to meet and exceed environmental compliance and continue to protect and enhance the ecological quality of the region. Under the Napa Green certification program, which is two-pronged, vintners can enroll either in the Winery or in the Land programs.

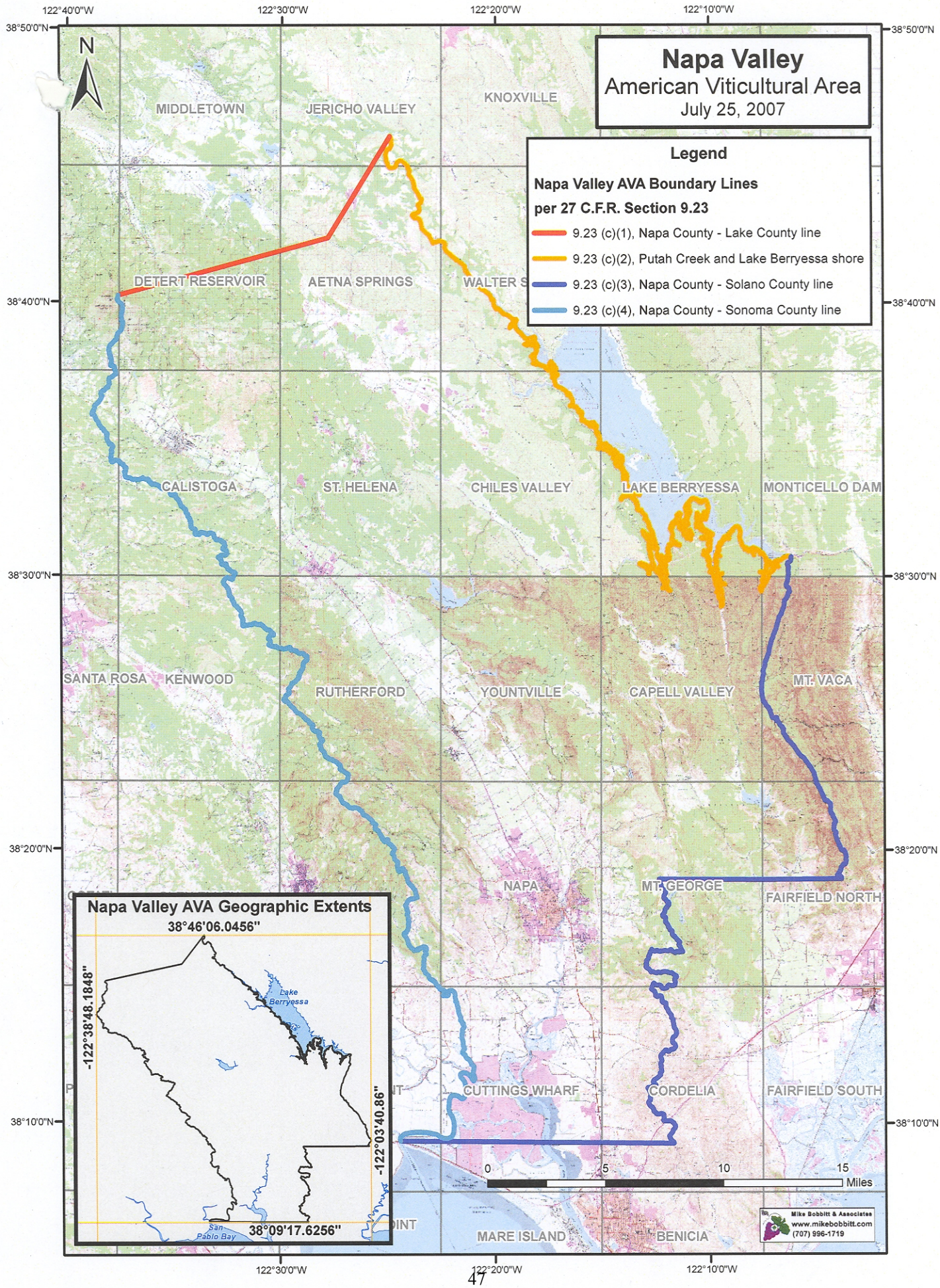
Napa Green Certified Land Program is a third party certified, voluntary program for Napa County vintners and grape growers that seeks to restore, protect and enhance the regional watershed. The program includes not only farmed or vineyard land, but also non-farmed and wild land, roadways, stream banks, drainage and more within a specific property. Plan details are unique to each owner's property and include restoration of wildlife habitat, healthy riparian environments and more with sustainable agriculture practices. Approximately 33,150 acres are currently enrolled in the program and more than 16,900 acres are certified, with thousands more about to receive official certification. A majority (90%) of the Napa River watershed is in private ownership making this public/private partnership, Napa Green, vital to the community.

Founded in 2007, Napa Green Certified Winery Program was developed by the NVV in coordination with the Napa County Department of Environmental

Management (DEM) and is based on the Association of Bay Area Government's (ABAG) Green Business Program as a model due to its consistent, credible and recognized program with a long track record. ABAG's winery-specific checklist was updated and adopted as the certification method for Napa Green Certified Winery because it puts all the regulatory pieces into a comprehensive format that goes beyond compliance. The checklist includes water conservation, energy conservation, pollution prevention, and solid waste reduction elements. Enrollment is offered to a defined number of wineries so that they receive the attention and assistance they need, and so that the DEM can manage inspections and certifications. The ABAG program is set to become the standard for the state. Once the program is complete, the winery is certified by the DEM and ABAG providing independent third party certification.

NVV also supports various educational programs of the Napa Sustainable Winegrowers Group, which is dedicated to promoting sustainable farming practices including natural farming, integrated pest management, pesticide reduction or elimination and, restoration of natural habitats on vineyard properties.

A growing of NVV's members are engaged in organic farming that entails the management of crops through tillage and cultivation practices, crop rotations and cover crops, supplemented with animal and crop waste materials and allowed synthetic materials. As a community, the NVV and its members support the reduction, and whenever possible, the elimination of chemical pesticides and synthetic fertilizers.


Napa Valley
American Viticultural Area
July 25, 2007
Legend
Napa Valley AVA Boundary Lines
per 27 C.F.R. Section 9.23
9.23 (c)(1), Napa County - Lake County line
9.23 (c)(2), Putah Creek and Lake Berryessa shore
9.23 (c)(3), Napa County - Solano County line
9.23 (c)(4), Napa County - Sonoma County line
N
122°40'0"W
122°30'0"W
122°20'0"W
122°10'0"W
38°50'0"N
38°40'0"N
38°30'0"N
38°20'0"N
38°10'0"N
MIDDLETOWN
JERICHO VALLEY
KNOXVILLE
DETERT RESERVOIR
AETNA SPRINGS
WALTER S
CALISTOGA
ST. HELENA
CHILES VALLEY
LAKE BERRYESSA
MONTICELLO DAM
SANTA ROSA
KENWOOD
RUTHERFORD
YOUNTVILLE
CAPELL VALLEY
MT. VACA
NAPA
MT. GEORGE
FAIRFIELD NORTH
CUTTINGS WHARF
CORDELIA
FAIRFIELD SOUTH
MARE ISLAND
BENICIA
Napa Valley AVA Geographic Extents
38°46'06.0456"
-122°38'48.1848"
-122°03'40.86"
38°09'17.6256"
Lake Berryessa
San Pablo Bay
0
5
10
15
Miles
Mike Bobbitt & Associates
www.mikebobbitt.com
(707) 996-1719

G.I. APPLICATION NUMBER - 163

Application is made by **(1) Kerala Agricultural University**, Kerala Agricultural University (P.O), Thrissur District, Pin Code - 680 656, Kerala, India, **(2) Gur Khandasari Industrial Co-operative Society Limited**, Arumanoor P.O., Ayarkunnam (via), Kottayam, Pin Code – 686 568, Kerala, India, **(3) Maddhya Thiruvithamcore Karimpu Vikasana Samithi**, Krishi Bhavan, Thiruvanvandoor, Kallisserry P.O., Chengannur, Alleppey District, Kerala Pin Code – 689 124, India, for Registration in Part-A of the Register of **Central Travancore Jaggery** under Application No.163 in respect of Jaggery (Sarkara) 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.

Applicants	**:**	(1)	Kerala Agricultural University;
		(2)	Gur Khandasari Industrial Co-operative Society Limited;
		(3)	Maddhya Thiruvithamcore Karimpu Vikasana Samithi.
Address	**:**	**(**1)	Kerala Agricultural University, Kerala Agricultural University (P.O), Thrissur District, Pin Code - 680 656, Kerala, India;
		(2)	Gur Khandasari Industrial Co-operative Society Limited, Arumanoor P.O., Ayarkunnam (via), Kottayam, Pin Code – 686 568, Kerala, India;
		(3)	Maddhya Thiruvithamcore Karimpu Vikasana Samithi, Krishi Bhavan, Thiruvanvandoor, Kallisserry P.O., Chengannur, Alleppey District, Kerala Pin Code – 689 124, India.
Geographical Indication	**:**	**CENTRAL TRAVANCORE JAGGERY**	
Class	**:**	**30**	
Goods	**:**	**Class – 30** – Jaggery (Sarkara)	

(A) Name of the Applicants **:** (1) Kerala Agricultural University;

(2) Gur Khandasari Industrial Co-operative Society Limited;

(3) Maddhya Thiruvithamcore Karimpu Vikasana Samithi.

(B) Address **:** (1) Kerala Agricultural University
Kerala Agricultural University (P.O), Thrissur District, Pin Code - 680 656, Kerala, India;

(2) Gur Khandasari Industrial Co-operative Society Limited;
Arumanoor P.O., Ayarkunnam (via), Kottayam, Pin Code – 686 568, Kerala, India;

(3) Maddhya Thiruvithamcore Karimpu Vikasana Samithi,
Krishi Bhavan,
Thiruvanvandoor, Kallisserry P.O., Chengannur, Alleppey District, Pin Code – 689 124, Kerala, India.

(C) List of association of persons/ Producers / organization/ authority **:** To be provided on request

(D) Type of Goods **: Class – 30** Jaggery (Sarkara)

(E) Specification **:**

Central Travancore Jaggery is produced in different forms from sugarcane grown in the riverbanks and nearby places of *Pampa, Manimala, Achenkovil* and *Meenachil* rivers, in Kottayam and Pathanamthitta Districts and Chengannur Taluk in Alappuzha District of Kerala. It is prepared locally by evaporating the sugarcane juice obtained by mechanical crushing of the cane. Quick lime (burnt lime/Calcium oxide) is used in low concentration and some times local plant clarificants (bhindi/okra) are used for lodged/immature canes while boiling to improve the colour and for better crystallization of the product. Even though no preservative is used traditionally, due to high humidity of the area the product is easily degradable by fungal growth and hence preservative in prescribed limit (up to 70 ppm SO_2) can be allowed. The Central Travancore Jaggery is produced in solid, semisolid, liquid or powder form having very sweet taste, flavour and golden brown to brown in colour.

Major forms of Central Travancore Jaggery available in market are '*Pathiyan Sarkara*' and '*Unda Sarkara'*. The semi solid form, *'Pathiyan Sarkara'* (*pathiyan* means malleable) is embedded with sugar crystals having good taste, flavour and golden brown to brown in colour and is stored in 25-30 kg tins. The hand made ball form, known as '*Unda Sarkara'* (*unda* means ball*)* is hard, easy for storage,

has a prolonged shelf life and is golden brown to brown in colour. The liquid form known as '*pani*' (Pani-means having liquid consistency) is being made and used for home purposes only due to its low shelf life. The uniqueness of Central Travancore Jaggery is that it is very sweet, have good taste, appealing colour, adopt organic methods for processing and do not have the salty taste of jaggery produced from sugarcanes cultivated in the alkaline soils and processed using lot of chemicals. Properties of different forms of Central Travancore Jaggery are given below.

Properties of different forms of Central Travancore Jaggery					
Form of Jaggery	**Physical appearance**	**Moisture %**	**Reducing sugar % (d/b)**	**Total sugar % (d/b)**	**Colour**
Unda Sarkara	Solid form as ball / cube	5 - 10	< 10	>85	Golden Brown - Brown
Pathiyan Sarkara	Semi - solid	10 - 15	< 15	>85	Golden Brown – Brown
Pani	Liquid form	25 - 30	< 15	>85	Golden Brown - Brown
Powder	Powder form	4 - 8	< 15	>85	Cream – Pale Brown

The Central Travancore Jaggery is very sweet in taste without any off flavour or salty taste. The total sugar content varies from 85- 92 % and reducing sugar content varies from 3-15 % on dry basis, depending on different forms, storage, conditions of maturity and lodging of cane, incidence of rain etc. The ash percentage varies from 0.8-1.4 percentage. Central Travancore Jaggery is also a mineral supplement with respect to calcium, iron and phosphorus.

(F) Name of Geographical Indication :

CENTRAL TRAVANCORE JAGGERY

(G) Description of Goods :

'Sarkara' is the local name of crude form of sugar. In Sanskrit also crude sugar is referred as "Sarkara' and is produced from sugarcane plant (*Saccharum officinarum*). It is available in market in two forms. The semi solid form known as *'Pathiyan Sarkara'*, is embedded with sugar crystals having good taste, flavour and golden brown to brown in colour and is stored in 25-30 kg tins. The hand made ball form of jaggery known as '*Unda Sarkara'* is hard, easy for storage, has a prolonged shelf life and is golden brown to brown in colour. The liquid form known as *'pani'* is being made and used for home purposes only due to its low shelf life. The uniqueness of this jaggery is that it is very sweet, have good taste, appealing colour and do not have the salty taste (which is present in jaggery from the alkaline soils).

‘Central Travancore Jaggery’ comprises of jaggery prepared from the sugarcane grown in the riverbanks and nearby places of, *Manimala, Pampa, Achenkovil* and *Meenachil* rivers of the old Central Travancore of *Thiruvithamcore Kingdom* (presently Kottayam and Pathanamthitta districts and Chengannur taluk in Alappuzha district) of Kerala. This jaggery is produced by crushing the cane in electric crusher, then evaporating the juice by boiling in open pans made of copper, aluminium or tin on country kilns using the sugarcane trash as the fuel, removing them at different temperatures (striking temperatures) to get different forms, cooling in pans and making them into balls (*Unda)* while hot with hands or transferring it to tins for the semisolid form (*Pathiyan)*. The jaggery produced from the geographical area is having a higher market demand than that produced from elsewhere, since it is very sweet in taste and doesn’t have any salty taste like jaggery from the sugarcane grown in alkaline soils.

The soil of the river banks of the region, where sugarcane is cultivated gets inundated during the South - West and North - East monsoons and hence is rich in organic matter due to the sedimentation of fresh silt from the flood waters once or twice annually. It provides a media for the luxurious growth of the crop which is the most suitable crop for the flood prone situation. The soil type is riverine alluvium and is unique in having low EC, slightly acidic pH and the natural soil enrichment through silting by flood waters. The Central Travancore Jaggery produced from the area is also unique in having very sweet taste and appealing golden brown colour. Moreover, no harmful chemicals are used for getting the appealing colour, except low concentrations of quick lime (burnt lime-Calcium oxide) giving rise to a concentration up to 40 mg percent in the final jaggery product, which can be considered as a nutritional supplement for fortification with respect to calcium (calcium is an essential nutrient for the human bone and teeth formation and maintenance with a requirement of 644 mg/day).

Central Travancore Jaggery is very sweet in taste without any off flavour or salty taste. The total sugar content varies from 85- 92 % and reducing sugar content varies from 3-15 % on dry basis, depending on different forms, storage, conditions of maturity and lodging of cane, incidence of rain etc. The ash percentage varies from 0.8-1.4 percentage. Central Travancore Jaggery is also a mineral supplement with respect to calcium, iron and phosphorus.

The major sugarcane variety of the area is ‘Madhuri’ developed by Sugarcane Research Station, Thiruvalla. This variety is being preferred due to its higher yield, appealing colour, crystalline texture of jaggery and the ratooning efficiency for 3-5 years. The traditional variety ‘Java’, with ability to withstand prolonged periods in inundated fields, is cultivated in some pockets of Kottayam district. The yield of jaggery from this variety is comparatively less though colour and texture are good. This variety also has reasonable ratooning efficiency. The variety ‘Madhumathi’ is also a good jaggery yielder for the plant crop and jaggery is darker in colour than the above two. The farmers share their experience that since the sweetness of the jaggery produced in the region is more, comparatively less quantity of the same is required for preparations compared to jaggery from other sugarcane areas and other states. The reducing sugar content of the Central Travancore Jaggery is high and the ash content is low, which may be the reason for the sweetness and taste. Even though higher content of reducing sugar is not a positive factor for long storage, this together with the low ash content, gives better taste and sweetness to this unique product.

Characteristics of Sugarcane grown in Central Travancore

Variety	***Jaggery Yield t/ha***	***Jaggery recovery %***	***Jaggery quality***	***Ratooning efficiency***
Java	8.0	7.0	Good (golden brown to brown colour)	Reasonable
Madhuri	10.0	10.0	Good (golden brown to brown colour)	High
Madhumathi	10.0	10.0	Good (brown colour)	Low

(H) Geographical Area of Production and Map as shown in page no. 56:

Central Travancore Jaggery is produced in the river banks and nearby places of *Manimala, Pampa, Achenkovil and Meenachil* rivers in the central parts of Travancore coming under Pathanamthitta and Kottayam Districts and Chengannur Taluk of Alappuzha District in Kerala. This includes the 54 Panchayats and 3 municipalities of Pathanamthitta district, the 74 Panchayats and 4 Municipalities of Kottayam district and the 9 Panchayats and One Municipality in Chengannur Taluk of Alappuzha District. All sugarcane farmers of above said Panchayats and municipalities are producers of this GI. The river basins and nearby places of these region are inundated during both the monsoon periods and accumulation of silt occurs during these times and hence has very rich fertility status. The properties of the soils of some major locations of the river banks are as below. The pH is Acidic Ranging from 4.7 – 5.2, EC 0.08 – 0.16 dS/M, Organic Carbon 0.8 – 1.1%, and available Nutrients, Nitrogen 80-150 ppm, Phosphorus 1.5 – 5.5 ppm, Potassium 30 - 90 ppm, Sodium 30 – 65 ppm and Calcium 100- 200 ppm.

During 1936, the river banks of Pampa and its tributaries alone produced sugarcane in 8000 acres of land in Thiruvalla and Pathanamthitta Taluks of Central Travancore and this was solely used for jaggery production. In those days the export of Jaggery from the Travancore State was 1, 13,598 cwts., accounting for Rs 11,35,676/ . Jaggery locally known as '*sarkara*' was one of the major export commodity in those days coming to 1 percent of the total export value of the '*Thiruvithamcore*' Kingdom and also there was a large internal market for the same. After the opening of the 'Pampa Sugar Mills' in 1946 at Thiruvalla by the British Government and also the Mannam Sugar Mills in Pandalam after that (both in Central Travancore), the area of the sugarcane cultivation increased tremendously coming to 8000 ha in the banks of Pampa and its tributaries alone. But due to several problems, the mills were closed and the area reduced drastically. At present the area of sugarcane is less than 500 ha. in the region.

The area of sugarcane cultivation in Central Travancore, coming under Kottayam and Pathanamthitta Districts and Chengannur Taluk of Alappuzha District, is above the MSL and lies between the latitude of 9°4' - 9°52' N and longitude of 76° 21'- 77°18' E.

(I) Proof Of Origin (Historical records) :

The Travancore State Manual (Volume III), published by State Editor, Kerala Gazetteer Department, Government of Kerala, Thiruvananthapuram, (1996 Edn.), (page 630-632) gives an account of the sugarcane cultivation, jaggery production and its export details of *Thiruvithamcore* Kingdom in the early nineties. The value of the jaggery exported from *Thiruvithamcore* during the Malayalam era 1102 – 1111 (1927-1936 AD), ranged from Rs. 2.08 lakhs to Rs.11.36 lakhs and the quantity varied from 33144 cwts. to 113598 cwts. More over it is stated that there was a large market for jaggery within the country and the produce mainly came from Central and North Travancore. Of these also, the major area was confined to the Thiruvalla and Pathanamthitta taluks in Central Travancore, on the river banks of Pampa and its tributaries. Almost the whole of the crop was used for production of jaggery locally known as 'sarkara'. The details of cultivation of sugarcane, varieties used, details of harvest etc are also provided. Jaggery is mentioned as a major export commodity from the area indicating the superior quality of the produce and also its large scale production. Practically every traveller to India over the centuries mentions sugarcane; the Moroccan Ibn Battuta wrote of the sugarcanes of Kerala which excelled every other in the 14th Century.

