

FORM GI-1(A)

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Application for the Registration of a Geographical Indication in Part A of the Register, Section II (1), Rule 23(2)

1. a) Name of the applicant/applicants:

- 1) Kerala Agricultural University, Thrissur
- 2) Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Wayanad

b) Address:

- 1) Kerala Agricultural University, Kerala Agricultural University (PO), Thrissur Dist, Kerala-680656, India.
- 2) Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Rural Agricultural Wholesale Market, Sulthan Bathery, Wayanad-673592, Kerala, India

c) List of Association of Persons /Producers:

All rice farmers of Wayanad cultivating Jeerakasala Rice.

d) Type of goods:

Wayanad Jeerakasala rice and related rice products falling in Class 30

e) Specification:

Jeerakasala 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. Jeerakasala rice differs from Basmati rice due to growth habit, areas of original cultivation, physico-chemical properties of grains and grain shape.

The major grain characters are given below:

1. Kernel length	4.7 mm-5.8 mm
2. Kernel shape (l/b)	2.32-2.73
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

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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 plants are tall with long duration 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 plant characters are given below:-

Plant height	130-140 cm
Effective tillers	7-8
Panicle length	27.0 -28.0cm
Grains per panicle	110.0-115.0
Duration	180-190 days

f) Name of the geographical indication and particulars:

Wayanad Jeerakasala Rice



Nestled among the mountains of the Western Ghats, lies Wayanad, one of the loveliest hill stations of Kerala. This green paradise located at a distance of 76 kms from the seashores of Kozhikode (Calicut) lies at a height of 700-2100 m above mean sea level. The geographical position of Wayanad is peculiar and unique. Nature has blessed this part of the country with mist clad mountains and sylvan valleys.

The name Wayanad is believed to be derived from the word *vayal nadu* meaning the “land of paddy fields”. Vayal lands are essential for paddy cultivation. Of the different categories of *vayals*, *kundu vayals* are suited for cultivation of traditional varieties like *Gandhakasala*, *Jeerakasala*, *Mullan channa*, *Poothadi kayama* etc. *Kundu vayals* are flat fields located in the valley bottoms characterized by standing water

throughout the rainy season. The soil is clayey loam and hence has better water retention capacity. Moreover water is retained here for a longer period due to lack of proper drainage facilities.

Jeerakasala is the famous non-basmati aromatic rice of Wayanad. *Gandhakasala* is suitable for transplanting during *Nancha (kharif)* season (May-June to Oct.-Nov.). The low temperature regime prevailing in this area encourages cultivation of scented rice varieties. The ideal average maximum temperature for expression of aroma in rice is 22°C to 26°C during flowering and dough stage of paddy. The maximum temperature recorded at Wayanad during this stage is 24.4°C to 26.8°C which is ideal for expression of aroma in scented rice. Areas of having an altitude up to 1000 m above MSL is ideal for cultivation of *Jeerakasala*

g) Description of the goods:

The botanical name of rice plant is *Oryza sativa*. *Jeerakasala* is the traditional aromatic rice cultivar of Wayanad. The average grain yield of *Jeerakasala* is 2.0-2.7 t/ha. This is a long duration (180-190days) tall variety with weak straw and is susceptible to lodging and is tolerant to pests and diseases. The average plant height of *Jeerakasala* cultivar is 130-140cm with less tillering capacity (average 7 to 8 tillers) and very long panicles (27-28.0cm) with 110 grains/panicle that are partially short awned, medium in size and shape (slightly elongated) with golden yellow colour for the hull. *Jeerakasala* rice differs from Basmati rice due to growth habit, areas of original cultivation, physico-chemical properties of grains and grain shape.

The major grain characters are given below:

1. Kernel length	4.7 mm-5.8 mm
2. Kernel shape (l/b)	2.32-2.73
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
!4.Chalkiness	Less than 10%
15. Amylose content (%)	20(intermediate)

h) Geographical area of production and map:

Wayanad lies (in the State of Kerala, India) between North latitude 11° 27' and 15° 58' and East longitude 75° 47' and 70° 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.

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

Geographical map for area of production is provided separately.

i) Proof of origin:

Mention about the traditional tall *indica* aromatic cultivars like *Jeerakasala* and *Gandhakasala* are noted in the books written on the basis of old verbal recitations in Malayalam called "Krishippattu" describing the whole agricultural practices followed in *Malayalakkara* during the 17th century. Of the several books written on the basis of "Krishippattu" one is 'Krishigeetha-Chollum Vayanayum', a folkloristic study of an 18th century traditional and primitive agriculture in *Malayalakkara* compiled by the Nattarivu Padana Kendram, Kanimangalam PO, Thrissur (Ed. by T.T. Sreekumar, C. R. Rajagopalan and Vijayakumar Menon). In this book it is mentioned that the Pulluva tribes in their festival rituals and songs praise all their favorite rice varieties. And in "Kattappattu," a Pulluva song for praising paddy bundles, there is mention about *Jeerakasala* (Krishigeetha, p83; copy enclosed).

