Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 166 dated November 30, 2022

G.I. APPLICATION NUMBER – 668
Application Date: 09.10.2019

Application is made by Pushpanjali Gramodyog Sewa Samiti at Shukulpur, Dahilamau, District: Pratapgarh, Uttar Pradesh, India for Registration in Part A of the Register of **Pratapgarh Aonla** under Application No. 668 in respect of Aonla falling in Class – 31 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

A) Name of the Applicant : Pushpanjali Gramodyog Sewa Samiti

B) Address : Pushpanjali Gramodyog Sewa Samiti, Shukulpur, Dahilamau, District: Pratapgarh, Uttar Pradesh, India.

Facilitated by:
Department of Agriculture and Farmers Welfare, Government of Uttar Pradesh.

C) Name of the Geographical Indication:

PRATAPGARH AONLA

D) Types of Goods : **Class 31** – Aonla

E) Specification:

Pratapgarh Aonla has a very good reputation, uniqueness, historical origin and geographical existence in Pratapgarh, Rai Bareilly, jaunpur, Varanasi and Sultanpur. Pratapgarh Aonla tree, also known as Amalaki or Indian Gooseberry, is a small tree that is indigenous to India. It produces fruit that has been used in Ayurveda both as a food and a medicine for thousands of years.
Predominantly three Variety of Aonla are grown in Pratapgarh region and which are as follows:

Banarasi:
The tree has spreading growth habit, fruits are large in size (48.2g), conical at apex, lobed, skin smooth, thin semi translucent and whitish yellow to straw yellow in colour. Segments raised in three parts with 6 strips. Flesh whitish green. Fiber content 1.4%. Fruit have poor keeping quality. Shy bearing cultivar having high sex ratio hence, not suitable for commercial growing. Susceptible to necrosis.

Hathijhool (Francis):
This tree has drooping branches hence, it is known as 'Hathijhool'. Cropping is medium, fruits are large (45.8g), flattened oblong and greenish white in colour. Segments 6 and distinct, solid and thick moderate in fiber content (1.5%). Ascorbic acid

content is lower than the early maturing

group. Richest in iron content. Fruits of this cultivar are highly susceptible to necrosis. Hence, it is not ideal variety for commercial growing.

Chakaiya:
The tree has upright growth habit and bears profusely. Fruits are small to medium sized (33.4g), flattened and whitish green in colour. Segment six and not distinct. Flesh whitish green. Fibre content is highest (2%). Ascorbic acid content is 789m/100g and pectin content 3.4%. The fruits have strong attachment hence premature dropping is not a problem in this cultivar. Keeping quality is moderate. Most suitable for making pickle and shreds. Though this cultivar has small sized fruit, high fibre content and start its bearing late yet occupies maximum area and gaining popularity for commercial growing. The fruits are free from necrosis.

Pratapgarh has risen in ranks as the top producer of aonla fruit. Pratapgarh Aonla cluster is unique in the sense that it does not limit only to industrial processes but has strong linkage with the horticultural and agricultural pattern of the area.

It is a multipurpose fruit that is extremely rich in Vitamin C, helps cure gastrointestinal disorders and acidity. The irregular food habits and abnormal intake of tea, coffee, smoking articles and food sweet, sour, spicy and oily food may cause acidity. The aforesaid food habits also affect physiological factors in the human body, which leads to anger, grief and depression. The regular intake of Anola helps the body to fight against the above-mentioned health issues. It is said to encourage youth and liveliness.

Aonla is the wonder plant, a unique gift of Mother Nature to mankind. Its fruits are the richest source of Vitamin C. It holds the special reputation of being the most powerful rejuvenating herb. Regular use of Alma strengthens the liver and prevents the storation of some of the toxins which are stored in the liver by regular uptake of painkillers, antibiotics, medication and alcohol consumption. Accordingly Anola acts as a good detoxifier and helps to purify the blood.