(J) Method of Production:

❖ *Cultivation Practices:*

The sugarcane, from which jaggery is produced is cultivated, using sugarcane 'Setts' containing 3 buds from the top portions of the cane, either in ridges and furrows or in pits during December- January. The organic manures and chemical fertilizers are applied at recommended dose as nitrogen (N), phosphorus (P) and potassium (K) (NPK at 165: 82.5: 82.5 kg/ha) for sugarcane. The entire phosphorus is applied as basal dose and N and K are top dressed in two equal splits on 45^{th} and 90^{th} day after planting. Partial earthing up is done after 2^{nd} top dressing and the final earthing up is done after south west monsoon and the trash is removed from the canes about 3 months before the harvest.

❖ *Harvesting and Processing:*

The cane is harvested on maturity (10-14 months) by cutting the cane 2-3 cm above the soil. Roots if any, dry leaves and the top portion of the cane are removed. The cleaned cane is then crushed mechanically in an electric 3- roller crusher and the juice obtained is filtered and kept for sedimentation for some time to remove the impurities. The supernatant sugarcane juice is then decanted to remove the sediments, mixed with low concentrations of quick lime solution in water for better crystallization and then evaporated in big jaggery pans over local fire wood furnaces up to specific temperatures (approximately 108 ^{o} C to 122 ^{o} C for the different forms of jaggery). The frothing impurities are removed at the early stages of evaporation. The processed juice is removed to cooling pans made of wood, stainless steel or on to ground lined with marble/ kadappa stone, allowed to cool to get the crystalline texture and packed in tins or earthen pots in semi solid form. For the preparation of *Unda sarkara*, the striking temperature is slightly higher than the semisolid form. The processed juice is transferred to the cooling pans as above to get crystalline texture and shaped into small balls while hot, manually with hand. The same is stored in gunny bags or bags made of Palmyra (*Borassus flabellifer*) leaves in air tight rooms/huge wooden boxes (*Ara*

& *Pathayam*). The sugarcane trash obtained after crushing the cane is utilized as the fire wood for boiling the juice and there is no waste production except the fire ash which can be used for the cultivation of sugarcane. Hence it is an eco-friendly cottage industry. Also there is not much need of transportation of raw material, since the jaggery production sites are near to the sugarcane fields.

(K) Uniqueness :

Central Travancore Jaggery is unique for its very sweet taste, texture and flavour. Traditionally no chemicals, other than low concentrations of quick lime, up to one g/l juice (tied in muslin cloth and kept in juice tank/decanted supernatant - which leads up to 40 mg percent calcium in jaggery) is used in processing and hence is more or less considered as an organic product. The jaggery produced from good mature canes from the area has an appealing golden brown colour and is crystalline. The taste is also very good and sweeter than jaggery from the alkaline soils with no off flavour of salt.

The basic media for preparation of various *Ayurvedic* medicines is jaggery. The Central Travancore Jaggery is preferred for preparation of *Ayurvedic* medicines, for which Kerala is very famous, due to its appealing golden brown colour, higher sweetness and organic nature. Jaggery itself has numerous medicinal properties and is mentioned in the *Ayurvedic* books. It is cooling, diuretic, refreshing and lactogenic, acts as tonic, cardiac tonic, normalizes semen & sperm and improves throat conditions. It is prescribed for use in diseases like anemia, jaundice, cold and cough, breathlessness, kidney problems, rheumatic conditions etc.

For preparation of *Prasadams* of various temples also the Travancore Jaggery is preferred adding to its high market demand. In Chalai market of Thiruvananthapuram (major market of *Thiruvithamcore*), Central Travancore Jaggery is sold at a premium price which is Rs. 3 - 4 / kg higher than jaggery from other places.

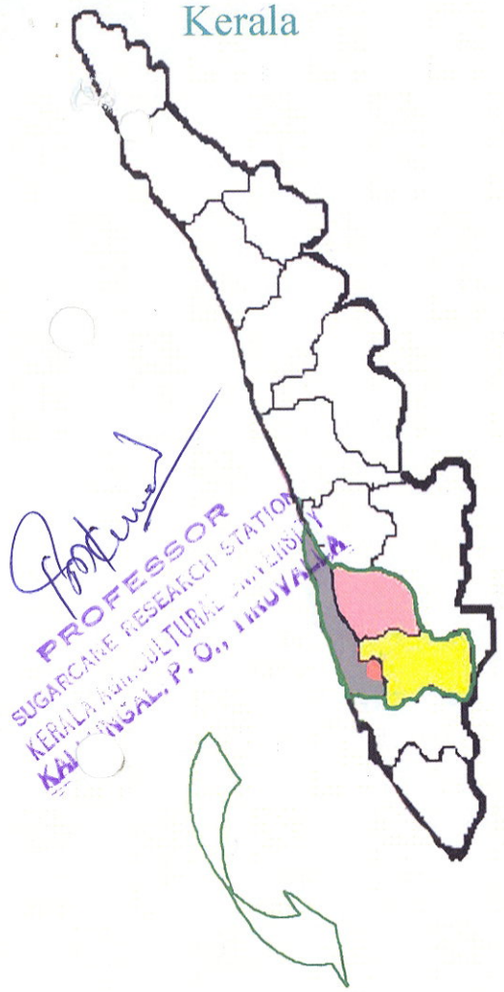
(L) Inspection Body :

Inspection body comprises of the following members:

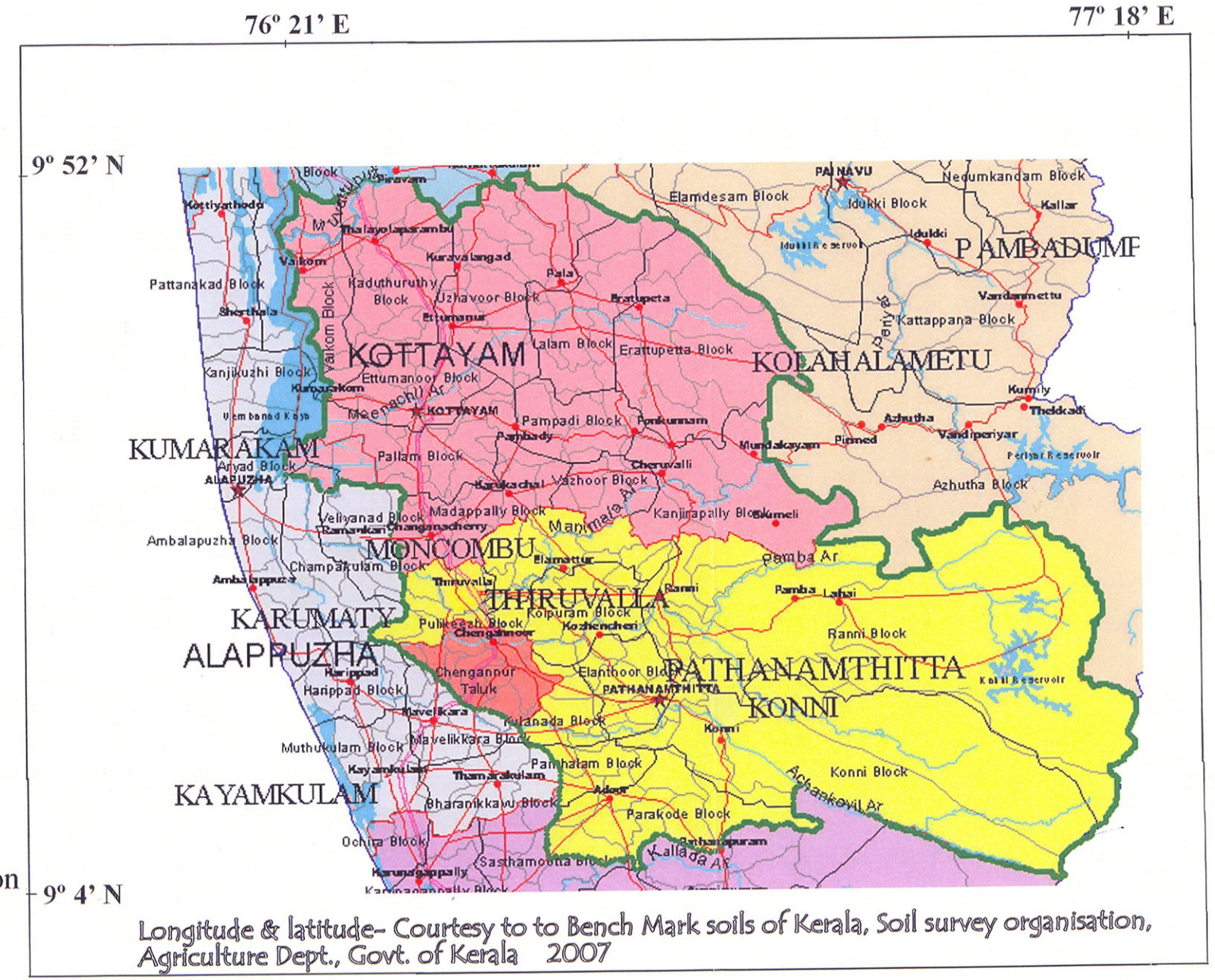
1. Director of Research, Kerala Agricultural University, Trissur
2. Co-ordinator, WTO Centre, Kerala Agricultural University, Trissur
3. Convener, IPR Cell, Kerala Agricultural University, Trissur
4. Professor & Head, Sugarcane Research Station, Thiruvalla
5. Scientist I/c of Jaggery quality analyses, Sugarcane Research Station, Thiruvalla
6. Joint Director of Agriculture, Alleppey (Dist.)
7. President, Maddhya Thiruvithamcore Karimpu Vikasana Samithi,Krishi Bhavan, Thiruvanvandoor, Kallisserry P.O., Chengannur Alleppey Dist. Kerala Pin Code - 689 124.
8. President, Gur Khandasari Industrial Co-operative Society Ltd. Arumanoor P.O, Ayarkunnam (via) Kottayam, Kerala Pin 686 568.
9. Agricultural Officer, Thiruvanvandoor Krishi Bhavan, Kallissery P.O., Chengannur, Alappuzha, Kerala 689 124.
10. Two (2) farmer's representatives from the Central Travancore Jaggery producing Area.

(M) Other:

Jaggery has gathered a special interest as a natural sweetener due to its higher nutritional status with respect to the vital minerals, calcium, phosphorus and iron. Reducing sugars are also present in jaggery, which give more sweetness to jaggery. Preference for purified food items with various chemical processes is diminishing recently, and people go for natural and crude form of food prepared hygienically. Moreover in the world market, quality products produced from specified localities have higher demand. Hence, due to the better taste and flavour and sweetness, jaggery prepared from this area, which was a major centre for jaggery production and trade in the past, definitely will be having immense scope in the world market also.



Central Travancore Jaggery - Cultivation tracts



- Pathanamthitta Dist.
- Kottayam Dist.
- Chengannur Taluk
- Water Bodies
- Sugarcane Cultivation Tract

Longitude & latitude- Courtesy to to Bench Mark soils of Kerala, Soil survey organisation, Agriculture Dept., Govt. of Kerala 2007

Kerala Map (not to scale)

Source: Centre for Land resourse Research and Management, Kerala Agricultural University, KAU, P.O. Trissur

G.I. APPLICATION NUMBER - 172

Application is made by **Champa Raigarh Hathkargha Kosa Bunkar Kalyan Samiti,** C.48, Sector-I, Madhya Pradesh Grih Nirman M. Colony, Shankar Nagar, Tahsil – Raipur, District – Raipur, Chhattisgarh, India, for Registration in Part - A of the Register of **Champa Silk Saree and Fabrics** under Application No.172 in respect of Yarns and threads, for textile use falling in Class – 23, Textile and Textile Goods, not included in other Classes; bed and table covers falling in Class – 24, Clothing falling in Class – 25 and Embroidery Sarees 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.

Applicant	**:**	Champa Raigarh Hathkargha Kosa Bunkar Kalyan Samiti.
Address	**:**	Champa Raigarh Hathkargha Kosa Bunkar Kalyan Samiti, C.48, Sector-I, Madhya Pradesh Grih Nirman M. Colony, Shankar Nagar, Tahsil – Raipur, District – Raipur, Chhattisgarh, India
Geographical Indication	**:**	**CHAMPA SILK SAREE AND FABRICS**
Class	**:**	**23, 24, 25 & 26**
Goods	**:**	**Class – 23** Yarns and threads, for textile use**;** **Class – 24** Textile and Textile Goods, not included in other Classes; bed and table covers; **Class – 25** Clothing; and **Class – 26** Embroidery Sarees.

(A) Name of the Applicant : Champa Raigarh Hathkargha Kosa Bunkar Kalyan Samiti.

(B) Address : Champa Raigarh Hathkargha Kosa Bunkar Kalyan Samiti, C.48, Sector-I, Madhya Pradesh Grih Nirman M. Colony, Shankar Nagar, Tahsil – Raipur, District – Raipur, Chhattisgarh, India.

(C) List of association of persons/ Producers / organization/ authority : To be provided on request

(D) Type of Goods : **Class – 23** Yarns and threads, for textile use**;**

Class – 24 Textile and Textile Goods, not included in other Classes; bed and table covers;

Class – 25 Clothing, and

Class – 26 Embroidery Sarees

(E) Specification :

Product Name	Length & Width	Ends per inch	Picks per Inch	Count of Wrap & Weft	Ground Weave	Border weave	Body	Technique used
Kosa Silk Phera Saree	6.00 yards + 1.00 yards Blouse x 1.22 cm	72 to 76	66 to 68	**Wrap-**8 ply[6 to 10 cocoons (thigh reeled yarn)] **Weft-**8 to 10 cocoons yarn	Plain weave	Plain-two shuttle for both side borders	Plain weave-one shuttle weave, Natural colour body & contrast border	----
Kosa silk Plain with Extra Wrap saree / Dhoti	6.10 meters x 122 cms	72 to 76	68 to 72	Kosa silk 8 ply	Plain Weave	Dobby Design	Plain Colour	----
Kosa Silk Plain with Extra Embroidery Work Saree	6.10 meters x 122 cms	72 to 76	72 to 76	Kosa Silk 8 ply	Plain	No border	Natural Kosa silk colour	----

Kosa silk saree with extra weft stripe fancy saree	5.33 meters x 122 cms	72 to 76	72 to 74	Kosa silk 8 ply	Plain	Extra wrap design with the help of lattice dobby	Plain and demin	----
Tie & Dye Dupatta/ Dress Material	1.80 meters x 60 to 90 cms	34	26	**Wrap-** 2/40s Cotton, **Weft -** 40s Cotton	Plain	No border	----	----
Kosa Silk Phera Dress material	15 to 20 meters x 122 cms	72 to 76	60 to 68	Kosa silk 8 Ply	Plain - one shuttle	Plain- two shuttle one each side border	-----	Phera weaving using three shuttles.
Kosa silk Extra weft Fancy dress material	15 to 20 meters x 122 cms	72 to 76	64 to 68	**Wrap-** Weft-Kosa silk 8 Ply **Weft-**Kosa silk 8 Ply & fancy yarn	Plain- one shuttle	----	----	Extra weft fancy yarn is used. Also extra weft style of designs are produced with the help of patia technique & jala technique
Kosa Silk Extra Weft Dress Material	15 to 20 meters x 122 cms	72 to 76	68 to 72	**Wrap-**Kosa silk 8 Ply **Weft-**Body Kosa silk 8 ply & cotton or Art silk are used for extra weft	Plain- one shuttle	----	----	Extra weft yarn is used and designs are produced with jala technique and patia technique.
Kosa Silk Fancy Check Butta Dress Material	15 to 20 meters x 122 cms	72 to 76	68 to 78	**Wrap-** Kosa silk 8 Ply **Weft-**Body Kosa silk 8 ply & different coloured yarns are for weft &	Plain-as many shuttles as no. of colours	----	----	Extra wrap design is with the help of dobby technique & extra weft designs is with the

				extra weft				help of jala and patia technique.
Kosa silk Furnishing Fabrics	15 to 20 meters x 122 cms	As per the thickness of yarn	As per the thickness of yarn	**Wrap-** Fancy payal yarn Weft-Fancy crepe yarn	Twill	----	----	Multi treadle are used to get twill designs and vertical dobby.
Kosa silk Furnishing/ floor covering fabrics	15 to 20 meters x 122 cms	As per the thickness of yarn	As per the thickness of yarn	**Weft-** any diameter of yarn	Any basic weave	----	----	Hand spun/lea yarn are used as weft to produce thicker effect.
Kosa silk Shawl	2.25 meters x 100 cms	72 to 76	70 to 74	**Wrap-** 38 to 42 (Kosa silk coarser yarn) **Weft**-8 to 10 cocoons yarn (Thigh reeled)	Gheecha, Katia, Nassi	----	----	Dobby or jala systems is used to produce figuring pattern.
Kosa Silk Printed Shawl	2.25 meters x 100 cms	72 to 74	70 to 74	**Wrap-** 8cocoons **Weft-** 8cocoons	Plain	-----	-----	Printing (Block and Screen) work is done on the fabric.
Kosa silk Self design shawl	2.25 meters x 100 cms	72 to 76	40 to 44	**Wrap-** 8 cocoons, thigh reeled yarn **Weft-** Spun Kosa silk, Gheecha	Plain weave	----	----	Design effect is produced with the help of multi-treadle/dobby mechanism
Kosa silk Natural Shawl	2.25 meters x 100 cms	72 to 76	44 to 48	**Wrap**-8 cocoons, **Weft-** Gheecha, Nassi, and Katia	Plain weave			Design effect is produced with the help of multi – treadle / dobby mechanism

(F) Name of the Geographical Indication :

CHAMPA SILK SAREE AND FABRICS

(G) Description of Goods :

Champa Silk Saree and Fabrics includes both the Kosa Tussar culture and Kosa Tussar weaving stitches which is popular since generation to generation in Chhattisgarh region.

A few varieties of Champa Silk Saree and Fabrics products are :

i. Kosa silk plain. Saree;
ii. Kosa silk sarees with Extra Warp border and Extra Weft designs made of pure Kosa silk either with natural colours or with different dyed materials.
iii. Kosa silk Sarees with Pallow heading, using with additional attachments namely, dobby, jacquard and jala Systems.
iv. Kosa silk sarees with the embroidery works
v. Kosa silk dyed sarees with or without extra warp and extra weft designs.
vi. Kosa silk dress materials made of the natural colours.
vii. Kosa silk dyed dress materials
viii. Kosa silk printed dress materials
ix. Kosa silk woven designs with or without the help of the dobby, jacquard, and jala techniques.
x. Kosa silk shawl.

(H) Geographical Area of Production and Map as shown in page no. 74**:**

The belt between **Raigarh**, with **Janjgir - Champa** in Chhattisgarh region as its centre, lays progressively great emphasis on Champa Silk Saree and Fabrics production.

(I) Proof of Origin (Historical records) :

❖ ***Vedic era-***

The tradition including both the Kosa Tussar culture and Kosa Tussar weaving stitches in Chhattisgarh is from time immemorial. Taking the help of philology the references of the Sanskrit word “Kauceya” made in Ramayana and Mahabharata may be taken as the origin of the word ‘Kosa’

- The Kosa culture is as old as Vedic era the inception of the Kosa culture is to be believed from the famous stories of the Devangans.

In the beginning there was nothing, neither the sun nor the moon or any of the gods. There was only mother Durga. It was she who later gave birth to Brahma, Vishnu and Mahesh. She was naked and gods born of her spoke thus, "As you are our mother, it is not becoming for us to see you uncovered." She listened to them and acknowledged their concern. A few days later when she went for bath in the great pond, from dirt of her body, she made the first man and brought him life.

Then she called Vedram Devangan and told him, "Prepare your self to cloth me." With hands of prayer he answered, "Mother, you have created and named me Devangan. What instrument do I have?" Then she showed him how to draw the fibre from lotus stalk growing in the pond and with it a weave a garment for her.

The first Devangan she had created was half man and half woman. The woman was therefore called Devangan.

While he removed fibre from stem, 'she' spun into yarn. Meanwhile Devi called Vishwakarma and said "Vishwakarma, make from the bones of this Maikasur Danav (Whom she had killed earlier) the instruments that shall be required for weaving." Thus from the buffalo horns made the first shuttle. From Maikasur's hair was made the brush used for sizing the yarn, from his ribs the parallel bars that hold the warp apart and so on, till every little bone was put to good use. And thus the making of the Devi's first Patar or Sari could now begin. It had no Borders or Pallav. It was a simple garment.