Similarly in the "Vithupattu," the song of seeds in "*Kothaamooryattom*" in North Kerala done for good yield of crops and dairy in the coming crop season, there is mention about *Jeerakasala* (Krishigeetha, p83; copy enclosed).

This variety also finds its prime place in the social and cultural thread of the tribal communities of Wayanad especially that of Kurichiya and Kuruma communities. It is mentioned that traditionally Kurichiyas use *Kundu vayals* for the cultivation of *Gandhakasala* and *Jeerakasala* along with other medium duration rice varieties (G. Girigan, N. Anil Kumar and V. Arivudai Nambi, 2004. "Vayals: a traditional classification of agricultural landscapes". *LEISA INDIA*, December 2004. p27-28; copy enclosed)

Protection of Plant Varieties & Farmers' Rights Authority, Govt. of India honoured the Kuruma and Kurichya Communities of Wayanad 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, copy enclosed).

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.

Jeerakasala, 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*. *Jeerakasala* being a medium 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*.

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 organically 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.

Processing: After drying to optimum moisture content, the raw grains will be either hand pounded or milled in rice mills. Milling with rubber hullers gives better head rice recovery. Excessive drying causes breakage of the grains. Parboiling of paddy reduces the aroma and quality and hence is not generally adopted.

k) Uniqueness:

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.

Monthly rainfall (mm) in Wayanad District

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	July	Aug.	Sep.	Oct.	Nov.	Dec.
Rainfall	13.6	13.6	0.3	118.1	58.4	607.9	378.1	626.0	249.9	122.4	43.3	1.0

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, Adiyar, 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 is eco-friendly. The distinctive, exclusive and rare qualities of *Jeerakasala* 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.

Jeerakasala grains are slightly elongated and have intermediate amylose content. *Jeerakasala* cooks moist and tender and does not become hard on cooling. The grains are 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. *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 (*kanji*) prepared from *Jeerakasala* is used in the diets of infants and

invalids due to easy digestability. 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 *Jeerakasala* in Wayanad district

m) Other:

A current book on "A Treatise on the Scented Rices of India" co edited by Dr. R.K. Singh and Dr. U.S. Singh (Kalyani Publishers, N. Delhi) suggests that in the WTO regime there is an urgent need for selecting pure traditional varieties of scented rice and registering them as Geographical Indications.

Dr. Ronald Cantrell, the former Director General of International Rice Research Institute, Philippines suggested that there is a growing demand for scented rice in the global market and hence there is a need for policy reform to promote the traditional aromatic varieties so that the farmers could get remunerative prices in the global market.

The monthly demand of aromatic rice in Wayanad district is more than 150 t. Similar is the case of all other Districts of Kerala. At present the demand is met by bringing aromatic rice from neighboring states like Andhra Pradesh, Tamilnadu and Karnataka even though they are of less quality especially aroma.

Along with the Statement of Case in Class 30 in respect of Wayanad Jeerakasala rice and rice products in the names of Kerala Agricultural University and Wayanad Jilla Sugandha Nellulpadaka Karshaka Samithi, Wayanad whose addresses are

1. **Kerala Agricultural University, KAU P.O., Thrissur - 680 656,**
Kerala, India

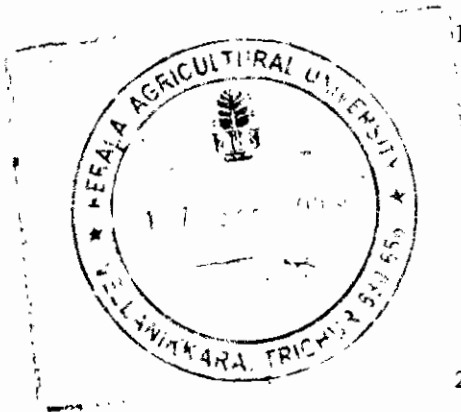
and

2. **Wayanad Jilla Sugandha Nellupadaka Karshaka Samithi,**
Rural Agricultural Wholesale Market, Sulthan Bathery,
Wayanad-673592, Kerala, India

who claim to represent the interest of the producers of the said goods to which the geographical indications relates and which is in continuous use since time immemorial in respect of the said goods.

2. Other necessary particulars called for in rule 32(1) are given in the statement of case.
3. All communications related to this application may be sent to the following address in India.

Director of Research
Kerala Agricultural University
KAU (P. O), Thrissur - 680 656
Kerala, India



1. Signature

DR. JOBI V. PAUL

Name of the signatory in block letters

Registrar,
Kerala Agricultural University,
Vellanikkara,
Thrissur-680 656.

2. Signature

HARIDAS.K.M

SECRETARY

Name of the signatory in block letters