F) Description:

Botanical description of the Pratapgarh Aonla
Botanical Classification:

Kingdom	:	Plantae
Division	:	Angiospermae
Class	:	Dicotyledonae
Order	:	Geraniales
Family	:	Euphorbiaceae
Genus	:	Emblica
Species	:	officinalis Geartn

Variety: Predominantly three Variety Aonla are grown in Pratapgarh region, which are as flows:

(i) Banarasi
(ii) Chakaiya
(iii) Hathijhool (Francis)

Tree: Aonla is a medium sized, much-branched tree occupying a height of 10-20 m. In the tropical region, it is supposed to be an evergreen tree but behaves as a deciduous tree due to complete defoliation of leaves. However, before dropping of determinate shoots, side buds initiate to develop determinate shoots again in February-March. The

tree bark is glossy and it cracks irregularly.
Stem: It is smooth, greenish grey to brown, exfoliating bark, which peels off in thin flakes like that of guava.

Branching: Aonla tree is characterized by phyllanthoid branching habit with two types of shoots. On the basis of growth characteristics, these have been characterized as long (indeterminate) and short (determinate) shoots. These are also referred to as branch and branchlet. The indeterminate shoots are longer and continue to put new growth in the season. These shoots do not fall from the tree and also do not bear flowers, irrespective of the period of their emergence. While on the other hand, determinate shoots appear on the nodes of indeterminate shoots and their number at each node may vary from 3 to 5 in different cultivars. These determinate shoots bear small sized (10-13 mm length, 2-3 mm width) leaves, arranged so closely that apparently it appears to be a pinnately compound leaf.

Flowers: The internodes are much shorter in the determinate shoots. These nodes are barren or floriferous with imbricate leaves. First few proximal nodes on the determinate shoots are barren (without leaves), which are reduced to dark brown scarious cataphylls. Succeeding nodes are with green but reduced leaves. Subtending cymules of male flowers are followed by nodes each with a cymule of one central female flower (rarely two) and several lateral males distal half floriferous, determinate, shoots are normally sterile with typical leaves.

Inflorescence: Inflorescence is racemose type, flowers minute, unisexual, with short pedicel. Male flowers appear first in clusters; perianth 6, yellowish green or deep pink in colour with valvate aestivation. Androecium consists of 3 stamens, each profusely branched, and filament attachment is basi-fixed or innate type, short, and cohesion of anther is syngenesious. Female flowers have tiny green perianth and number of segments varies from 5 to 7 but commonly six. Ovary hypogynous, carpels 3-4, three chambered placentation axile, two ovules per locule, margin straight to crescent shaped and ovarian chamber shallow to deep.

Fruit: Nearly pedicel less, fruits depressed, round globose or oblate, indented at the base A capsular (drupaceous) berry with fleshy exocarp, smooth to obscurely 6 lobed, initially determinate shoot of aonla showing male and female flowers; (b) female flower; (c) fruit let; (d) mature fruit; (e) transaction of ovary

1. Pratapgarh has recognized the biggest aonla cluster in the country for production of aonla and making many types of product through the aonla for many purposes and for many countries according to their need and demand.
2. Pratapgarh, Rai Bareilly, Jaunpur, Sultanpur, Varanasi are the prominent areas of production of Pratapgarh Aonla.
3. The prominent villages and geographical area is Pratapgarh Sadar, Lalganj, Biharganj, Raniganj, Sandava, Chandika are much popular for Pratapgarh Aonla cultivation.
4. Mainly the farming related community is involved in the practice of production without any discrimination of caste, creed and religion.

G) Geographical area of Production and Map as shown in page no:

The Pratapgarh Aonla is cultivated mainly in Pratapgarh district and its adjoining district namely Rai Bareilly, Jaunpur, Sultanpur and Varanasi districts of Uttar Pradesh.

1. **Pratapgarh** District is situated 25.89^{o} N longitudes and 81.94^{o} E latitude.
2. **Rai Bareilly** District is situated 26.21^{o} N longitudes and 81.25^{o} E latitude.
3. **Sultanpur** District is situated 26.25^{o} N longitudes and 82.06^{o} E latitude.
4. **Jaunpur** District is situated 25.75^{o} N longitudes and 82.69^{o} E latitude.
5. **Varanasi** District is situated 25°.20’ N latitude&83°.00’ E longitudes.

H) Proof of Origin (Historical records):

Pratapgarh Aonla has a very good reputation, uniqueness, historical origin and geographical existence in the concerned districts and recognized from British period and mentioned in the 1881- 82, in the relevant document which has been mentioned in many books and research documents of reputed institutions.