Then Devi made a Phal or fruit that later became Kosa cocoon into which she breathed life. Since then, those of Devangan who worked with Kosa have become to known as "KOSTHAS'.

As the Kostha community grew in numbers, they called large gathering. In those days nobody was educated, the spoken word had its own weight and they were now going choose their own Mukhia or respected spokesman. In those days the elected spokesmen called as Mehers.

At first Dewangans, then Koshtas and then Mehers, some time they call us by any one of the names. The Pankas, Julahas, and others are separate – they learnt by watching them to weave. None of them can do Kosa work as well as the Koshtas who have the blessings of the Devi.

Later Vedic (Ramayana and Mahabharta)-

When Ravan had carried Sitaji away and Ram Lakshman had been searching for many, many days in the forest, they came upon a small gathering of Dewangans trying to repair lengths of sized yarn early in the morning Ramchandraji, observed with the loss of Sita, came and asked them "Did you see my Sita, go this way". What can one say Maharaj, we saw her shooting past in this strange vehicle. It so distracted us that we broke the threads we were preparing. We are ruined Maharaj."

Ramchandarji asked, "What caste are you?" We are Dewangans Maharaj and we are ruined today." He replied, "Be at peace. I bless you. Wherever you will join

the threads with ash and water and twist it so between your fingers, it shall never break again".
"Since then we have joined the broken threads this way but the water has slowly been replaced by spit. You don't need to remember to keep it always handy and there's no shortage of it either."

- With the reference made in the folk stories, people relate Chhattisgarh with the period of Ramayana and Mahabharata.

❖ ***Buddha and Jain period -***

A number of sculptures of Buddha and Jain period can easily be seen scattered over this region with the **essence of the Kosa designs**. Temples relating to Shaiva, Shakti and Vaishnava cultures are also available. In the sixth century the Survansh captured the South Koshal. Its capital Sharabhpur could not be traced in the history even today, but by various coins found in Raipur district, it is logically concluded that this capital was some where in the area of present Raipur district, which was later on, shifted to Sirpur which was called Shripur in those days. After the Sharbhpur dynasty, Pandu dynasty took over South Koshal.

❖ ***Mughal Era-***

- The Kosa silk culture was taken the new shape during the Mughal Era when it was stated as pious cloth during the weddings in the tribes. The Jahangir Eras is also act as catalyst for this Kosa silk culture.

❖ ***Pre and Post Independence Era-***

- There has been a persistent support to the industry by the Government, the earliest one being the tariff protection to the industry in 1934. Creation of Central Silk Board in 1949 gave a fresh chance for the development of the industry. Many other apex organizations have been established to fully utilize the potentiality of the industry. Thought in the **First Five Year Plan** sericulture was merely included under a group of 'other village industries.' In Second Five Year Plan and onwards. It has been assigned a distinct place with other cottage industries. The programmes for sericulture have been directed towards reduction in the cost of production, creation of a suitable marketing organization, and increase in exports.
- 5806 looms are established in Raigarh and Janjgir-Champa District, where these handlooms are engaged mainly on the production of Kosa silk Products i.e., Champa Silk Saree and Fabrics. That is about 24.50% of handlooms are established in these two districts of the state. The weavers concentrated on all over the Chhattisgarh State. As on July 2007, 23,684 handlooms are established in the Chhattisgarh State. Out of which only 16,153 are working. However Champa Silk Saree and Fabrics are produced mainly in Raigarh and Janjgir-Champa districts.

(J) Method of Production:

The production process of Champa Silk Saree and Fabrics can be broadly divided into two main sectors i.e. the sericulture or the cultivation of cocoons and reeling of yarn; and silk weaving. In the Tussar industry, especially in Chhattisgarh, reeling goes along with weaving, thus leaving the first sector confined to the production of cocoons only

The silk production:

There are four types of silk varieties found in the country namely 1. Eric 2. Munga 3. Kosa silk and 4. Mulberry

While Eric and Munga are predominantly found and used in North East region, Mulberry variety has got predominance and acceptability in South India viz. Andhra Pradesh, Tamil Nadu, Kerala and Karnataka.

The Kosa silk variety is found in Chhattisgarh, Bihar and in some part of Madhya Pradesh.

There are seven varieties of Kosa silk i.e.

(1) Shukinda
(2) Dabha
(3) Jadav Dabha
(4) Ranad
(5) Railly
(6) Lariya
(7) Bhrafvala

The production of cocoons can again be divided in to two parts – (a) silk worm rearing and (b) collection of nature grown cocoons. Tussar rearing is practiced in the tribal areas of Raigarh, Sarguja and Bilaspur districts and the Bhopal-Patnam area of Bastar district. In addition to the four districts of Chhattisgarh tussar rearing is practiced in Mandla district also which belongs to Mahakoshal region of Madhya Pradesh.

The collection of nature grown cocoons by the tribal is confined to Bastar district only and leaving the Bhopal-Patnam area, the entire district has a large Kosa tussar fauna where cocoons are grown by nature in the thick forests.

Railly, Lariya and Barf cocoons are found naturally in the forest collected by the forest dwellers mainly the tribals.

Railly is found in Bastar. Chilpi vally, Kawardha, Mainpur and Nagari are the newly introduced areas for the Railly cocoon. The naturally found cocoons are also of three types. Railly grows naturally on the Sal (Sorea robusta) trees. It produces silk fibre of around 2500 metres. Lariya cocoons which are of smaller size than railly is also found naturally and grows on Sal, Saja (Terminaliya tomentosa) and Ber (plum). These are found in Raipur, Dhamtari, Rajnandgaon, Durg and Bilaspur districts. The length of fibre is around 1500 metres.

The third one is ‘Barf’ cocoons. It is smaller than both the railly and Lariya cocoons. The name ‘Barf’ came into being as the tribal used to sell it in exchange of ‘ice’ or ‘ice-candy’. This species of cocoon are found in Raipur, Dhamtari, Durg, and Janjgir-Champa districts. The length of fibre is around 1000 metres. It grows on Arujna (Terminaliya Arjuna), Ber and Saja trees. Anterea mylitta is the silk moth that produces these three different kinds of cocoons growing naturally in months of July-August-September months. Mainly it is harvested within two months. The cocoons grow naturally.

Looms

The looms being used now are mostly fly shuttle pit looms though there are some throw shuttle looms in Raigarh, Champa, Sakti and Chandrapur in Bilaspur division and Saraipalli, Bhanwarpur, Kasdol and Basna in Raipur division. The three shuttle technique is to be found in most Kosa silk areas even though it is often used in cotton saris as well. Chandrapur is the biggest kosa weaving village that does not have any cotton weaving at all. As Kosa is high value item, the process of cut-throat competition to capture the market has prevented any co-operative effort from being successful here. Champa and Raigarh are the major centres of weaving and trade.

Traditionally shuttles made of buffalo horn were considered to be the most appropriate for kosa as they were light, smooth and capable of moving with the least friction. Since the Gujar community who made them no longer does this work, these shuttles have been replaced by Sheesham which needs to be handled more carefully, for it is heavier.

In some cases the reeds were still of the original Bhargua grass which is more supple and smooth on the kosa thread than the iron reed which is now replacing it. Here too, the Ghasias or reed maker known as Phani-bandhas have stopped growing or collecting this grass as it is no longer economical for them. Earlier, when a Bharua reed broke, the Phani-bandha was called and though he would never remove the broken reed himself, it was under his direction that the weaver removed it and the Bandha replaced the broken section.

Now a days, Frame loom has been introduced in some places by the weaver's community.

Motifs

The Phera indicates the meaning of 'round'. Phera method of weaving the body of saree and its border weft threads has rounded each other. The body weft threads are not interlacing with border warp threads and vice versa. They are interlaced by rounding each other at the point of body and border following the phera method. The designs are made using the jhala, jacaurd and dobby.

Making Buttas / Butties

The ethnic and tribal culture reflects in buttas and butties in the saree and other products of Kosa. The buttas are designs in the borders of saree along with pallove of the saree. A selected pattern from the buttas and then used in different form of design in the saree is known as butties**.**

❖ **Production Process –**

(i) Procurement of raw materials -

The silk cultivation: The production of cocoons can again be divided in to two parts – (a) silk worm rearing and (b) collection of nature grown cocoons. Tussar rearing is practiced in the tribal areas of Raigarh, Sarguja and Bilaspur districts and the Bhopal-Patnam area of Bastar district. In addition to the four districts of

Chhattisgarh tussar rearing is practiced in Mandla district also which belongs to Mahakoshal region of Madhya Pradesh.

The tribals of Chhattisgarh collects Kosa silk cocoon from Arjun Saal, Saja trees, in the hilly areas and they sell their collected products in the open market. The collection of nature grown cocoons by the tribals is confined to Bastar district only and leaving the Bhopal-Patnam area, the entire district has a large tussar fauna where cocoons are grown by nature in the thick forests.

Gheecha:

Every cocoon contains a worm inside. After a certain period, if the cocoon is not boiled and the worm is killed, then the worm pierces the cocoon and comes out damaging the cocoon. Once the worm is out, getting continuous filament from it is out of question. In this case, such cocoons are boiled with soap solution and yarns are then pulled out from the cocoons. After getting short filaments, several of such filaments are joined and reeled and yarn is made. The yarn made from this process is called Gheecha and it is coarser yarn.

The Gheecha yarn is also called the 'Ahimsa (non violence)' variety and getting good response from the communities like Jains who are ardent believers of non-violence. Unlike the normal process where the cocoon is boiled to kill the worm inside to get continuous filament, in case of Gheecha, the worm is allowed to leave the cocoon. Prior, the weavers would not let allow any cocoon gets damaged by the worm. But as the material prepared in this process got good acceptance and earned a name for it i.e. 'Ahimsa (non violence)', people are now deliberating preparing these materials for the niche customers.

Katiya: After making the yarn from Gheecha process, some quantity of waste material remains in the cocoons. This waste material then cut together into finer pieces and then reeled into yarn. This yarn is called Katiya.

Nassi: Stems of the cocoon which are also formed by the worm using their larvae are boiled in soap water solution and preserved there for 48 hours and then beaten/ crushed with wooden hammer till it becomes soft silk wool. The material then thigh reeled to form the yarn and then the fabric is made. As the quantity of these stems is less and large number of such stems is needed to form a fabric, it is the costliest product. In fact, weavers prepared executive clothing from this material and the unique colour makes it different from other materials.

Shrinkage: Kosa silk/ Kosa silk has got 8-20 percent shrinkage according to the atmospheric condition off the region. This shrinkage quality gives a distinct nature to the Kosa silk that is the fabric made from this material remains warm during winter and cold in summer. Leaving Kosa/Kosa silk, no other silk material gives such a distinct quality.

Golden / Silver Zari thread

The other raw material such as Golden Zari (original / imitated) and Silver Zari are also used in the production of Kosa silk Products in the weaving process. These products are wound on the bobbins. Normally these yarns are procured from Surat and other part of the country. These yarns are used for extra warp figures / extra weft figures or both.

Fancy yarn

Different varieties of fancy yarns are also used in the weaving process. Weaving fancy yarn in the handloom will be easier when compared to the power loom weaving. The introduction of fancy yarn in the fabric will enhance the beauty of fabric as well as increase the market demand for the fabric. An example of the fancy yarn is exhibited in the exhibit no. These fancy yarns are used to produce extra weft figure effect as these yarns could not be used as warp.

Extra warp threads and embroidery threads

Further, other kind of threads is also used to produce extra warp or extra weft figuring pattern. They are art silk or polyester or nylon or cotton threads. These threads are used to produce small figuring patterns.

Natural Dye - Kosa silk

One of the most unique dyeing processes being developed in Raigarh on Kosa silk is using of Natural Dye. Chhattisgarh being having rich natural resources in forms of forest and medicinal plants have come handy for obtaining various natural dyes. But only one limitation of natural dyes is that the colour range is limited to yellow having the highest number of different shades, second colour is grey, red and the most common is black.

The main reason for using natural dye is that is eco-friendly even though of having limited colours. It is used in silk, cotton and wool. These dyes cannot be used in synthetic fibres. The basic feature of the natural colours used is that they are environment friendly and biodegradable. It is not harmful to the skin. The raw materials obtained for collected from forests or cultivated materials. These colours remain permanent and only in rare cases due to lack of maintenance or climatic conditions the colour fades out.

Few entrepreneurs have come up with a solution to the dyers that the raw materials are provided in extract form or in powder form. It is then packed and marketed thus making it easy availability for all.

The market is also on demand of natural colours giving importance to the products. The natural dye commonly used for red colour is 'Aal' tree found in Bastar. The root generates red colour, which is similar to ferrous Sulphate.

The dyeing on yarn depends on the quality of water. The hard water contains Magnesium carbonate that has to be removed to make it soft. Water is first treated in softening plant to reduce the quantity of hardness. Atmospheric conditions prevailing in the region and specific time period of dyeing would also affect the colours on the yarn. If it is coastal region, the light colour would emerge but in Chhattisgarh region it would be in deep colour. Climatic condition prevailing also affects the colour of yarn. Generally the yarn dried in sun after dyeing would have silkier look but reduces the strength of fibre therefore it is generally dried in shade away from sun. The reason cited is that an ultraviolet ray of Sun affects the fibre forcing it to change the colour while in shade the effect is less though it gives lustre to the fabric.

The common materials used for producing natural colours are

1. 'Harshringar' flower to obtain orange colour (There is variation in colour from deeper yellow. It is also called as poor man's yellow colour as it is also used as agent for colouring the food materials. Generally, 'Kesar' is used for getting the orange tinge but it is too costly to afford by the weaver.
2. Jatropha (Ratanjot) to produce some what reddish colour.
3. Majeeshta
4. Kattha powder generally used in betel leaves for consumption.
5. Palash: Palash is a reddish brown colour flower with blackish tinge. It blooms during spring season from February to May of every year. It is also used as natural colour for 'Holi' festival, the festival of colours.
6. Keshula for obtaining yellow colour
7. Marigold (Gendha) Flower is also used for getting yellow shades.
8. Turmeric (Vernacular: Haldi) for yellow colour. It has therapeutic use as it acts as the natural antibiotic.
9. Onion husk
10. Henna (Vernacular: Mehendi):

It is one of the most commonly used natural colours. If added mordant it generates the greatest colours of greenish tinge with variations as per climatic conditions and dyeing requirement. Generally in the state and India the women for making designs on hand and colouring of hair use it commonly. Now it is being used widely as a natural colour. It is a shrub by nature and its leaves produce the colour if converted in paste form or leaves are boiled and concentrated.

1. Annoto Seed (Vernacular name)
2. Harda (Vernacular name)
3. Beheda
4. Tamarind (Vernacular: Imli)
5. Nag Kesar (Vernacular name)
6. Aligirine (obtained in powder form)
7. Babool bark (Vernacular name): It generates pale yellow colour and it is also used as mordant for bringing in colour variations.
8. Beeja wood (vernacular name) and
9. Indigo: Natural blue colour sources

The Mordant used for dyeing natural colours are

1. Harda powder
2. Babool bark
3. Pomegranate skin (Annar ka chilka)

There is a unique technique to get the best of black colour widely used method in the country where natural dye for black colour is developed. The old jaggery is taken in earthen pot. Rusted iron is added to the jaggery kept in the pot. Water is added. The earthen pot is then kept underground after digging a pit. The whole pack is kept for more than one-and-a-half month. This colour is the only colour that is directly applied to the fibre for colouration. It is also known as 'Shahi' colour in Jaipur, Rajasthan.

Using mineral treatment, the natural colours are given various shades. The minerals used are

1. Alum
2. Potassium
3. Bi-carbonates
4. Copper Sulphate
5. Acetic acid
6. Stannous Chloride
7. Tin Chloride and
8. Ferrous Sulphate

Dyeing of natural dyes:

The first process is removal of natural impurities from the Kosa silk fibre. It is necessary to remove the impurities and give better life to the thread. It also helps to dye the fibre as per choice. The soap solution is used and boiled for two-and-a-half hours to three hours. Generally washing soda is used as soap solution.

Bleaching follows it. Bleaching powder is used. For full bleach around 7 gram per litre is used while for half bleach just half of it i.e. 3 grams per litre is used. Hydrogen peroxide treatment is required followed by Hypo chloride.

The colour is added and boiled and fibre (Threads) is added along with mordant. Generally earthen pot or steel vessels is used to avoid any chemical reaction. Generally earthen pots are used for boiling and treatment of Kosa silk Fibre.

The other process where chemicals are used, the thread is boiled in soap solution and boiled. Sodium silicate and soda is added. It is given boil. It is followed by hydrogen peroxide treatment. Generally, for degumming and bleaching the hydrogen peroxide is used. The Hydrogen peroxide is used to get white colour as it removes the yellowish or other colour tinge from Kosa silk. Generally earthen pot is used for the processes.

Another unique feature is removal of impurities in the Kosa silk fibre is by using cow dung. This process is lengthy as it takes time as continuing the same process for three to four times completes the process.

The Acid dyes which penetrates the thread with help of acid and metallic colours that uses medium as acetic acid or sulphuric acid or tartaric acid. These have unlimited number of colours generally used in fibre. These colours can be mixed to give different colours. These are now being used in dyeing process.

Additional to it direct dyes are also available. They are much cheaper and does not cause any harm to the skin. It is also easy to dye the fibres. Generally with it common salt is used as mordant. But the greatest draw back with this colour is that it fades out with passage of time. It is the reason that generally in Kosa it is not applied usually except as per customers demand.

One of the local and lone expert dyers in natural colours, Netram Dewangan of Raigarh is working on medicinal value fabric. As per his statement, based on ayurvedic value of 'Triphala' all the three ingredients have value for different diseases. He is working on the natural dyeing of these three medicinal value colours on the cloth that it affects the whole body. The work is long and experimental but it would be a revolutionary one for the human beings affected by different diseases like cough etc.

After treatment of the dyed yarn
After treatments of dyed yarn is carried out – namely washing, drying, fastness improving treatments if necessary, weighting of silk etc.

(ii) Reeling process - The reeling is normally done with a fixed number of cocoons. As soon as a cocoon is exhausted, the second one is immediately substituted to reel a continuous and uniformly thick yarn. A reeler can reel about 80 cocoons a day (8 hours). During early periods, thy reeling process was adopted. Now a days the reeling of Kosa silk cocoons are carried out mechanically also.Before actual reeling, the three preliminary processes through which the raw material has to pass for the sorting, drying of stifling, and cooking of cocoons. After the harvest, good cocoons are sorted from the bad ones-double, stained, irregular shaped, flossy, urinated cocoons relating to their shape, colour, wrinkle and the shell silk percentage etc. the cocoons vary in colour from white to dark tan. In shape, they may be constricted elliptical, spherical or spindle shaped. In size they may be long or short. The shape and size and the colour depend upon the breed of the larvae and are also influenced by temperature and humidity during the larval period and also with other abnormalities like early formation and late formation etc. another important characteristics is the wrinkle on the cocoons surface. The abnormalities and the wrinkles, make the cocoons unsuitable for reeling. Thus reliability of cocoons, and also the length, size and weight of cocoons filament are the valuable properties considered by the weavers. Unfortunately, there is no set, standard or cocoon gradation system to determine the qualities of the cocoons.

(iii) The Spinning Process:
The spinning process can be divided into three or four operations like
(a) Degumming,
(b) Dressing or Preparatory,
(c) Spinning and
(d) Finishing.

Degumming: Silk waste is boiled in open vats in solution of soap and soda, for 10 to 15 minutes and passed on for fermentation which takes about three days. The purpose is to dissolve and remove the gum contents from the silk waste. This material is then washed and dried. Degumming is normally followed by bleaching and drying.

Dressing: The waste is dressed by beating by wooden hammers so as to make soft cotton like material of the wastes.
Spinning: Spinning is done by a spinning wheel. This mechanized process is so far implemented only in the Government spinning and weaving centers.

Finishing: After spinning, the yarn are steamed, softened and sent either straight for weaving or finishing, i.e. skein lacking. The spun yarn is re-reeled on the hanks and from there silk skeins are prepared.

(iv) Silk Weaving:

Yarn, thus reeled or spun has to pass through many other processes before; it is actually put on the loom for weaving. These preparatory processes are done by the members of the weaver's family. Hired labour is also engaged as and when it is required.
The preparatory processes, for weaving have two ends – warping on one hand and wefting on the other. Warping means arranging of lengthwise yarn or 'tana' and wefting mean preparation of 'breadth-wise' yarn or 'bana'.

Loosening and Unwinding:
Loosening and unwinding are the Primary processes of preparing the warp and weft yarns. Sometimes, yarn reeled on 'natwa' is directly used for warping, and hence does not undergo this process. In case of yarn wound of hanks, unwinding has to be done. Unwinding of hanks is done on natwa or bobbins for warp yarns and on 'aseri' for weft yarn. This work is usually done by women. They may be either the members of the weavers family or the out workers who are paid by weaver from his own wages or sale proceeds, which he gets from weaving.

Preparing Warp Yarns:
Next in the process of warping is arranging of yarn in a specific length, in which the cloth is to be woven. The wooden frame having wooden pegs on two sides of the frame, at a regular distance of about 6" from one another (on each side) is called 'Jatir'. In the cottages of weavers wall or even the floor of the room is used for this purpose. Wooden pegs are fixed on two sides in a frame type manner. The idea is to pass the yarn cries cross, through these pegs from 'natwa' or from 'bobbins' is as to get a bunch of yarns of the specified length head from the frame and then stretched. Normally the sties done length is slightly more than the specified length of the cloth.

Warping:
The most laborious and time consuming processes is warping i.e. sticking the threads with the warp ends. When the yarn is warped on the pegs. It is known as peg warping. In peg warping only one thread is warped at a time. Sticking of threads with the warp ends is done with the help of each and starch. In this region of Chhattisgarh, there is no mill warping, and the traditional method is still followed even in the Government weaving centers. Usually, this is done by male workers i.e. by the weaver himself or by the male members of his family or sometimes, by hired labors also.

Pirn Winding:
Pirn winding is done in case of weft yarns or the breadth wise yarns. After the yarn is loosened and unwound from the hanks, it is rewound on 'asari', a wooden instrument made of bamboo – appointers having a pointed end on one side. From 'asari', the yarn is again rewound on pins, with the help of a spinning wheel (a wooden charka). These pins are the smallest wooden instruments which are called 'Rito' when they are without yarn, and are called 'Randa' after the weft yarn is wound on them. 'Kanda' is fitted in the shuttle to pass through the warp yarns during the course of weaving. This process may be done both by women or men members of the family or hired labour.

Sizing and Weighting:
Sizing is done normally after warping. Sizing is done mainly by male members. Since it requires lot of labour, a weaver has to depend not only on the family labour, but has to take the help of hired labours also. This process is done in a place where the entire piece length can be spread over. For this the weaver uses his own courtyard or 'Bari', and in many cases, where such a big open ground is not available, this process is done in public streets and thorough fares. This has a definite disadvantage, because, apart from obstructing the traffic, the working is interrupted due to excessive heat in summer and due to rains in the monsoon. Usually, this work is done early in the morning, as early as 4 O'clock especially during summer. The whole process takes about 3 to 4 hours. Sizing is done by hand with the help of brushes, specially meant for this purpose. The loss of sericin during reeling can be off set by what is known as 'weighting' or loading, which adds to the volume and weight of raw silk, as also adds to the luster and rustle of silk. In Chhattisgarh, weighting is a compulsory process which is done during the process of sizing, especially for fabrics like 'Korahs', undegummed and unbleached fabrics. The weighting is done with starch normally cooked rice water. This is applied to wet the warp and weft yarn during weaving.

Beaming:
In the cottages of the weavers a usual warp is of one piece length i.e. one sari, or one piece of malmal of 6 yards or safa of 9 yards. On the loom the entire warp is stretched in a strengthened way. In this case, after the weaving is done, the piece has to be removed from the loom and another piece has to be arranged with all the time consuming processes. This means a loss of time and energy and at the same time a rise in coats, due to payment of wages for warping.

Warp Beaming is a modern and improved device for weaving larger piece of cloths. In those cases, where the beaming arrangement is made, instead of a stretched warp, the warp yarn is wound on the wooden beam which is cylindrical in shape and is fixed in front of the loom. The advantage is distinct. A larger number of pieces can be wound at a time.

At present, the warp beams are confined to the Govt. weaving centres and a few master weavers who undertake weaving in their own houses of 'Karkhanas'. Warp beams in general have not been popular due to lack of incentive for capital investment and also due to lack of training of working on these warp beams, since the weavers are accustomed of weaving on stretched warp and feel that warp beams are incapable in the use of beam is that small independent workers can't obtain larger quantity of raw material that is required at a time.

Beeding:
Each loom contains at least one reed and one set of healds. Reed is called 'Fani' or 'Kanghi' in the local terminology. The number of reeds and healds depends upon the thickness of cloth. The thiner the thread, the core will be the number of reeds and healds required. The treads of the sized warp yarn are inserted through the dents of a reed and attached to the cloth beam before actual weaving is undertaken. The process of inserting the threads through the dents of the reed is known as denting process also.

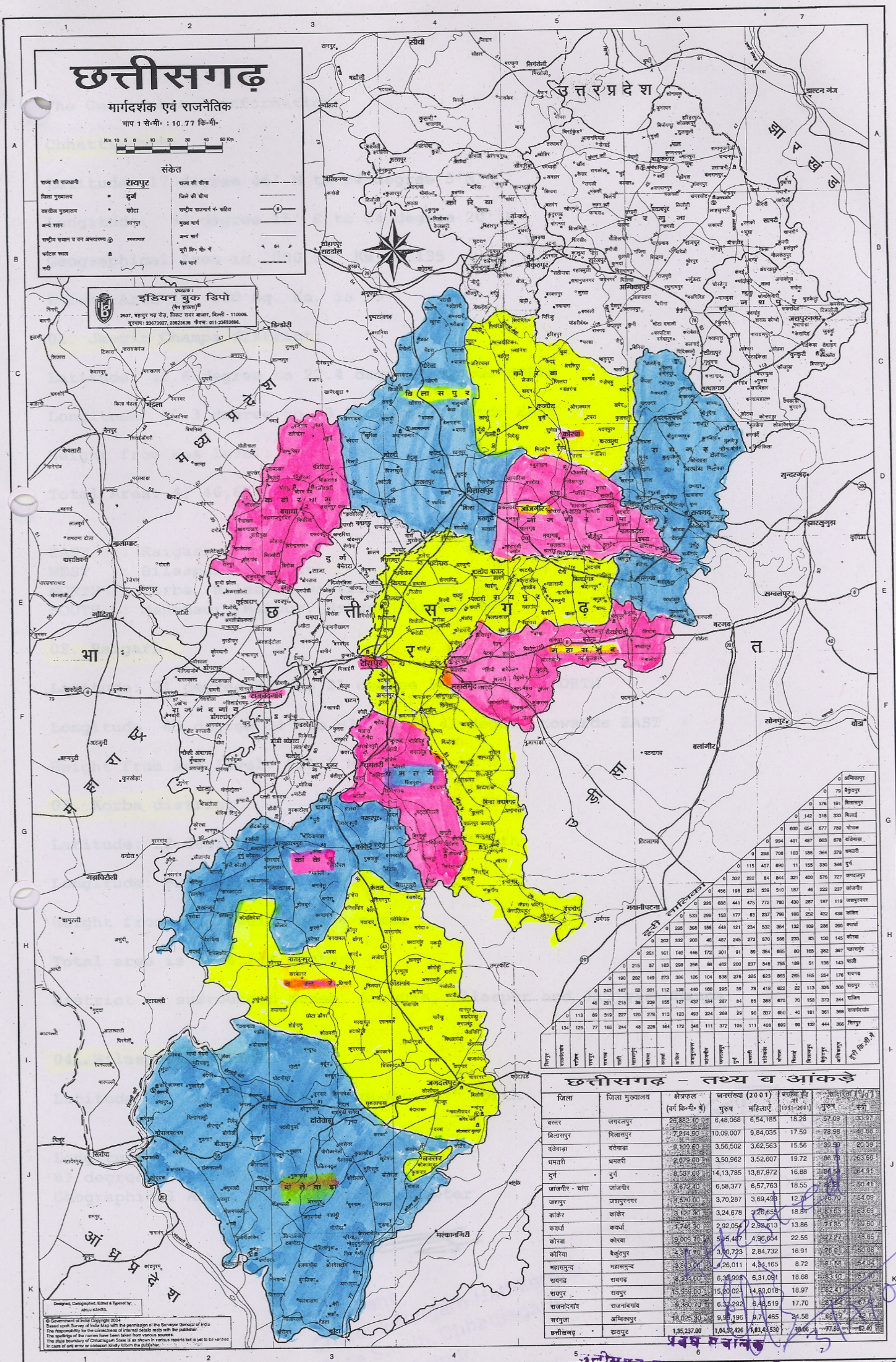
(K) Uniqueness :

- The cocoons are collected from the jungles (forests) by the traditional tribes since hundred of years in a particular manner.
- Lariya cocoons which are of smaller size than railly is also found naturally and grows on Sal, Saja (Terminaliya tomentosa) and Ber (plum). These are found in Raipur and champa region only.
- Traditional tribal designs, temple motifs and religious and spiritual motifs, scene of the forest in the weaving process, festivals, animal and birds motifs and local flora and fauna motifs are very much shown in the weaving and painting in Kosa silk products.
- The ancient temples of Chhattisgarh Danteshwari and Chandrawahni are being instrumental for drawing the inspiration of tribal motifs which are used as wall paintings inside the temples several tribal motifs, jungle scene and dancing pictures are used inside the temples as interior decoration. The essence of these paintings is found in Kosa silk sarees.
- During the weaving it has the appearance of Sagaun tree due to the Brownish colour of the silk
- The weaving style and natural silk are plays the vital role for this allusion.
- The threads which come from Rally cocoons are generally black in colour while others are yellowish or creamish.
- The designs are prepared with the dexterous process of Dobby system& there is also no use of jacquard.
- In the dobby system of weaving only the traditional instruments used are weaving like wooden looms, shuttles of buffalo bones and the asari etc.
- The weaving process of Kosa silk is really unique because the raw silk is wetted under water for strengthening silk threads.
- Natwa silk thread reel used for Tana Bana are kept under water, the Bobin which is used for Bana are also wetted for providing the strength to silk threads.
- The extra warp patterns in the border which are essentially based on the Rui phool or cotton flower, its variations and mutations such as the Karn phool, Crown phool and the Jai phool.
- Champa Silk Saree of **Raigarh**, with **Janjgir - Champa** region is prepared by the yarn which is prepared through thigh reeling process. In this process the threads are rubbed with the thighs because for abstracting them from cocoons.
- No use of Jacquard.
- Kosa silk can be blended with cotton, wool and many other textile fibers and used for weaving.
- Tussar fabric can be printed or dyed by various techniques such as blocks, khadi, roller prints, tie & dye etc.

(L) Inspection Body:

The Inspection body proposed for Champa Silk Saree and Fabrics would be as follows:

1. Department of Handloom and Textile, Government of Chhattisgarh.
2. Central & State Silk Board.
3. Weaver's Service Center.
4. Consortium of producers, manufacturers and exporters.
5. Textile Committee.



दूरी तालिका

सिरपुर	राजनांदगांव	राजिम	रायपुर	रायगढ़	पाली	महासमुंद	कोरबा	कवर्धा	कांकेर	जशपुरनगर	जांजगीर	जगदलपुर	दुर्ग	धमतरी	दंतेवाड़ा	भोपाल	भिलाई	बिलासपुर	बैकुंठपुर	अम्बिकापुर	दूरी कि.मी. में
																				0	अम्बिकापुर
																			0	79	बैकुंठपुर
																		0	176	191	बिलासपुर
																	0	142	318	333	भिलाई
																0	600	654	677	759	भोपाल
															0	994	401	487	663	678	दंतेवाड़ा
														0	298	708	103	188	364	379	धमतरी
													0	115	407	690	11	155	330	346	दुर्ग
												0	332	222	84	644	321	400	576	727	जगदलपुर
											0	456	198	234	539	510	187	46	222	237	जांजगीर
										0	226	688	441	475	772	780	430	287	197	119	जशपुरनगर
									0	533	299	153	177	83	237	796	166	252	432	438	कांकेर
								0	295	368	156	448	121	234	532	354	132	109	286	290	कवर्धा
							0	202	332	200	48	487	245	272	570	586	233	93	130	145	कोरबा
						0	251	161	149	446	172	301	91	89	364	665	80	165	382	397	महासमुंद
					0	215	57	183	298	256	98	462	200	237	546	755	189	51	136	143	पाली
				0	190	202	149	273	386	186	104	536	276	325	623	865	265	165	254	176	रायगढ़
			0	243	167	52	201	112	139	440	160	295	39	78	419	622	22	113	325	300	रायपुर
		0	48	261	215	36	239	155	127	432	184	287	84	85	368	670	70	158	373	344	राजिम
	0	113	69	319	227	120	278	113	123	493	224	288	29	96	337	650	40	181	361	368	राजनांदगांव
0	134	125	77	166	244	48	228	164	172	346	111	372	106	111	406	698	99	132	444	366	सिरपुर

छत्तीसगढ़ - तथ्य व आंकड़े

जिला	जिला मुख्यालय	क्षेत्रफल (वर्ग कि॰मी॰ में)	जनसंख्या (2001)		जनसंख्या वृद्धि दर (1991-2001)	साक्षरता (%)	
			पुरुष	महिलाएँ		पुरुष	स्त्री
बस्तर	जगदलपुर	26,882.10	6,48,068	6,54,185	18.28	57.09	33.97
बिलासपुर	बिलासपुर	7,214.90	10,09,007	9,84,035	17.59	78.98	48.08
दंतेवाड़ा	दंतेवाड़ा	9,109.60	3,56,502	3,62,563	15.56	39.59	20.59
धमतरी	धमतरी	2,079.00	3,50,962	3,52,607	19.72	86.78	63.66
दुर्ग	दुर्ग	8,537.00	14,13,785	13,87,972	16.88	86.59	64.91
जांजगीर - चांपा	जांजगीर	3,672.40	6,58,377	6,57,763	18.55	82.2[illegible]	50.41
जशपुर	जशपुरनगर	4,570.00	3,70,287	3,69,498	12.71	76.70	54.09
कांकेर	कांकेर	3,122.30	3,24,678	3,26,655	18.84	83.63	63.69
कवर्धा	कवर्धा	1,746.30	2,92,054	2,92,613	13.86	71.85	39.60
कोरबा	कोरबा	9,009.70	5,15,467	4,96,654	22.55	77.27	48.65
कोरिया	बैकुंठपुर	4,3[illegible].70	3,00,723	2,84,732	16.91	76.0[illegible]	50.08
महासमुन्द	महासमुन्द	3,863.00	4,26,011	4,34,165	8.72	81.58	54.04
रायगढ़	रायगढ़	8,3[illegible]1.00	6,38,995	6,31,091	18.68	83.10	57.90
रायपुर	रायपुर	15,359.00	15,20,024	14,89,018	18.97	82.41	55.30
राजनांदगांव	राजनांदगांव	9,360.70	6,33,292	6,48,519	17.70	87.54	67.52
सरगुजा	अम्बिकापुर	18,025.30	9,9[illegible],196	9,7[illegible],465	24.58	68.19	42.1[illegible]
छत्तीसगढ़	रायपुर	1,35,237.00	1,04,52,426	1,03,43,530	18.06	77.86	52.40

प्रबंध संचालक
छत्तीसगढ़ राज्य हाथकरघा विकास एवं विपणन सहकारी संघ मर्या. रायपुर

Attested

G.I. APPLICATION NUMBER - 186

Application is made by **(1) Kerala Agricultural University,** Kerala Agricultural University (PO), Thrissur District, Pin Code – 680 656, Kerala, India, **(2) Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi,** Rural Agricultural Wholesale Market, Sulthan Bathery, Wayanad - 673 592, Kerala, India, for Registration in Part - A of the Register of **Wayanad Jeerakasala Rice** under Application No.186 in respect of Rice 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.

Applicant	**:**	(1)	Kerala Agricultural University,
		(2)	Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi;
Address	**:**	(1)	Kerala Agricultural University, Kerala Agricultural University (PO), Thrissur Dist, Pin Code - 680 656, Kerala, India;
		(2)	Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Rural Agricultural Wholesale Market, Sulthan Bathery, Wayanad - 673592, Kerala, India.
Geographical Indication	**:**	**WAYANAD JEERAKASALA RICE**	
Class	**:**	**30**	
Goods	**:**	**Class – 30 -** Rice	

(A) Name of the Applicants : (1) Kerala Agricultural University,

(2) Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi,

(B) Address : (1) Kerala Agricultural University, Kerala Agricultural University (PO), Thrissur Dist, Pin Code - 680656, Kerala, India

(2) Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Rural Agricultural Wholesale Market, Sulthan Bathery, Wayanad- 673592, Kerala,

(C) List of association of persons/ Producers / organization/ authority : To be provided on request

(D) Type of Goods : **Class – 30** Rice

(E) Specification :

Wayanad Jeerakasala Rice is a popular traditional aromatic rice cultivar of Wayanad District. This scented, non-basmati rice is famous for its characteristic fragrance and aroma. Grains are of medium size and shape (slightly elongated), with golden yellow colour and partial short awns. Wayanad Jeerakasala rice differs from Basmati rice due to growth habit, areas of original cultivation, physico-chemical properties of grains and grain shape. The pleasant flavour and aroma of Wayanad Jeerakasala rice fetches a premium price in the market. Other rice cultivars of Wayanad except Gandhakasala are non aromatic and hence are used for ordinary consumption.

The major grain characters are given below:

1.	Kernel length	4.7 mm - 6.0 mm
2.	Kernel shape (lib)	2.13 - 2.73
3.	Kernel colour	White
4.	Aroma	Slight to moderate
5.	Hull colour	Golden yellow
6.	1000 grain weight	18.0 - 23.0 gms
7.	Volume expansion ratio	4.50 - 4.90
8.	Kernel elongation ratio	1.32 - 1.42
9.	Brown rice (%)	77.0 - 81.0
10.	Total milled rice (%)	70.0 - 73.0
11.	Degree of milling (%)	70.0 - 75.0
12.	Head rice recovery (%)	61.0 - 65.0
13.	Gelatinization temperature	High to intermediate
14.	Chalkiness	Less than 10%
15.	Amylose content (%)	20(intermediate)

(F) Name of the Geographical Indication :

WAYANAD JEERAKASALA RICE

(G) Description of Goods :

The botanical name of rice plant is *Oryza sativa. Wayanad Jeerakasala Rice* is the traditional aromatic rice cultivar of Wayanad. The average grain yield of *Wayanad Jeerakasala Rice is* 2.0-2.7 t/ ha and straw yield of 4.0 t/ha. The plants are tall with long duration of 180 to 190 days and are weakly photosensitive. It is a tall variety with weak straw and is susceptible to lodging and is tolerant to pests and diseases.

The average plant height of Wayanad Jeerakasala cultivar is 130-140cm with lesser no. of tillers (average 7 to 8 tillers) and very long panicles (27-31 cm) with 130 to 150 grains which are short awned, medium in size and shape (slightly elongated) with golden yellow colour for the hull. *Wayanad Jeerakasala* rice differs from Basmati rice due to growth habit, areas of original cultivation, physico -chemical properties of grains and grain shape. The grains of Basmati, popular aromatic rice variety of India are slender and elongated when compared to this variety (The variety Basmati 370 has a kernel length of 6.0 - 6.8 mm).

The major grain characters are given below:

1.	Kernel length	4.7 mm - 6.0 mm
2.	Kernel shape (lib)	2.13 - 2.73
3.	Kernel colour	White
4.	Aroma	Slight to moderate
5.	Hull colour	Golden yellow
6.	1000 grain weight	18.0 - 23.0 gms
7.	Volume expansion ratio	4.50 - 4.90
8.	Kernel elongation ratio	1.32 - 1.42
9.	Brown rice (%)	77.0 - 81.0
10.	Total milled rice (%)	70.0 - 73.0
11.	Degree of milling (%)	70.0 - 75.0
12.	Head rice recovery (%)	61.0 - 65.0
13.	Gelatinization temperature	High to intermediate
14.	Chalkiness	Less than 10%
15.	Amylose content (%)	20(intermediate)

The uniqueness and aroma of the product is maintained by adopting organic methods for cultivation. For better aroma, the crop is raised in the *Nancha* season (winter season) so that flowering coincides with the coldest months of November and December. It is mainly cultivated in *kundu vayals* (deep fields). The faunal diversity associated with paddy fields is rich and plays a significant role in controlling harmful insects and pests. Sixteen species of birds have been reported from these paddy fields. The diversity of fish is also reported to be high in *kundu vayals.*

Rouging is done periodically by removing off types to maintain varietal purity. Upon attaining physiological maturity, panicles are selected using strict quality standards pertaining to the morphological characteristics for the collection of seeds for the next season. As parboiling of paddy reduces the aroma and quality, the grains are marketed as raw rice.