Partabgarh, or Pratapgarh, a district of British India in the Fyzabad division of the United Provinces. (**Reference:** Partabgarh (state) 1911 Encyclopædia Britannica, Volume 20 Partabgarh (United Provinces) Partabgarh District Gazetteers-1904

Pratapgarh is a world famous place for Aonla production. Authentic information regarding its cultivation 1881-82 in Pratapgarh district of Uttar Pradesh. The Aonla domestication was first started in Varanasi with the initiative of Maharaja Varanasi. The Aonla plant brought from Varanasi was named as Banarasi. A seedling of Banarasi with prolific bearing and flat fruits was named as Chakla, and now it is known as Chakaiya. Many books and research papers have referred to the Pratapgarh Aonla and hundreds of scientists and academic institutions have completed their study and research about the Pratapgarh Aonla and published their research papers. The Govt. of Uttar Pradesh has also taken Pratapgarh Aonla and its promotion in their flagship programs. Highest number of Aonla growers are existing in Pratapgarh and surrounding villages.

I) Method of Production:

Pratapgarh aonla is one of the most important agricultural products which has utilized in many ways including medicinal value, Ayurvedic importance as well as processed food in sweet and sour and much beneficial for baby to oldest age person. This tree and fruit has also religious importance in the Hindu religion especially at the time of Akshay Navami tithi of Kartik month. It is regarded as the fruit loved by the God Vishnu when the people cooked food under the tree of aonla. It has been mentioned in the various oldest books and still it is in practice since generations.

The major hindrance in the establishment of aonla orchards had been non-availability of genuine and good quality planting material, poor establishment and prolonged juvenility. In recent years, most of these constraints have been resolved. Aonla has long been raised by seed, Seed- propagation, though easy and cheap, does not ensure true-to-type plant owing to cross-pollination. Since aonla tree has an upright growth habit, availability of scion shoot has been the main limiting factor for inarching.

Skilled human resources of aonla cultivation in Pratapgarh plays an important role from budding, grafting of plants to the preparation, plantation, manuring, irrigation, mulching, plant caring and harvest as well as post-harvest management and packaging.

Rootstock: Aonla is commercially propagated by inarching/budding/ grafting on seedling rootstock. Long-term efforts are required for identification of ideal rootstock. Invariably seeds are obtained from local aonla (seedling trees) and are used for rootstock.

Seed extraction: Fruits are collected from local seedling (desi) aonla trees and used for rootstock raising. Mature fruits should be collected during January/February. Fruits are dried in the open and seeds are extracted by applying light pressure. On an average, there are six seeds per fruit. One kg seed can be obtained from one quintal of desi

aonla fruits. Average test weight of aonla seed varies from 30,000-50,000 per kg or 300-500 per 10 g of fresh seed weight.

Seed longevity: Seeds of seedling aonla are used for rootstock purpose. Aonla seeds stored in polythene bags maintained higher seed viability and better germination percentage. The loss in germination was more pronounced in seeds stored in non-airtight containers.

Seed germination: Raising of seedling is essential for rootstock. The timing for sowing of seed has been **standardized**. Sowing of seed on raised bed (after soaking in water for 12 hours) during March/April facilitates quick germination. Germination of seeds of aonla is better during March-April and July-September. Seedling raised in March-April can easily be used for budding in July/September. However, the maximum germination (77.8%) was obtained in seeds sown around mid-July. With a polyhouse facility, seed sowing can be adjusted as per requirements. Soaking of dry seeds in 500 ppm GA for 24 hours improves germination. Raising of rootstock in the seedbed is not conducive in the arid and semi-arid regions because earth ball formation is difficult in sandy soils.

Hardening: The seedlings (about 10 cm in height) transplanted after holding it 3 days under shade gave better establishment as compared to direct transplanting after removal from the nursery bed. Delay in transplanting from nursery results in heavy mortality during transplanting in the field or nurseries.

Methods of propagation: Inarching or approach grafting was the main vegetative propagation technique. Recently, other efficient and cheaper techniques have been standardized and are now successfully used. These are cleft grafting, patch, modified ring budding. Use of poly and net house, containers and rooting media has revolutionized aonla multiplication in Pratapgarh.