(H) Geographical Area of Production and Map as shown in page no. 85 **:**

Wayanad lies (in the State of Kerala, India) between North latitude 11 ° 27' and 12° and East longitude 75° 46' and 76°27'. The altitude of Wayanad varies from 700 to 2100 meters from mean sea level. It is bounded on the East by Nilgiris of Tamilnadu and Mysore District of Karnataka, on the North by Coorg District of Karnataka, on the South by Malappuram District of Kerala and on the West by Kozhikode and Kannur Districts of Kerala.

The total geographical area and population of Wayanad are 2126 sq.kms and 6, 72,128 respectively. Its geographical position is peculiar and unique. Placed on the Southern tip of the Deccan plateau, the prime glory of Wayanad is the majestic Western Ghats, with lofty ridges interspersed with magnificent forests, tangled jungles and valleys. The hills are full of plantations like tea, coffee, pepper and cardamom while the dales have a predominance of paddy.

Climate: Wayanad is the land of hills and deep valleys. The altitude of Wayanad varies from 700 to 2100 meters above mean sea level. Wayanad has a salubrious climate. Annual rainfall of high rainfall areas in Wayanad like Lakkidi, Vythiri and Meppadi ranges from 3000-4000 mm. High velocity winds are common during the South -West monsoon and dry winds blow in March - April. High altitude regions experience severe cold. In Wayanad the mean maximum and minimum temperature for the last fifteen years were 27°C and 17 °C respectively. This place experiences a high relative humidity, which goes even up to 95 percent during the South West monsoon period. The average annual rainfall of Wayanad is 1875 mm.

The region is biogeographically rich with significant landscape complexity and biological diversity in both flora and fauna. The flora of Wayanad is characteristic of the Western Ghats. Forty one percent of the area is under natural forests, ranging from tropical wet evergreen to tropical dry deciduous types. Wayanad offers a panorama of undulating hills and dales which are converted into paddy fields. The cool climate offered by high altitude favors development of aroma in rice and spice crops.

Soil: The soil of Wayanad District is mainly of the forest type which is well drained with rapid to moderate permeability. The soil has dark reddish brown to reddish brown, strongly acid, sandy loam to sandy clay loam A horizons and reddish brown to yellowish red, strongly acid to medium acid B horizons. The texture of upper layers of the subsurface horizon is sandy clay loam to sandy clay. These soils are formed on gneissic material on strongly sloping to steep side slopes of Wayanad. The lush and luxuriant growth of vegetation makes Wayanad clothed in uniform greenery.

The soil nutrient status is as follows:

Nitrogen	-	Medium (0.88% - 1.20%)
Phosphorus	-	Low (7.3-8.5) kg/ha
Potassium	-	Medium to high (230-535kg/ha)
Soil Reaction	-	Strongly acid to medium acid

Almost entire Wayanad is drained by Kabani river and its tributaries, namely Panamaram, Mannanthavady and Thirunelli. The river Kabani, courses through the paddy fields. The east flowing rivers of Wayanad are in striking contrast to the majority of west flowing rivers of Kerala.

Details regarding water quality of the area are furnished herewith :

Characteristics	**Desirable limits**	**Sample code / rating**	
		Sample I	*Sample 2*
PH	6.5 - 8.5	6.70 - medium	5.60 -low
Ec		0.207	0.212
Total hardness	300 mg/l	80 mg/l - low	42 mg/l - low
Calcium	75 mg/l	20 mg/l - low	8 mg/l - low
Magnesium	30 mg/l	7.3 mg/l - low	5.4 mg/l - low

Wayanad Jeerakasala rice is cultivated through out Wayanad district, in an approximate area of 22ha. There is scope for further expansion of area under this cultivar.

(I) Proof of Origin (Historical records):

Mention about the traditional tall *indica* aromatic cultivars like *Jeerakasala* and *Gandhakasala* are noted in the age old Malayalam books written on the basis of old verbal recitation in Malayalam called *"Krishi Gita"* describing the whole agricultural practices followed in *Malayalakkara,* present day Kerala, during the 17th century. *Krishi Gita* is written in four parts by anonymous author(s) in old Malayalam language and contains a wealth of information about the agricultural practices in Kerala and the nearby regions. Compiled at an unspecified time in history, *Krishi Gita* epitomizes the equivalent of the present day recommended package of practices for crop production. It covers a wide spectrum of crops including cereals, pulses, vegetables, fruits and nuts grown in Kerala since time immemorial.

Krishi Gita has been translated into English by Dr. B. Mohan Kumar in the book entitled *Krishi Gita* (Agricultural Verses) with commentaries by Dr. B. Mohan Kumar and Sri. P. K. Ramachandran Nair. This book is published by the Asian Agri History Foundation, Andhra Pradesh. In this book it is mentioned that several versions of *Krishi Gita* are available and the one that is translated is classified as D.No.298 by Adyar Library, Chennai. This version was edited by Vidwan C. Govinda Wariar and published in the Bulletin of the Government Oriental Manuscript Library, Madras.

The original author of *Krishi Gita* is not known and there is no date indicated on the manuscript. It is assumed that the book might have been compiled before 15th century as the crops mentioned in these verses are indigenous ones and not those introduced by Europeans (Portuguese). The verse starts with a distressed note of Brahmins praising Lord *Parasurama,* seeking his benevolence and knowledge to improve farming techniques presumably to overcome an agricultural crisis. In the 73rd line of Part 1 of this verse, there is a mention about the variety *Jeerakasala (Krishi Gita Agricultural Verses, Page 40).* The book says about the seeds suitable for different kinds of lands and it also says that *Jeerakasala* is very appropriate for cultivation.

'Krishigeetha- Chol/um Vayanayum" one of the books written on the basis of *"Krishippattu"* is a folkloristic study of an 18th century traditional and primitive agriculture in *Malayalakkara.* This book is compiled by the Nattarivu Padana Kendram, Kanimangalam P.O., Thrissur (Ed. by T.T. Sreekumar, C. R. Rajagopalan and Vijayakumar Menon). In this book it is mentioned that in "Kattappattu" the *Pul/uva* tribes in their festival rituals and songs praise all their favorite rice varieties including *Jeerakasala (Krishigeetha- Chol/um Vayanayum', page 83,).*

The rice variety *Jeerakasala,* is also mentioned in the book *Pulluvappattum Naagaaradhanayum, Paatukalum patanavum* (pulluva songs and snake worship - songs and studies) published in 1977 where the author Sri. M. V. Vishnu Nambuthiri has compiled different rituals and songs sung by the *Pulluva* tribes during different occasions. This variety is mentioned in a particular song *"Kattappaattu'* where the tribal singers go to rice fields awaiting harvest and sing this song. They get panicles in return *[Pulluvappattum Naagaaradhanayum (Paatukalum Patanavum), page 146147]*.

There is mention about this variety in *Krishiyude Naattarivukal,* edited by Sri. V. K. Sreedharan, published by D. C. Books, Kerala in 2004. In this book it is also mentioned that in the *"Vilhupolipattu,"* the song of seeds in the ritual *"Kothaamooriyattom"* in North Kerala done for good yield of crops and dairy in the coming crop season, there is mention about *Jeerakasala (Krishiyude Naattarivukal, page 31).*

Scientists from M. S. Swaminathan Research Foundation, Kalpetta, Wayanad described the rice cultivation system of Wayanad and the culture of *Kurichya* and *Kuruma* tribal communities in Wayanad. In this article it is mentioned that *Jeerakasala* is ideal for cultivation in *Kundu Vayals (LEISA INDIA, December 2004. pp.27-28).*

Protection of Plant Varieties & Farmers' Rights Authority, Govt. of India honoured the Kuruma and Kurichya tribal communities of Wayanad district through "Plant Genome Saviour Community Award" 2008 for their contributions in the conservation of traditional rice varieties including *Jeerakasala (The Hindu dt. 07/03/2009).*

(J) Method of Production :

Wayanad Jeerakasala Rice is grown in the broad and extensive valley bottom in Wayanad and the low temperature regime prevailing in this area encourages cultivation of scented rice varieties.

Wayanad Jeerakasala Rice, the traditional aromatic cultivar of Wayanad is cultivated in *Nancha season (Kharif)* based on traditional knowledge comprising local knowledge of varieties, ecological and environmental factors, traditional belief and cultivation practices to have optimum use of resources. The livelihood and food security of tribes of Wayanad viz., Kurichyas and Kurumas mainly depends on paddy.

Depending on the availability of water, soil composition and soil fertility different cultivars are traditionally cultivated in *vayals* (paddy fields). *Jeerakasala* being a medium duration cultivar is mainly cultivated in *kundu vayals* (deep fields). The faunal diversity associated with paddy fields is rich and plays a significant role in controlling harmful insects and pests. Sixteen species of birds have been reported from these paddy fields. The diversity of fish is also reported to be high in *kundu vayals* (deep fields).

In Wayanad this variety is traditionally cultivated by the Wayanad *Chettis, Kurichya* and *Kuruma* tribal group. Theses groups have a commitment for the conservation of these varieties as a gift to the coming generations. *Jeerakasala* is a variety that is traditionally grown as an organic crop to ensure the best quality of the product. The organic system of traditional rice cultivation in Wayanad is ecofriendly. This variety which has been in cultivation in Wayanad for many centuries is inherently resistant to pests and diseases owing to thin and tall stature of plants. Hence no chemical plant protection chemicals are applied to the crop. But the thin and tall feature of the plants makes them susceptible to lodging. In order to avoid lodging, chemical fertilizers are not applied to the crop. The manuring is done by raising green manure crops and leguminous crops and incorporating crop residues and farm yard manure as recommended by Kerala Agricultural University. A balanced manurial programme is followed. Maximum use of on farm resources and inputs is practiced to produce healthy and pollution free grains.

The temperature between 22°C and 26°C during flowering and dough stage of paddy are ideal for the expression of aroma in rice. The maximum temperature recorded at Wayanad from July- December ranges from 24°C to 26°C and hence is ideal for development of aroma flavour in *Wayanad Jeerakasala Rice.*

The variety is cultivated as a transplanted crop adopting the following practices:

Nursery:

Fertile lands with irrigation and drainage facilities which receive good sunlight are selected for raising the nurseries. For transplanting, healthy seedlings are raised in seedbed. Sowing of the nursery is done in June-July months. The selected area is ploughed and harrowed two or three times until the soil is thoroughly puddled and levelled. Raised beds are prepared 5 to 10 cm high, 1 to 1.5 m wide and of convenient length with drainage channels between the beds.

For each hectare of the main field, an area of about 1000 m^2 is taken as nursery area. Organic manure at the rate of one kg per m^2 of the nursery bed is mixed well with the soil at the time of preparation of the field. The nursery is raised by wet method. Germinated seeds are used for sowing in the well prepared nursery bed and adequate irrigation facilities are provided. The nursery bed is drained occasionally to encourage production of vigorous seedlings with short roots. Seedlings will be ready for transplanting thirty days after sowing.

Main field:

The field is ploughed thoroughly to prepare the main field. Weeds, straw and green manure crops are incorporated into the soil by ploughing. Organic manure will be applied @ 5t/ha. Chemical fertilizers are not applied for the crop. A smooth and level field for transplanting the seedlings is ensured. Transplantation is done 10-15 days after incorporating organic manure. Seedlings are transplanted @ 2-3 seedlings per hill in rows, at a depth of 3-4 cm. The crop has a long duration of 180-190 days. For better aroma, the crop is raised in the *Nancha* season (winter season) so that flowering coincides with the cold months of November and December. Hand weeding will be adopted twice or thrice to remove weeds. Rouging will be adopted to remove other varieties and off type varieties. As the crop is resistant to pest and diseases, plant protection chemicals are not used in cultivation.

Weed management is carried out in a way which ensures that losses are brought below the economic threshold level. Synthetic chemicals are not used for weed control. Instead periodic manual weeding is done and clean equipments are used. Rouging for the removal of off plants is done to avoid admixture in the final produce.

Harvesting:

Harvesting of crop will be done after attaining physiological maturity. This usually coincides with December - January months. Upon attaining physiological maturity, panicles are selected using strict quality standards pertaining to the morphological characteristics for the collection of seeds for the next season. After threshing manually, seeds are cleaned and dried in sunlight to a moisture level of 12 to 13 per cent.

Storage and processing:

After drying, the grains will be cleaned thoroughly and seeds will be stored in the traditional way. After drying to optimum moisture content, the raw grains are either hand pounded or milled in rice mills. Milling with rubber hullers gives better head rice (unbroken grains) recovery. Excessive drying is avoided to reduce breakage of the grains. Parboiling of paddy reduces the aroma and quality and hence is not adopted.

(K) Uniqueness :

Wayanad Jeerakasala Rice is a popular traditional aromatic rice cultivar of Wayanad District. This scented, non-basmati rice is famous for its characteristic fragrance and aroma. The uniqueness of this rice is mainly attributed to particular climatic conditions prevalent in the area, together with varietal characters and system of rice cultivation, adding to the best expression of aroma and flavour in the product. Wayanad is the land of hills and deep valleys. The altitude of Wayanad varies from 700 to 2100 meters from sea level. Wayanad has a salubrious climate. The mean average rainfall in the District is 2322mm. Lakkidi, Vythiri and Meppadi are the high rainfall areas in Wayanad. Annual rainfalls in these high rainfall areas ranges from 3000-4000 mm. High velocity winds are common during the South -West monsoon and dry winds blow in March - April. High altitude regions experience severe cold. In Wayanad (Ambalavayal) the mean maximum and minimum temperature for the last five years were 29°c and 18°c respectively. This place experiences a high relative humidity, which goes even up to 95 percent during the South West monsoon period.

The region is biogeographically rich with significant landscape complexity and biological diversity in both flora and fauna. The flora of Wayanad is characteristic of the Western Ghats. Forty one percent of the area is under natural forests, ranging from tropical wet evergreen to tropical dry deciduous types. The cool climate offered by high altitude favours development of aroma in rice and spice crops. Fragrances of these aromatic rice and plantation crops like tea, pepper, eucalyptus etc. suffuses the very air in this fairy land. Wayanad is ethnically diverse. Wayanad has the highest concentration of tribes in Kerala. The major tribe groups are Panniyar, Kurichyar, Adiyan, Kurumar,Oorali, Kadan and Kattunaicker. The Kurichyar is the agricultural tribal community.

The soil of Wayanad District is mainly of the forest type. It promotes a lush and luxuriant growth of vegetation, which makes Wayanad clothed in uniform greenery. Almost entire Wayanad is drained by the Kabani River and its tributaries, namely Panamaram, Mannanthavady and Thirunelli. The river Kabani, courses through the paddy fields. The east flowing rivers of Wayanad are in striking contrast to the west flowing rivers of the rest of Kerala.

Agriculture in Wayanad is equally divided between paddy and plantation crops. The hills are deep blue in bright sunlight and lie mist covered most of the time, juxtaposed with the green of paddy fields. The temperature between 22°C and 26°C during flowering and dough stage are ideal for the expression of aroma in rice. The maximum temperature recorded at Wayanad from July- December ranges from 24.4 °C to 26.8°C. The organic systems of traditional rice cultivation are eco-friendly. The distinctive, exclusive and rare qualities of *Wayanad Jeerakasala Rice* could be the result of several factors including genotype, climate, soil and other ecological factors and unique system of cultivation based on traditional and tribal knowledge.

Wayanad Jeerakasala Rice is a popular traditional aromatic rice cultivar of Wayanad District. This scented, non-basmati rice is famous for its characteristic fragrance and aroma. Grains are of medium size and shape (slightly elongated),

with golden yellow colour and partial short awns. *Wayanad Jeerakasala Rice* differs from Basmati rice due to growth habit, areas of original cultivation, physico-chemical properties of grains and grain shape. The pleasant flavour and aroma of *Wayanad Jeerakasala Rice* fetches a premium price in the market. Other rice cultivars of Wayanad, except Gandhakasala, are non scented and hence is used for ordinary consumption.

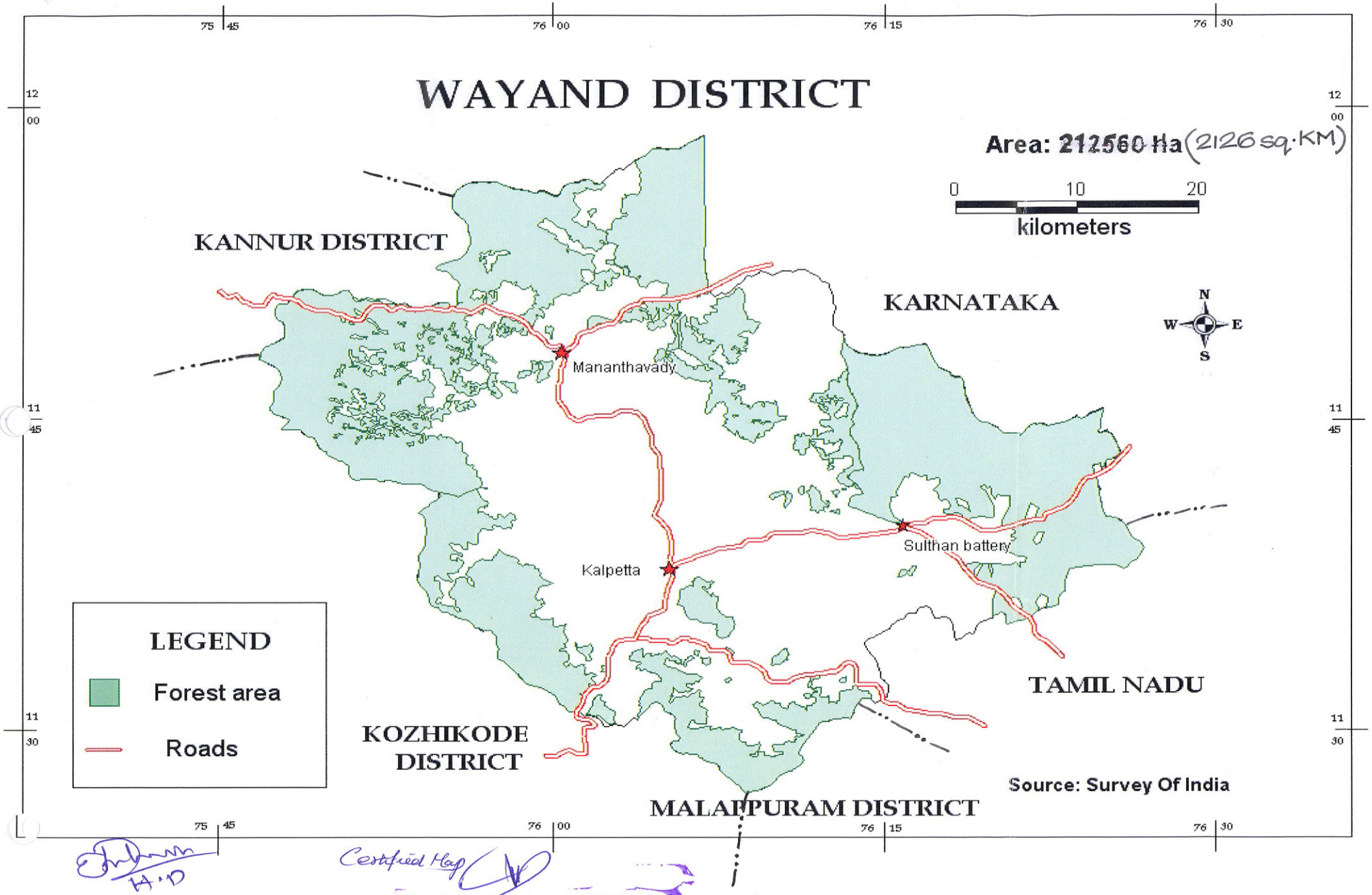
The plants are tall with long duration of 180 to 190 days and are weakly photosensitive. This cultivar has an average grain yield of 2.0-2.7 *t/* ha and straw yield of 4.0 t/ha. The average plant height of *Wayanad Jeerakasala Rice* cultivar is 130-140cm with lesser no. of tillers (average 7 to 8 tillers) and very long panicles (27-31 cm) with 130 to 150 grains which are short awned, medium in size and shape (slightly elongated) with golden yellow colour for the hull. The grains of Basmati, popular aromatic rice variety of India are slender and elongated when compared to this variety (Basmati 370 has a kernel length of 6.0-6.8mm).

Wayanad Jeerakasala Rice grains are slightly elongated and have intermediate amylose content. *Wayanad Jeerakasala Rice* cooks moist and tender and does not become hard on cooling. This aromatic rice is used for the preparation of special food like Ghee rice, also called *"Neichore"*, a delicacy of the Muslims of Kerala, and is a major Mappilah cuisine. In current days, not only Muslims, but all sections of the society have likings to such preparations leading to a growing demand for small grained aromatic rice. *Wayanad Jeerakasala* rice is also used for the preparation of Uppuma, Payasam , Puttu and rice flakes(aval). Jains residing in Wayanad area use this rice in their daily food intake Rice gruel *(karifi)* prepared from *Wayanad Jeerakasala Rice* is used in the diets of infants and invalids due to easy digestibility. It is also used as a geriatric food. The straw is highly relished by cattle.

(L) Inspection Body:

Inspection body will be constituted with the following members

1. Director of Research, Kerala Agricultural University,Thrissur
2. Co-ordinator, WTO Centre, Kerala Agricultural University,Thrissur
3. Convener, IPR Cell, Kerala Agricultural University, Thrissur
4. Associate Director of Research, RARS, Ambalavayal
5. Plant Breeder, RARS Ambalavayal
6. Principal Agricultural Officer, Wayanad District
7. Asst. Principal Agricultural Officer, Wayanad District
8. President, Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Wayanad.
9. Secretary, Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Wayanad
10. Agricultural Officer, Krishibhavan, Panamaram, Wayanad district
11. Agricultural Officer, Krishibhavan, Thirunelly, Wayanad district
12. Agricultural Officer, Krishibhavan, Noolpuzha, Wayanad district
13. Three farmer representatives cultivating *Wayanad Jeerakasala Rice* in Wayanad district



Certified Map

DISTRICT COLLECTOR,
WAYANAD.

G.I. APPLICATION NUMBER - 187

Application is made by **(1) Kerala Agricultural University,** Kerala Agricultural University (PO), Thrissur District, Pin Code – 680 656, Kerala, India, **(2) Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi,** Rural Agricultural Wholesale Market, Sulthan Bathery, Wayanad - 673 592, Kerala, India, for Registration in Part - A of the Register of **Wayanad Gandhakasala Rice** under Application No.187 in respect of Rice 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.

Applicant	**:**	(1)	Kerala Agricultural University,
		(2)	Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi;
Address	**:**	(1)	Kerala Agricultural University, Kerala Agricultural University (PO), Thrissur Dist, Pin Code - 680 656, Kerala, India;
		(2)	Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Rural Agricultural Wholesale Market, Sulthan Bathery, Wayanad - 673592, Kerala, India.
Geographical Indication	**:**		**WAYANAD GANDHAKASALA RICE**
Class	**:**		**30**
Goods	**:**		**Class – 30 -** Rice

(A) Name of the Applicants : (1) Kerala Agricultural University,

(2) Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi,

(B) Address : (1) Kerala Agricultural University, Kerala Agricultural University (PO), Thrissur Dist, Pin Code - 680656, Kerala, India

(2) Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Rural Agricultural Wholesale Market, Sulthan Bathery, Wayanad- 673592, Kerala,

(C) List of association of persons/ Producers / organization/ authority : To be provided on request

(D) Type of Goods : **Class – 30** Rice

(E) Specification :

Wayanad Gandhakasala Rice is the most popular traditional aromatic rice cultivar of Wayanad District. This scented (non-basmati) rice is famous for its characteristic fragrance and aroma. The grains are aromatic, short bold, awnless with a lemma and palea (hull) colour of straw. Grains have golden yellow colour. *Wayanad Gandhakasala Rice* differs from Basmati rice due to growth habit, areas of original cultivation, physico-chemical properties of grains and grain shape.

The grains are very short in size compared to other popular aromatic rice varieties like basmati as well as the common rice varieties of Wayanad and Kerala. The grains have an appealing golden yellow colour. The length of the rice grain ranges between 4 to 4.8mm coming to the international classification of short-bold. The *Wayanad Gandhakasala Rice* colour is white with moderate pleasant aroma. The thousand grain weight is only 15 to 18.9 grams owing to small grains. The gelatinization temperature is high to intermediate indicating high to intermediate cooking time. The intermediary amylose content renders non stickiness to this rice. Other rice cultivars of Wayanad except Gandhakasala are non aromatic and hence are used for ordinary consumption.

This paddy requires specialized mills with rubber hullers for getting high head rice (unbroken grains) recovery. *Wayanad Gandhakasala Rice* is a long duration variety with tall plants and has a low grain yield of 2.0 to 2.7 tonnes per hectare. It is mainly cultivated in the organic way. The total duration of the crop is 180-190 days.

The major grain characters *Wayanad Gandhakasala Rice* are given below:

1.	Kernel length	4.0 mm - 5.0 mm
2.	Kernel shape (lib)	1.72 - 2.00 (Short bold)
3.	Kernel colour	White
4.	Aroma	Slight to moderate
5.	Hull colour	Golden yellow
6.	1000 grain weight	15.0-18.90 gms
7.	Volume expansion ratio	4.80-6.00
8.	Kernel elongation ratio	1.56-1.90
9.	Brown rice (%)	76.0-81.0
10.	Total milled rice (%)	65.0- 75.0
11.	Degree of milling (%)	86.0-90.79
12.	Head rice recovery (%)	58.0-70.0
13.	Gelatinization	High to intermediate
14.	Chalkiness	Less than 10%
15.	Amylose content (%)	19.0-21.0

(F) Name of the Geographical Indication :

WAYANAD GANDHAKASALA RICE

(G) Description of Goods:

The botanical name of rice plant is *Oryza sativa. Wayanad Gandhakasala Rice* is the traditional aromatic rice cultivar of Wayanad. The average grain yield of *Wayanad Gandhakasala Rice* is 2.0-2.7t/ha. This is a long duration (180-190days) tall variety with weak straw and is susceptible to lodging. The cultivar has tolerance to pests and diseases. The average plant height of *Wayanad Gandhakasala Rice* cultivar is 150-155cm with lesser no. of tillers (average 6 to 8 tillers) and very long panicles (27-28.4cm) with 105 to 110 small, short bold, awn less golden yellow colored grains.

Wayanad Gandhakasala Rice is valued for its pleasant flavour and aroma and hence fetches a premium price in the market. It is mainly used for preparation of special dishes like "Ghee rice"/fried rice or "neichoru" prepared for marriages and festivals and also for the preparation of sweet items like "Payasam". The grains are very short in size compared to other popular aromatic rice varieties like basmati as well as the common rice varieties of Wayanad and Kerala. The grains have an appealing golden yellow colour. The length of the rice grain ranges between 4 to 5.0mm coming to the international classification of short-bold. The rice colour is white with moderate pleasant aroma. The thousand grain weight is only 15 to 18.9 grams owing to small grains. The gelatinization temperature is high to intermediate indicating high to intermediate cooking time. The intermediary amylose content renders non stickiness to this rice. This paddy requires specialized mills with rubber hullers for getting high head rice (unbroken

grains) recovery. *Wayanad Gandhakasala Rice* is a long duration variety with tall plants and has a low grain yield of 2.0 to 2.7 tonnes per hectare. It is mainly cultivated in the organic way. The total duration of the crop is 180-190 days.

The average plant height of *Wayanad Gandhakasala Rice* cultivar is 150-155cm with lesser no. of tillers (average 6 to 8 tillers) and very long panicles (27-28.4cm) with 105 to 110 small, short bold, awn less golden yellow colored grains.

The major grain characters *Wayanad Gandhakasala Rice* are given below:

1.	Kernel length	4.0 mm - 5.0 mm
2.	Kernel shape (lib)	1.72 - 2.00 (Short bold)
3.	Kernel colour	White
4.	Aroma	Slight to moderate
5.	Hull colour	Golden yellow
6.	1000 grain weight	15.0-18.90 gms
7.	Volume expansion ratio	4.80-6.00
8.	Kernel elongation ratio	1.56-1.90
9.	Brown rice (%)	76.0-81.0
10.	Total milled rice (%)	65.0- 75.0
11.	Degree of milling (%)	86.0-90.79
12.	Head rice recovery (%)	58.0-70.0
13.	Gelatinization	High to intermediate
14.	Chalkiness	Less than 10%
15.	Amylose content (%)	19.0-21.0

The uniqueness of the product is maintained by adopting organic methods for cultivation. For better aroma, the crop is raised in the *Nancha* season (winter season) so that flowering coincides with the coldest months of November and December. It is mainly cultivated in *kundu vayals* (deep fields). The faunal diversity associated with paddy fields is rich and plays a significant role in controlling harmful insects and pests. Sixteen species of birds have been reported from these paddy fields. The diversity of fish is also reported to be high in *kundu vayals.*

Rouging is done periodically by removing off types to maintain varietal purity. Upon attaining physiological maturity, panicles are selected using strict quality standards pertaining to the morphological characteristics for the collection of seeds for the next season. As parboiling of paddy reduces the aroma and quality, the grains are marketed as raw rice.

(H) Geographical Area of Production and Map as shown in page no. 97**:**

Wayanad lies (in the State of Kerala, India) between North latitude 11 ° 27' and 12° and East longitude 75° 46' and 76°27'. The altitude of Wayanad varies from 700 to 2100 meters from mean sea level. It is bounded on the East by Nilgiris of Tamilnadu and Mysore District of Karnataka, on the North by Coorg District of Karnataka, on the South by Malappuram District of Kerala and on the West by Kozhikode and Kannur Districts of Kerala.

The total geographical area and population of Wayanad are 2126 sq.kms and 6, 72,128 respectively. Its geographical position is peculiar and unique. Placed on

the Southern tip of the Deccan plateau, the prime glory of Wayanad is the majestic Western Ghats, with lofty ridges interspersed with magnificent forests, tangled jungles and valleys. The hills are full of plantations like tea, coffee, pepper and cardamom while the dales have a predominance of paddy.

Climate: Wayanad is the land of hills and deep valleys. The altitude of Wayanad varies from 700 to 2100 meters above mean sea level. Wayanad has a salubrious climate. Annual rainfall of high rainfall areas in Wayanad like Lakkidi, Vythiri and Meppadi ranges from 3000-4000 mm. High velocity winds are common during the South -West monsoon and dry winds blow in March - April. High altitude regions experience severe cold. In Wayanad the mean maximum and minimum temperature for the last fifteen years were 27°C and 17 °C respectively. This place experiences a high relative humidity, which goes even up to 95 percent during the South West monsoon period. The average annual rainfall of Wayanad is 1875 mm.

The region is biogeographically rich with significant landscape complexity and biological diversity in both flora and fauna. The flora of Wayanad is characteristic of the Western Ghats. Forty one percent of the area is under natural forests, ranging from tropical wet evergreen to tropical dry deciduous types. Wayanad offers a panorama of undulating hills and dales which are converted into paddy fields. The cool climate offered by high altitude favors development of aroma in rice and spice crops.

Soil: The soil of Wayanad District is mainly of the forest type which is well drained with rapid to moderate permeability. The soil has dark reddish brown to reddish brown, strongly acid, sandy loam to sandy clay loam A horizons and reddish brown to yellowish red, strongly acid to medium acid B horizons. The texture of upper layers of the subsurface horizon is sandy clay loam to sandy clay. These soils are formed on gneissic material on strongly sloping to steep side slopes of Wayanad. The lush and luxuriant growth of vegetation makes Wayanad clothed in uniform greenery.

The soil nutrient status is as follows:

Nitrogen	-	Medium (0.88% - 1.20%)
Phosphorus	-	Low (7.3-8.5) kg/ha
Potassium	-	Medium to high (230-535kg/ha)
Soil Reaction	-	Strongly acid to medium acid

Almost entire Wayanad is drained by Kabani river and its tributaries, namely Panamaram, Mannanthavady and Thirunelli. The river Kabani, courses through the paddy fields. The east flowing rivers of Wayanad are in striking contrast to the majority of west flowing rivers of Kerala.

Details regarding water quality of the area are furnished herewith

Characteristics	Desirable limits	Sample code / rating	
		Sample I	*Sample 2*
PH	6.5 - 8.5	6.70 - medium	5.60 -low
Ec		0.207	0.212
Total hardness	300 mg/l	80 mg/l - low	42 mg/l - low
Calcium	75 mg/l	20 mg/l - low	8 mg/l - low
Magnesium	30 mg/l	7.3 mg/l - low	5.4 mg/l - low

Wayanad Gandhakasala Rice is cultivated through out Wayanad district, predominantly in 22 Panchayats. *Wayanad Gandhakasala Rice* is cultivated in an approximate area of 327 ha.

(I) Proof of Origin (Historical records):

Mention about the traditional tall *indica* aromatic cultivars like *Jeerakasala* and *Gandhakasala* are noted in the age old Malayalam books written on the basis of old verbal recitation in Malayalam called "Krishi Gita" describing the whole agricultural practices followed in *Malayalakkara,* during the 17th Century.

'Krishigeetha- Chol/um Vayanayum' is a folkloristic study of an 18th Century traditional and primitive agriculture in *Malayalakkara.* This book is compiled by the *Nattarivu Padana Kendram,* Kanimangalam P.O., Thrissur (Ed. by T.T. Sreekumar, C. R. Rajagopalan and Vijayakumar Menon). In this book it is mentioned that in "Kattappattu" the *Pul/uva* tribes in their festival rituals and songs praise all their favorite rice varieties including *Gandhakasala ('Krishigeetha- Chollum Vayanayum', page 83*).

The rice variety *Gandhakasala,* is also mentioned in the book *Pulluvappattum Naagaaradhanayum, Paatukalum Patanavum* (Pulluva songs and snake worship songs and studies) published in 1977 where the author Sri. M. V. Vishnu Nambuthiri has compiled different rituals and songs sung by the *Pul/uva* tribes during different occasions. This variety is mentioned in a particular song *"Kattappaattu'* where the tribal singers go to rice fields awaiting harvest and sing this song. They get panicles in return *(Pul/uvappattum Naagaaradhanayum (Paatukalum Patanavum), page 146147)*

There is mention about this variety in *Krishiyude Naattarivukal,* edited by Sri. V. K. Sreedharan, published by D. C. Books, Kerala in 2004. In this book it is also mentioned that in the *"Vithupolipattu,"* the song of seeds in the ritual *"Kothaamooriyattom"* in North Kerala done for good yield of crops and dairy in the coming crop season, there is mention about *Gandhakasala (Krishiyude Naattarivukal, page 31).*

Article written by scientists from M. S. Swaminathan Research Foundation, Kalpetta, Wayanad, Kerala about rice cultivation system of Wayanad and the culture of Kurichya and Kuruma tribal communities in Wayanad *(LEISA INDIA, December 2004. pp.27-28).*

Protection of Plant Varieties & Farmers' Rights Authority, Govt. of India honoured the Kuruma and Kurichya tribal communities of Wayanad district through "Plant Genome Saviour Community Award" 2008 for their contributions in the conservation of traditional rice varieties including Gandhakasala *(The Hindu dt. 07/03/2009).*

(J) Method of Production:

Rice is grown in the broad and extensive valley bottom in Wayanad and the low temperature regime prevailing in this area encourages cultivation of scented rice varieties.

Wayanad Gandhakasala Rice, the famous traditional aromatic cultivar of Wayanad is cultivated in *Nancha* season based on traditional knowledge about varieties, ecological and environmental factors, traditional belief and cultivation practices to have optimum use of resources. The livelihood and food security of tribes of Wayanad viz. Kurichiyas and Kurumas, mainly depends on paddy. *Wayanad Gandhakasala Rice,* being a long duration cultivar is mainly cultivated in *kundu vayals.* The faunal diversity associated with paddy fields is rich and plays a significant role in controlling harmful insects and pests. Sixteen species of birds have been reported from these paddy fields. The diversity of fish is also reported to be high in *kundu vayals.*

In Wayanad this variety is traditionally cultivated by the Wayanad *Chettis, Kurichiya* and *Kuruma* tribal group. Theses groups have a commitment for the conservation of these varieties as a gift to the coming generations. *Wayanad Gandhakasala Rice* is a variety that is traditionally grown as an organic crop to ensure the best quality of the product. The organic system of traditional rice cultivation in Wayanad is eco-friendly. This variety which has been in cultivation in Wayanad for many centuries is inherently resistant to pests and diseases owing to thin and tall stature of plants. Hence no chemical plant protection chemicals are applied to the crop. But the thin and tall feature of the plants makes them susceptible to lodging. In order to avoid lodging, chemical fertilizers are not applied to the crop. The manuring is done by raising green manure crops and leguminous crops and incorporating crop residues and farm yard manure as recommended by Kerala Agricultural University. A balanced manurial programme is followed. Maximum use of on farm resources and inputs is practiced to produce healthy and pollution free grains.

The temperature between 22°C and 26°C during flowering and dough stage of paddy are ideal for the expression of aroma in rice. The maximum temperature recorded at Wayanad from July- December ranges from 24°C to 26°C and hence is ideal for development of aroma flavour in *Wayanad Gandhakasala Rice.*

Wayanad Gandhakasala Rice is cultivated as a transplanted crop. Sowing is done in June-July months. Transplanting will be done after 35-40 days. The crop is mainly raised by organic way of cultivation using cow dung and green leaves as manures. Pest and disease incidence is very low. Harvesting of crop will be done after attaining physiological maturity.

The variety is cultivated as a transplanted crop adopting the following practices:

Nursery:

Fertile lands with irrigation and drainage facilities which receive good sunlight are selected for raising the nurseries. For transplanting, healthy seedlings are raised in seedbed. Sowing of the nursery is done in June-July months. The selected area is ploughed and harrowed two or three times until the soil is thoroughly puddled and levelled. Raised beds are prepared 5 to 10 cm high, 1 to 1.5 m wide and of convenient length with drainage channels between the beds. For each hectare of the main field, an area of about 1000 m^2 is taken as nursery area. Organic manure at the· rate of one kg per m^2 of the nursery bed is mixed well with the soil at the time of preparation of the field. The nursery is raised by wet method. Germinated seeds are used for sowing in the well prepared nursery bed and adequate irrigation facilities are provided. The nursery bed is drained occasionally to encourage production of vigorous seedlings with short roots. Seedlings will be ready for transplanting thirty days after sowing.

***Main field*:**

The field is ploughed thoroughly to prepare the main field .Weeds, straw and green manure crops are incorporated into the soil by ploughing. Organic manure will be applied @ 5t/ha. Chemical fertilizers are not applied for the crop. A smooth and level field for transplanting the seedlings is ensured. Transplantation is done 10-15 days after incorporating organic manure. Seedlings are transplanted @ 2-3 seedlings per hill in rows, at a depth of 3-4 cm. The crop has a long duration of 180-190 days. For better aroma, the crop is raised in the *Nancha* season (winter season) so that flowering coincides with the cold months of November and December. Hand weeding will be adopted twice or thrice to remove weeds. Rouging will be adopted to remove other varieties and off type varieties. As the crop is resistant to pest and diseases, plant protection chemicals are not used in cultivation.

Harvesting:

Harvesting periods & methods: Harvesting of crop will be done after attaining physiological maturity. This usually coincides with December - January months. Upon attaining physiological maturity, panicles are selected using strict quality standards pertaining to the morphological characteristics for the collection of seeds for the next season. After threshing manually, seeds are cleaned and dried in sunlight to a moisture level of 12 to 13 per cent.

Storage and processing:

After drying, the grains will be cleaned thoroughly and seeds will be stored in the traditional way. After drying to optimum moisture content, the raw grains are either hand pounded or milled in rice mills. Milling with rubber hullers gives better head rice (unbroken grains) recovery. Excessive drying will be avoided to reduce breakage of the grains. Parboiling of paddy reduces the aroma and quality and hence is not adopted.

(K) Uniqueness:

Wayanad Gandhakasala Rice is the most popular traditional aromatic rice cultivar of Wayanad District. This scented, non-basmati rice is famous for its characteristic fragrance and aroma. The uniqueness of this rice is mainly attributed to particular climatic conditions prevalent in the area, together with varietal characters and system of rice cultivation, adding to the best expression of aroma and flavour in the product.

Wayanad is the land of hills and deep valleys. The altitude of Wayanad varies from 700 to 2100 meters from mean sea level. Wayanad has a salubrious climate. The mean average rainfall in Wayanad is 2322 mm. Lakkidi, Vythiri and Meppadi are the high rainfall areas in Wayanad. Annual rainfall in these high rainfall areas ranges from 3000-4000 mm. High velocity winds are common during the South -West monsoon and dry winds blow in March - April. High altitude regions experience severe cold. In Wayanad (Ambalavayal) the mean maximum and minimum temperature for the last five years were 29°C and 18°C respectively. This place experiences a high relative humidity, which goes even up to 95 percent during the South West monsoon period.