Grafting: This consists of sowing of aonla seed in polybags during February-March. After July, these seedlings attain a diameter around 0.6 cm at the collar region. These are headed back 3-4 cm above the collar and scions of aonla cultivars are cleft grafted on the headed back stock. Immediately after grafting, the grafts are covered with colourless polycaps about 20 cm long and
2.5 cm wide. The grafts are regularly irrigated. Within 12-15 days of grafting, scion shoots sprout, which is visible from outside. The polycaps are carefully removed after 21 days and these are kept for hardening. Early removal of poly caps results in high mortality. August is suitable for removal of cap with approximately cent per cent success. Field transferable grafts become ready within 6-8 months of seed sowing. This method ensures 100 per cent establishment and survival of transplants in the field on account of undisturbed root system. This method also ensures the authenticity of the planting material which has been grafted. These grafts are covered with polycaps to raise the humidity and temperature and provide congenial microclimate. Sprouting occurs within 21 days and growth picks up. Cap needs to be carefully removed. These are transferred to shade net for 4-6 weeks and then to open bed. These are ready for field transplanting within 15-20 weeks. Out of a number of rooting media tried, composted coir pith, cattle manure and soil was found to be well suited. Incorporation of Azospirillum, phosphorus- solubilizing mycorrhiza (VAM) and neem cake in the rooting media has been found to boost the growth.

Budding: A number of budding techniques as such forkert, patch, modified ring and shield have been attempted. The forkert and patch techniques have given 85 to 100 per cent success. Chip budding using seedlings of 1.5 years old as rootstocks is easier and 60 to 80 per cent success is obtained if done in September and October and in February-March. Uniform growing, vigorous seedlings of pencil thickness (6-9

months old) are used for budding.

Standardization of time and technique of budding: In the month of July, proved to be the best time for both patch and modified ring budding followed by June for patch and August for modified ring budding. Aonla can be propagated commercially by patch or modified ring budding from June

to August with 80-100 per cent success. The number of female flowers per determinate shoot is a cultivar characteristic and hence due care should be taken, while collecting the scion shoot.

Aonla tree, which has fruited well over 4-5 years, should be utilized as a source of mother plant. This practice shall ensure sufficient number of female flowers on the tree and also indirectly be helpful in shortening the juvenile period of grafted/budded plants after transplanting in the field.

Planting: Fruit plants are normally planted in a square system where plant-to-plant and row-to-row distances are kept the same. Aonla is planted at a spacing of 5-9 m .Self-incompatibility has been observed in aonla cultivars. Therefore, two cultivars must be planted either in alternate rows or a dwarf cultivar, for example NA-7, may be planted as filler in the centre of each square, to serve as pollinizer. Aonla planting in Pratapgarh at a distance of 8 x 4 m and triangular planting system is also becoming common practice for better space and solar radiation and described utilization.

Pit preparation: The major point in plantation technique is the pit preparation. The size of the pit depends upon the type of the land. Land having problems of sodicity/ salinity, which is characterized by the presence of hard kankar (small stones), pan, pit size of 1 x 1 x 1 m and breaking or removal of kankar (small stones), pan is essential. In saline/sodic lands, pits should be dug in the month of December-January and the rainwater should be allowed to collect in the pits.

Filling of pits: The pits should be filled up with the mixture of good soil, manure and BHC/ neem cake upto the height of 15-20 cm above the ground for better establishment of plantation.

Season of planting: Aonla plants can be planted twice in a year i.e. July to September in the rainy season and middle of January to February/March in spring. Maximum success can be obtained with January planting (when plants are in dormant condition) with assured irrigation facilities. Successful attempts have also been made to transplant bare-rooted plants during January in Pratapgarh.

Method of planting: The plant with its earth ball should be taken out and should be placed in the centre of a pit by excavating soil to accommodate the root ball. The moist soil of the pits is then pressed around the root ball. It is to adjust it, at the same depth at which it was in the nursery bed. The ideal time for planting is in the afternoon. In case plants have been propagated in polybags/root trainers, these should be taken out carefully and then transplanted in the centre of the pit prepared for the purpose.

Manure application: Organic mannuring is practiced by aonla cultivators in Pratapgarh. The cultivators apply Azospirillum, phosphorus-solubilizing mycorrhiza (VAM) and neem cake in the rooting media has been found to boost the growth.

Mulching: Mulching refers to covering the surface area or tree basin with organic (straw, hay, paddy straw, husk, sugarcane trash, banana leaves, coconut coir or waste, peanut hulls, wood shavings, saw dust, various kind of litters and composts, etc.). The most useful type of mulch is that which absorbs little moisture, does not pack or form water shedding type surface and allows the rainfall to move downwards rapidly in the soil.