The region is biogeographically rich with significant landscape complexity and biological diversity in both flora and fauna. The flora of Wayanad is characteristic of the Western Ghats. Forty one percent of the area is under natural forests, ranging from tropical wet evergreen to tropical dry deciduous types. Wayanad offers a panorama of undulating hills and dales which are converted into paddy fields. The cool climate offered by high altitude favors development of aroma in rice and spice crops. Fragrance of aromatic rice's and plantation crops like tea, pepper, eucalyptus etc. suffuses the very air in this fairy land.

Wayanad is ethnically diverse. Wayanad has the highest concentration of tribes in Kerala.The major tribe groups are Panyias, Kurichyas, Adiyans, Kurumas, Ooralis, Kadans and Kattunaickers.

The soil of Wayanad District is mainly of the forest type. It promotes a lush and luxuriant growth of vegetation, which makes Wayanad clothed in uniform greenery. Almost entire Wayanad is drained by Kabani river and its tributaries, namely Panamaram, Mannanthavady and Thirunelli. The river Kabani, courses through the paddy fields. The east flowing rivers of Wayanad are in striking contrast to the majority of west flowing rivers of Kerala.

Agriculture in Wayanad is equally divided between paddy and plantation crops. The hills are deep blue in bright sunlight and lie mist covered most of the time juxtaposed with the green of paddy fields.

The distinctive, exclusive and rare qualities of *Wayanad Gandhakasala Rice* could be the result of several factors including genotype, climate, soil and other ecological factors and system of cultivation based on traditional and tribal knowledge. The organic systems of traditional rice cultivation in Wayanad are eco-friendly. The temperature between 22°C and 26°C during flowering and dough stage of paddy are ideal for the expression of aroma in rice. The maximum

temperature recorded at Wayanad from July- December ranges from 24.4°C to 26.8°C and hence is ideal for development of aroma in *Wayanad Gandhakasala Rice*. Grains have slight to moderate aroma and hence is ideal for preparation of specialty foods. Unlike basmathi, *Wayanad Gandhakasala Rice* have short bold grains.

Wayanad Gandhakasala Rice is valued for its pleasant flavour and aroma and hence fetches a premium price in the market. This aromatic rice is mainly used for preparation of special dishes like "Ghee rice" / fried rice or "neichoru" prepared for marriages and festivals and also for the preparation of sweet items like "Payasam".

The grains of *Wayanad Gandhakasala Rice* are very short in size compared to other popular aromatic rice varieties like basmati as well as the common rice varieties of Wayanad and Kerala. The grains have an appealing golden yellow colour. The length of the rice grain ranges between 4 to 5.0mm coming to the international classification of short-bold. The rice colour is white with moderate pleasant aroma. The thousand grain weight is only 15 to 18.9 grams owing to small grains. The gelatinization temperature is high to intermediate indicating high to intermediate cooking time. The intermediary amylose content renders non stickiness to this rice. This paddy requires specialized mills with rubber hullers for getting high head rice (unbroken grains) recovery. *Wayanad Gandhakasala Rice* is a long duration variety with tall plants and has a low grain yield of 2.0 to 2.7 tonnes per hectare. It is mainly cultivated in the organic way. The total duration of the crop is 180-190 days.

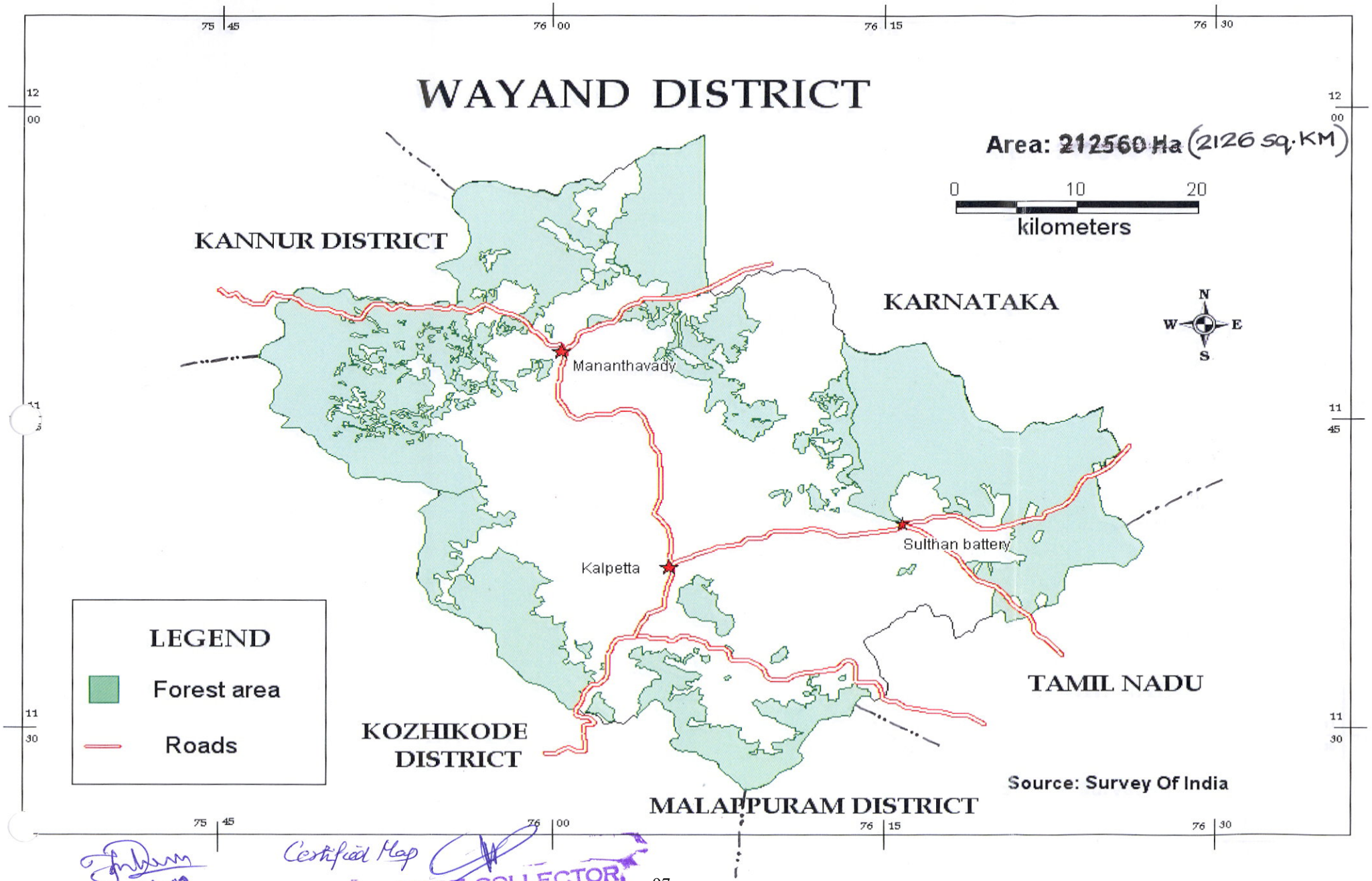
The average plant height of *Wayanad Gandhakasala Rice* cultivar is 150-155cm with lesser no. of tillers (average 6 to 8 tillers) and very long panicles (27-28.4cm) with 105 to 110 small, short bold, awn less golden yellow colored grains.

Wayanad Gandhakasala Rice have 19-21 per cent amylose content and cooks moist and tender and does not become hard on cooling. *Wayanad Gandhakasala Rice* is used for the preparation of special food like Ghee rice, also called *"Neichore*, "a delicacy of the Muslims of Kerala, and is a major Mappilah cuisine. In current days, not only Muslims, but all sections of the society have likings to such preparations leading to a growing demand for small grained aromatic rice. *Wayanad Gandhakasala Rice* is also used for the preparation of Uppuma, Payasam, Puttu and rice flakes (aval). Jains residing in Wayanad area use this rice in their daily food intake. Rice gruel *(kanji)* prepared from *Wayanad Gandhakasala Rice* is used in the diets of infants and invalids due to easy digestibility. *Kanji* made out of *Wayanad Gandhakasala Rice* is locally known as 'Thambaikanji' meaning the Food of Gods. It is also used as a geriatric food. The organic way of cultivation adds to the quality of grains. The straw of this cultivar is highly relished by cattle.

(L) Inspection Body:

Inspection body will be constituted with the following members

1. Director of Research, Kerala Agricultural University, Thrissur
2. Co-ordinator, WTO Centre, Kerala Agricultural University, Thrissur
3. Convener, IPR Cell, Kerala Agricultural University, Thrissur
4. Associate Director of Research, RARS, Ambalavayal
5. Plant Breeder, RARS Ambalavayal
6. Principal Agricultural Officer, Wayanad District
7. Asst. Principal Agricultural Officer, Wayanad District
8. President, Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Wayanad.
9. Secretary, Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Wayanad
10. Agricultural Officer, Krishibhavan, Panamaram, Wayanad district
11. Agricultural Officer, Krishibhavan, Thirunelly, Wayanad district
12. Agricultural Officer, Krishibhavan, Noolpuzha, Wayanad district
13. Three farmer representatives cultivating *Wayanad Gandhakasala Rice* in Wayanad district


WAYAND DISTRICT
Area: 212560 Ha (2126 sq.KM)
0 10 20
kilometers
KANNUR DISTRICT
KARNATAKA
N
W E
S
Mananthavady
Kalpetta
Sulthan battery
TAMIL NADU
KOZHIKODE DISTRICT
MALAPPURAM DISTRICT
LEGEND
Forest area
Roads
Source: Survey Of India
75 45
76 00
76 15
76 30
12 00
11 45
11 30
Certified Map
DISTRICT COLLECTOR,
WAYANAD.

G.I. APPLICATION NUMBER – 191

Application is made by **Kota Doria Development Hadauti Foundation (KDHF),** Sadar Bazaar, Kaithun, District Kota, Rajasthan, India, for Registration in Part - A of the Register of **Kota Doria (Logo)** under Application No.191 in respect of Textile and Textile Goods, not included in other Classes; bed and table covers falling in Class - 24 and Clothing 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.

Applicant	**:**	Kota Doria Development Hadauti Foundation
Address	**:**	Kota Doria Development Hadauti Foundation (KDHF), Sadar Bazaar, Kaithun, District Kota, Rajasthan, India.
Geographical Indication	**:**	**KOTA DORIA (LOGO)** 
Class	**:**	**24 & 25**
Goods	**:**	**Class – 24** Textile and Textile Goods, not included in other Classes; bed and table covers; **Class – 25** Clothing

(A)	**Name of the Applicants**	**:**	Kota Doria Development Hadauti Foundation
(B)	**Address**	**:**	Kota Doria Development Hadauti Foundation, (KDHF), Sadar Bazaar, Kaithun, District Kota, Rajasthan, India.
(C)	**List of association of persons/ Producers / organization/ authority**	**:**	To be provided on request
(D)	**Type of Goods**	**:**	**Class – 24** Textile and Textile Goods, not included in other Classes; bed and table covers; **Class – 25** Clothing
(E)	**Specification**	**:**	

The recognizing characteristic of Kota Doria is the square- check pattern, locally known as the 'Khat' that is present in the base fabric besides any other type of value addition by weaving of any other process such as embroidery, printing, painting, dyeing etc. The Khats are made in the fabric so skillfully that the fabric becomes transparent

The fabric is mainly made of cotton and a silk yarn is different combinations in warp as well as weft. The popular combinations presently in production are as follows

a) Cotton x Cotton
b) Cotton x Silk
c) Tussar Silk x Tussar Silk

A) The Cotton- Cotton variety has 90- 96 'Khats' across the fabric width of 46 inch.
B) Within the Cotton- Silk variety, there are three variations based on the number of 'Khats' in the 46 inch width of the fabric:
1. 300-'Khat' variety: Having 285-300 'Khats' across the width
2. 350-'Khat' variety: Having 325-350 'Khats' across the width
3. 400-'Khat' variety: Having 385-400 'Khats' across the width

As per the traditional standards, in the Cotton – Cotton variety there are approximately 02 Khats found in an inch, both in transverse as well as longitudinal directions. Each Khat has 30 threads in both the directions, thus there are approximately 60 ends/ inch and 60 picks in the fabric.

As per the traditional standards, in the Cotton- Silk variety the number of khats per inch in transverse and longitudinal directions is as follows:

S. No	Variety	Transverse Dimension	Longitudinal dimension
1.	300-khat	5-6(70-84 ends/inch)	5-6(70-84 picks/inch)
2.	350-khat	7-8(98-112 ends/inch)	6-7(84-98 picks/inch)
3.	400-khat	9-10(126-140ends/inch)	8-9(112-126picks/inch)

Each khat in above varieties has 14 threads (i.e.08 of cotton & 06 of silk yarns) both in transverse & longitudinal directions, hence number of ends & picks per inch can be ascertained.

(F) Name of the Geographical Indication :

KOTA DORIA (LOGO)

(G) Description of Goods :

Kota Doria is a fabric famous for its unique square check pattern and its main recognizing factor. The check pattern itself is of a wide variety. The main distinguishing feature for the true description of Kota Doria fabric is the presence of any of the 'Khat' patterns in the fabric.

Kota Doria Sari:
As per the **Handlooms (Reservation of Articles for Production) Act, 1985 (22 of 1985)** Kota Doria Sari was also included in the range along with other handloom saris exclusively reserved for the production by handlooms. The description of Kota Doria Sari as per the above Act is reproduced as follows:

Kota Doria Sari is a plain woven cloth either grey or bleached which is also jointly characterized by the following:

- Is manufactured wholly from cotton or predominantly cotton along with combination of any other fibre.
- Has corded effect obtained by cramming either the warp or weft threads or both or by using threads of different counts to form stripe pattern warp way or weft way.
- Has a width ranging from 90 centimeters to 140 centimeters (inclusive of selvedges).
- Has length ranging from 5 meters to 8.5 meters, and
- Is commonly known by that name.

Kota Doria Suits & Dupattas:
The Kota Doria suits and dupattas are plain woven cloth either dyed or un-dyed using cotton, silk zari and / or other fancy yarns in the warp or the weft or both with or without booties for the ground and/ or pallu and neck- line or any other value addition thereupon. The fabric is usually 36 inches to 46 inches wide and length of 2.5 to 7.5 meters, depending upon the inclusion of the duppatta in the suit length or other wise.

Kota Doria Dress Material:
Kota Doria dress material is plain woven or with fancy yarn insertions/ motifs woven or any other value addition thereupon. Its width is usually 36 inches to 46 inches and it can be plain bleached/ unbleached or colored. Its length can be usually in a cut size of 11.5 meters.

Kota Doria Furnishings:
Kota Doria furnishings can be plain or dyed or with motifs and or other fancy yarn insertion along the warp/ weft way. The fabric may be having plain single count cotton yarns or twisted 2/ 120s etc. Kinds of cotton yarns in varying combinations with silk or other yarns and the characterizing features would be the square check pattern and the use of cotton and silk yarns in the fabric construction. The width may very from 46 inches and upwards.

(H) Geographical Area of Production and Map as shown in page no. 109

Kota Doria is made in many villages located in Kota, Bundi and Baran district of Rajasthan. However, the oldest and biggest concentrations of weavers of Kota Doria are:

- Kota, Kotsuwan, Kansuwan, Mandana, Sultanpur & Sangod in Kota District.
- Mangrol, Siswali & Anta in Baran District and
- Bundi, Keshoraipatan, Kepren & Roteda in Bundi District.

Sl.No.	Name of location	District	Latitude	Longitude
1.	Kota	Kota	25.183^0N	75.833^0E
2.	Kaithun	Kota	25.133^0N	75.983^0E
3.	Sultanpur	Kota	25.283^0N	76.167^0E
4.	Kotsuwan (Digod)	Kota	25.217^0N	76.083^0E
5.	Mangrol	Baran	25.333^0N	76.517^0E
6.	Siswali	Baran	25.350^0N	76.350^0E
7.	Bundi	Bundi	25.450^0N	75.650^0E
8.	Kapren	Bundi	25.417^0N	76.067^0E
9.	Keshoraipatan	Bundi	25.300^0N	75.933^0E
10.	Mandawara	Kota	25.367^0N	76.150^0E

(I) Proof of Origin (Historical records):

Kota Doria is known after the erstwhile Kota State from where it originated and is still being made in the villages of this erstwhile State or where the Ansari weavers' community is present in sufficient numbers. The evidences of weaving activity in the region have been recorded in several State and British journals. The weaving technique as well as the product (from fine muslin to doria muslin and ultimately the famous check pattern which has become popular as Kota Doria) evolved over a period and in the modern times became famous as Kota Doria after place of its origin.

❖ *About Kota & Hadauti*

Modern Kota City and Kota District of Rajasthan have been derived from parts of the erstwhile Kota State. The former State of Kota formed the Eastern part of present Rajasthan. It was surrounded by the former Indian States of Jaipur and Gwalior in the North, Bundi in the West, Udaipur, Jhalawar, Indore and Gwalior in the South and Khilchipur, Rajgarh and Gwalior in the East. Though Kota started as an offshoot of Bundi in A.D.1624, it ultimately superseded its parent in power, economy and cultural grandeur. At the time of the integration of the Indian Sates to the Indian Union in 1948, it was the 5^{th} largest state (in revenue) in the newly formed State of Rajasthan.

The earnest region of Rajasthan is widely known as 'Hadauti' or the Land of the Hadas. Hadauti comprises the old Hada States of Bundi and Kota, which in modern times means Bundi, Kota, Baran and Jhalawar. Hadauti is a region of large expanse of fertile plains having rich black cotton soil and of ranges of low hills and river gorges covered with thick forest. The land slopes gently from the South towards the North and as the river Chambel traversing across it from the south to the North, with its many tributaries. It is the only perennial river in the largely desert State of Rajasthan, draining itself into the Yamuna. Together with a bountiful rainfull, these waters provide a prosperous and verdant look to this land, which is the main granary of Rajasthan.

❖ *About the 'Hadas'*

The Hadas, who are one of the major branches of the Chauhan race, trace their origin according to mythology, from Mt. Abu in the South Aravalli hills. The legend goes on to state that a 'Yajna' was performed there by Saint Vashishtha to rid the world of evil and out of the sacred pit of fire, sprang forth four warriors, the last being the most powerful one, called Chatturbhuj Chauhan. The chauhans who are of the Agnikula race of the Kshatriyas are one of the important races of the 36 royal races of India. They established themselves near 'Shakhambari'(the name of the present day Sambhar town approximately 50 miles South of Jaipur) in around AD 600 and soon took Ajmer and forged the powerful kingdom of 'Sapadlaksha' (a powerful state comprising parts of the present day Rajasthan, Haryana, Punjab, Uttar Pradesh and East Delhi which continued till AD 1192). The high-noon of the Chauhan Empire was under the great Prithviraj III, the last Hindu king of Delhi. The empire broke up after his disastrous defeat at the Battle of Rerrain in AD 1192 against the Sultan Muhammad Ghori. The Hadas are the direct descendants of the Sakhambari- Nobal line of Chauhans. In due course they migrated and settled in the hilly vastness or the 'Pathaar' between the plains of Mewar and those that of later day Hadauti.

❖ ***About Kota Doria Weaving***

The beginning of this exquisite fabric is mired in mystery and not much is known in written from about the exact date/ period of the initiation of Kota Doria in its present form. Its origin as a craft is shrouded in mystery and several tales passed on by way of mouth can be heard. The word 'Masuria' added to the Kota saris also adds to the mystery. While a section of believers attribute this name to its origin from Mysore, others attribute the name to the initial use of Mysore Silk in the saris. Another version and a more plausible explanation for the use of word 'Mysoria' is given by noted textile experts Ms. Rita Kapoor Chishti and Ms. Amba Sanyal in their famous book , 'Saris of India' wherein they opine that the Kota Masuria saris come in a wide variety of checks in pure cotton as well as cotton and silk, with the finest resembling the 'Masoor' lentil seed. This reference clearly removes the wrong notions that the word Masuria has got anything to do with Mysore. It actually talks of the fineness of the fabric, especially for the 350-400 khat patterns wherein the finest check resembles the 'Masur' lentil seed.

One of the beliefs is that the Doria saris were originally woven in Mysore, and from there, some weaver families were brought to Kota due to the patronizing efforts of the then Prince, Rao Kishore Singh (1684-1695). The weavers settled in Kaithun in the early 17th Century and gradually grew in number. As marriages took place from one village to another, the girls, adept at weaving, started the work in their new homes too. Slowly the interest of other members of the family also grew and this resulted in the spreading of the craft from a few families to several households in a large number of villages in the vicinity.

However, the historical records of period even earlier than the period of Rao Kishore Singh cite the presence of weaving activity in Kaithun, the earliest weaving centre of Kota Doria. References of fine cotton weaving and growing of cotton in the area are reported in several documents ranging from the State time documents to the British accounts of the area. Hence it can be firmly established that since cotton and indigo were grown in the region since quite some time and the reference of Kaithun, the main weaving centre, is available even in the 13th Century records of Bundi State, it would be out of turn to accept that there was no weaving activity prior to the period of Rao Jagat Singh Rao Kishore Singh.

It would be important to provide a clear picture of the Hadauti region also to reaffirm the claim that weaving has been a tradition of this region and a lot of this can be attributed to the geographical conditions of the area. Unlike other parts of the state, where coarse- yarn weaving is done, due to the hot and dry climate, the presence of black soil for growing of cotton and the lush natural forest cover of the area, all provide conducive conditions for fine count weaving of cotton. The higher incidence of rainfall in this part of Rajasthan is a well known fact. In fact, it may not be out of place to mention that in this part of Northern India, fine count cotton weaving is present only in three centres, i.e. Chanderi, Maheshwar and Kota and of these Kota holds a special position due to the 'Khat' pattern that it has mastered over the years.

Some of the historical evidences that can be cited to substantiate the presence of cotton growing and cotton weaving in the are given below:

1. **'**Kota Rajya Ka Itihaas' by Mathura Lal Sharma
2. Gazetteer of India Vol.3 Chapter IV- page 202
3. Gazetteer of India Vol.15- page 425
4. Gazetteer of India Vol. 15- page 131
5. Gazetteer of India Vol. 15- page 120
6. Gazetteer of India Vol. 15- page 133
7. Reference of Mangrol weavers switching over to terricot cloth weaving from Kota Doria weaving in 1960 is given in one of the State Government publications, 'Vastra Vidhaan'.
8. Reference of cotton cultivation even in recent times and the fame of Kota Doria saris are given in the articles written by Mr. A.B. Lal in the State Govt. Publication 'Rajasthan- Sujas Sanchya'.
9. The district Gazetteer of Kota, 1971 in Chapter V (Industries) talks about the Old Time Industries and makes a clear mention of cotton weaving, the muslins of Kota having more than local reputation and the use of gold or silver threads while still on loom.
10. The same Gazetteer mentions in the chapter or cottage and village industries that Kaithun and Mangrol have been famous for the Masuria fabrics which are white or coloured muslins with gold or silver thread introduced while on the loom itself.
11. The famous book- 'Hand – woven fabrics of India' by Jasleem Dhamija and Jyotindra Jain refers to the presence and fame of the Masuria/ Kota Saris being woven in Kaithun, one of the few fine weaving centres besides Dholka, Khambat and Por Bandar in Gujarat.
12. Famed writer of textiles books, Linda Lynton has refers to Kota Doria Saris as one of the nationally popular hot-season garments because of very light weight.

(A) Method of Production :

Kota Doria fabric being produced in the region is produced on very traditional and age-old pit looms with a throw shuttle technique. All the processes involved from yarn to fabric stage are also carried out manually. These processes are summarized as follows :

(i) Winding :

Cotton as well as silk is obtained from the traders of Kaithun, Kota & other parts of the country in the form of hanks (lachhis). These hanks require the process of winding before being used on the loom for weaving. Winding is the process of transferring the yarns from the hank onto bobbins for warp and pirns/sirkies for the weft. Winding is also done for zari and other threads used for value addition during the weaving process. Winding is carried out by using a small swift/charkha and a rotor wheel attached to a harness of conveyor belt at the other end. Rotation of wheels by hand results in the rotation of the spindle and thereby the thread from hank mounted on swift is transferred and wound on to the spools. Winding also requires enough skill, as withdrawal of yarn from the spool should be easy.

(i) Warping :

Warping is the process of getting a predetermined length of warp having desired number of the threads as required for the whole width of the fabric. The warping method generally being used for Kota Doria is known as Peg Warping (also known as Ground / street warping), since wooden pegs are used in the process. These wooden pegs are placed along the whole length of the yarn so that a continuously crisscrossed set of two yarns may be obtained for the weaving process (The criss-crossing later on helps in finding out the broken yarn on the loom during the course of weaving). These wooden pegs are placed below a thick rope tied to a pair of iron pegs (dug into the ground fully stretching the rope) on each end, and it is the length of the rope that determines the length of the warp being prepared. Generally warp of 31-36 yards is prepared at a time for producing 5 saris of 6 yards each (or 4 saris with blouse, of 7 yards each, depending on the requirement) keeping the margin for shrinkage and wastage etc.

At least two persons are required for the entire process. While one person has to twist the yarns with the help of a heald (locally called as 'Hattha'), which has the yarns passing through it, the other person has to hold the creel (locally called as 'Pinjras') consisting of the spools of the yarns. So one – person keeps on holding the creel of yarn, both of them take turns round the pegs to achieve the desired number of yarns in the warp. The number of rounds to be taken between the two ends of the rope is determined by the number of 'khats' desires in the sari and the capacity of the creel being used. Since each khat is made of 8 cotton and 6 silk yarns in it, hence an original Kota Doria sari of 300 Khats has 2400 cotton and 1800 silk yarns in the warp. The warp thus prepared is then collected in the form of ball.

Usually the activity is done in the open spaces or by-lanes near the house of the weaver, either by the non-weaving family members or by other hired persons, usually old-aged women of the village. Warping of cotton and silk yarns as well as that of Zari is carried out separately.

(iii) Dyeing:

Dyeing is the process of coloring the material (fibre, yarn of fabric) in the desired colour and shade. For Kota Doria, dyeing of both cotton and silk yarns is carried out for the readied warp as well as the hanks for the weft. The dyeing process is completely manual presently. Water is heated in a pan/suitable utensil, dyes pre-dissolved are added and the yarns are then dipped and dyed till the desired shade is achieved. The prevalent dyeing processes for the various shades are VAT, Napthol, Direct and Reactive. However, the most commonly used process is direct dyeing owing to ease and similar retention on silk as well as cotton yarns. Sometimes they are tied and then dyed in different shades to produce the tie-dye effect in the fabric.

***(iv)* Sizing :**

Sizing is mainly done for imparting the yarn enough strength, surface glaze and stiffness so that it can withstand the beating of the reed during the weaving process and also maintain the stiffness necessary for even weaving and a proper look of the sari once the weaving is complete. This is important since no further ironing/finishing of the sari is done in the cluster.

Sizing is required and done only for cotton yarns (being very fine single yarns) and is done by using the paste of rice (’Maandi’) and the juice of a special wild variety of onion available as a natural vegetation in the nearby jungles of the area. This onion juice renders a soft feel to the yarn and it retains a luster and soft feel even after Sizing is done by workers belonging to Kota and Kaithun. The process involves painstakingly brushing the yarns stretched along a stand, using the sizing paste and special brushes for this activity. These brushes are made up of a particular type of leaves.

(v) Drafting-Denting-Piecing :

All the individual threads of cotton and silk are drafted through the double clasped country cotton heal (locally called as ‘Ranch’) and dented through the dents of the bamboo/steel reed (locally called as ‘Fani’) in a particular pattern in order to produce a check pattern popularly known as Khat in combination with weft threads. The pattern of laying the threads for a **Khat** is very peculiar, which is four threads of cotton, two threads of silk, both in warp way and weft way for Cotton Silk Variety. Silk threads are taken one by one through the dent of the reed whereas two threads of cotton pass through one dent of the reed forming a very compact check pattern. Fine silk yarns make the transparent background, while the relatively coarser cotton yarns from the check locally named as Khat, which are woven across the width of the saris. The Khats so formed does not get flattened even after putting the fabric in water. Very fine bamboo or steel reeds generally from 110 & above numbers are used depending on the number of Khats required in the whole width of the fabric.

Since drafting and denting of all the individual threads consumes a lot of time, an alternative method of **Piecing** is generally being used, in which all the individual threads of the newly prepared ball warps of cotton & silk are tied with corresponding threads of the leftover threads of previous warp. Same method is also adopted when preparing cotton x cotton or tussar silk variety of the fabric.

(vi) Weaving:

After the piecing of the threads the ball warp is hanged at the other end of the loom and the loom is made ready to start weaving. The warp threads are kept in such a way that all individuals threads are in equal tension to facilitate weaving.

The weaver sits in front of the loom keeping his/her feet in the pit to operate the treadles/jacquard/dobby and /jala for forming the shed through which the horn shuttle is thrown by hand (throw shuttle looms) to pass across the width of warp. Beating of the entered pick to the fell of the cloth by reed (fixed in the slay hanging from the ceiling, tied with strings) is done so skillfully that, almost uniform size of check patterns (popularly known as Khat) are produced in the fabric.

(vii) Designing :

The designing of Kota Doria Sari is mainly based on the extra-weft pattern of weaving. For the purpose of producing floral patterns, booties or any other intricate designs in the pallu, border and body of the fabric, jacquard/dobby/jala are used. The desired paper designs are first made on the graph papers and then transferred to the fabric through above technique. The setting up of design on the

'Jala' of the loom is also a specialized activity and so is that of making of the graphs for the designs. Dobbys of up to 16 plates and jacquard of upto 120 hooks are generally being used in Kaithun. Dobby is mainly used for ground motifs and for fine small borders in the sari. On the other hand, jacquard is being used for making exquisite borders of the saris and pallus of the saris and for that matter any bigger motifs that are required in the fabric of any purpose. The method of using small spindles, locally known as 'tills' or 'sirkies' for making the motif on the ground/pallu/border of the sari makes the designing process quite time-consuming but at the same time providing a very fine finish to the sari.

❖ ***Raw Material in Use***

The main components being used in the production of Kota Doria are yarns made from natural fibers viz. cotton and silk. Besides, Zari (of pure gold-silver) PMC yarn, jute and other fancy yarns are also used in lesser amount for motifs, weft insertions or other ornamental purposes.

- **Cotton yarn:** 80s to 120s counts (mainly of combed quality) are used both in warp way and weft way.

- **Silk Yarn:** 20/22 D to 13/15 D Silk is used both in warp way and weft way. The silk yarns are not degummed alike other handloom centres and this provides a sheer texture to the fabric.

(K) Uniqueness :

Technically speaking, it is not possible to create a structural pattern in a fabric using simple two-pedal loom. However, it is the fine skill of the weavers of this region that a structural pattern is created in Kota Doria fabric with just two pedals, the square check pattern the 'Khat'' While the cramming of the yarns is mechanically achieved in the reed of the warp way, it is only the inherited skills of the weavers that helps them throw silk as well as cotton yarns along the width according to the design requirements and beat the cotton yarns double and keep the silk yarns lightly beaten to involve the square check. It is this inherited skill and the evolving 'Khat' pattern that is so unique that no words would be sufficient to explain it.

The process of sizing is unique a practiced in Kota Doria and is done by using the juice of a special wild variety of onion available as natural vegetation in the nearby jungles of the area. This onion juice renders a soft feel to the yarn and it retains a luster and soft feel even after several washes. Sizing is done by the traditional laborers available for this purpose in Kota and Kaithun. The process involves painstakingly brushing of the yarns stretched along a stand, using the sizing paste and special brushes for this activity. These brushes are made up of the particular type of leaves. Thus the sizing process of Kota is quite unique and traditions. It also involves extensive use of material of local natural vegetation for giving the distinction finish to the sari and this is a process which cannot be replicated elsewhere. It is unique and characteristic of Kota and needs to be protected.

Uniqueness of Kota Doria lies, besides the Khat pattern, in being a fabric with soft gossamer feel, sheerness and yet a corded texture at the place where the cotton yarn are crammed together. Such a variety of feels within the same fabric is very unique. Moreover, this lends the fabric a fantastic feel and fall. The weaving texture is such that one can assess the count of the yarn.

The Khat pattern of Kota Doria is unique and is the main characteristic of the fabric. The 'Khat' is itself the uniqueness of the fabric and thus needs to be protected. This unique feature owes its origin to the inherited traditionals skills of the weavers and the special finishing process given to yarn during sizing.

Kota Doria is also unique in the sense that it is perhaps the only fabric, which are uses cotton as well as silk in predefined proportions in the warp as well as weft of the fabric. This lends the fabric a very unique kind of fall and sheerness.

In spite of using silk without resuming it, Kota Doria fabric does not get brittle and has a long life. This is because of the 'Khat' pattern, a structure that ensures the application of stress only on cotton yarns and thus the silk just provides the sheerness and good fall. Thus the comfort and longevity of the fabric of Kota Doria is quite unique.

(L) Inspection Body :

Kota Doria Development Hadauti (KDHF) has representatives from the producing villages and they have been nominated by the weavers of these villages. Moreover the KDF membership includes master weavers and other stakeholders by the weavers of these villages. The quality of Kota Doria; its genuineness would be monitored by the village level committee formed by the organisation. The involvement of the local design/technical institutions expert may also be done for the yearly meeting of the inspection committee and wherein each product would be stamped.

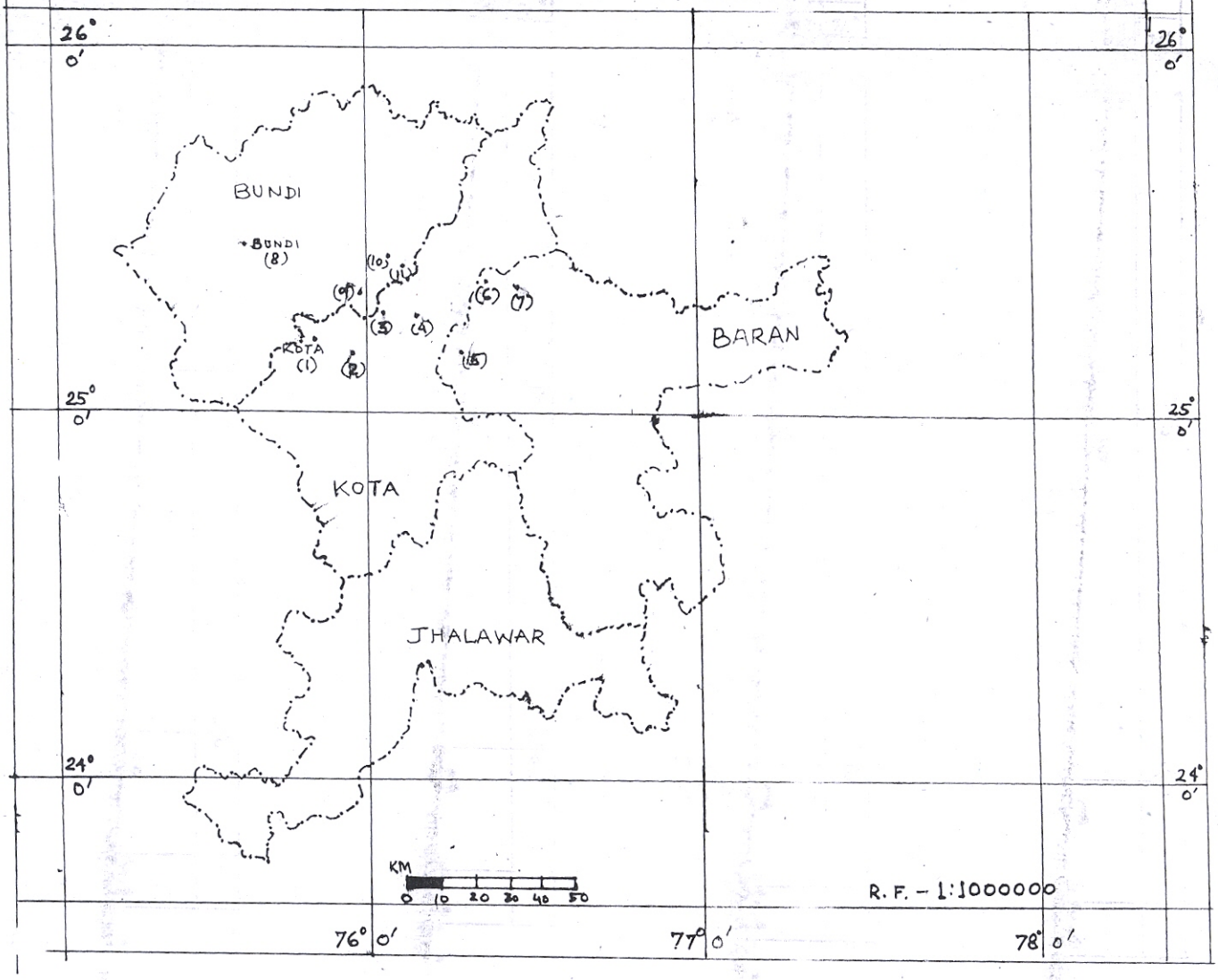
(M) Other :

The production of Kota Doria involves number of processes, which require high level of skill, patience and concentration, but all the stakeholders involved in the production are carrying on their age- old traditional craft and passing on the skill of their new generation.

GOVERNMENT OF RAJASTHAN

GIVEN OFFICE OF SENIOR GEOLOGIST KOTA

OCATION MAP OF KOTA DORIA PRODUCING CENTRES IN KOTA, BUNDI AND BARAN DISTRICTS OF RAJASTHAN



INDEX

S.N.	PLACE	LAT.	LONG.
(1)	KOTA	25°11′	75°50′
(2)	KAITHUN	25°08′	75°59′
(3)	KOTSUWAN	25°16′	76°02′
(4)	SULTANPUR	25°17′	76°10′
(5)	ANTA	25°09′	76°18′
(6)	SISWALI	25°21′	76°21′
(7)	MANGROL	25°20′	76°31′
(8)	BUNDI	25°27′	75°39′
(9)	KESHORAI-PATAN	25°18′	75°56′
(10)	KAPREN	25°25′	76°04′
(11)	ROTEDA	25°23′	76°08′

PREPARED BY	CHECKED BY	
J. F. A.	GEOLOGIST	SR. GEOLOGIST

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 or reputation based upon the climatic or production characteristics unique to the geographical location.

Examples of possible Geographical Indications in India :

Some of the examples of possible Geographical Indications in India include Basmati Rice, Darjeeling Tea, Kanchipuram 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 unauthorised 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 interests of the producers.

The application should be in writing in the prescribed form.

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

Who is a 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 authorised user, with respect to a registered Geographical Indication. He should apply in writing in the prescribed form alongwith 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 a 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 authorised users can initiate infringement actions.

- The authorised users can exercise the exclusive right to use the Geographical Indication.

Who can use the registered Geographical Indication?

Only an authorised 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 Indications is not renewed, it is liable to be removed from the register.

When is a registered Geographical Indication said to be infringed?

- When unauthorised 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 authorised 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 authorised user dies, his right devolves on his successor in title.

Can a registered Geographical Indication or authorised 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 an authorised 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?

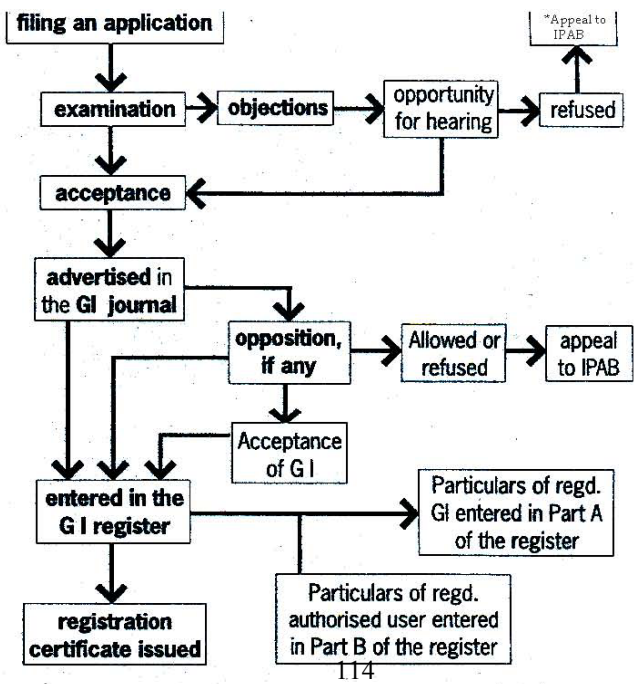
A trade mark is a sign which is used in the course of trade and it distinguishes good or services of one enterprise from those of other enterprises. Whereas a Geographical Indication is used to identify goods having special characteristics originating from a definite geographical territory.

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 Register 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 a geographical indication and an authorized user which is illustrated below :



NOTICE

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