J) Uniqueness:

Patapgarh Aonla is a famous horticulture product of Uttar Pradesh. Several research papers, research articles, Scientists, Scholars, Media publications, Historians, Government documents have mentioned the quality, traditional practices, nutritional as well as medicinal properties. Pratapgarh Aonla fulfils the huge requirement of Ayurveda medicine production and preparation because Aonla was believed that amrit/ambrosia packed with all rasas thereby, becomes an

unavoidable part. In that sense, amalaki and hareetaki stand next to amrit since they exhibit five rasas. The fruit amla is deliberated as a rasayana for pitta. Charaka samhita mentioned amalaki is viewed as one of the most potent and nutritious and also it says “Amalaki is the best rejuvenative herb, and specifically observed that amla is a great rasayana that helps to protect from disease and reduce the possibilities of premature ageing.

- Pratapgarh is the highest aonla producing district in the world with 13000 hectare aonla cultivated area.
- More than 50 types of products have developed from Pratapgarh Aonla in the district Pratapgarh.
- Pratapgarh Aonla is also an export oriented product. Hugue number of human skills are directly involved in the cultivation and production process in the geographical area of this product.
- Pratapgarh Aonla variety named Banarasi, a superior variety was selected from the wild aonla trees available in large numbers in the nearby Vindhya hills. Authentic information regarding its cultivation dates back to 1881-82 in the Pratapgarh district of Uttar Pradesh.
- Pratapgarh Aonla has low molecular weight hydrolysable tannins (Emblicanin A and Emblicanin B, punigluconin) thereby it is considered as one of the stronger antioxidant herbs in Ayurveda.
- Pratapgarh Aonla: An exclusive natural refresher with richest vitamin C present in aonla is one of the main factors that can help to retrieve or refill the energy lost by the body. So, the replenishment of new energy caused by aonla is considered as a natural refresher.
- Pratapgarh Aonla As an energy refiller One teaspoon of aonla powder over with honey after taking milk in the morning helps to improve freshness and strength to the body.
- Pratapgarh Aonla fights with acidity The irregular food habits and abnormal intake of sweet, sour, spicy and oily food may cause acidity, and also tea, coffee and smoking are causing that trouble. The physiological factors are anger, grief and depression. This problem is overcome by taking one gram of aonla powder and a small amount of sugar mixed with milk or water twice a day.
- Action on toxins Some of the toxins may be stored in the liver by regular uptake of painkillers, antibiotics, medication and alcohol consumption. Aonla prevents the body from these toxins by strengthening the liver thereby aonla acts as a good detoxifier and helps to purify the blood.
- Urinary trouble frustration agent The fresh juice of aonla acts as a diuretic which normalizes acidic urine. It is helpful in burning urinary infection.
- Relieves leucorrhea: The major problem of females is the discharge of white mucous material, often an indication of infection. This problem is overcome by taking 3 gms of powdered aonla with 6 gms of honey everyday for one month can cure this problem.
- Effects on urinary stone: Having aonla powder with radish can break the stones present in the urinary bladder and wash it out through urine. The best time to have them is morning or evening.
- Pratapgarh Aonla therapy for diarrhea Paste of aonla leaves mixed with honey is an effective cure for diarrhea.
- Pratapgarh Aonla as a febrifuge The leaves and seeds of the fruit can make it get well back from fever. The leaf extracts are widely used for the treatment of fever in Malays homeo medicines. Emblic seeds are boiled with chitrak root and chebulic myrobalan and the boiled contents are good for curing fever.
- Relieves headache Applying mixtures of aonla with buttermilk make temperature reduction and give chillness to the head and its paste reduces

headache.

- Well digestive agent Fresh green leaves of aonla are crushed and mixed with curd taken before food can improve good digestion.
- The Natural Refresher Vitamin C present in aonla is one of the main factors that can help to retrieve or refill the energy lost by the body. So, the replenishment of new energy caused by aonla is considered as a natural refresher.

- One teaspoon of Pratapgarh Aonla powder over with honey after taking milk in the morning helps to improve freshness and strength to the body. In anaemia therapy aonla is a good absorption agent of iron. Ascorbic acid is highly present in amla, which helps to reduce iron deficiency.
- Pratapgarh Aonla fights with acidity, this problem is overcome by taking one gram of aonla powder and small amount of sugar mixed with milk or water twice a day.

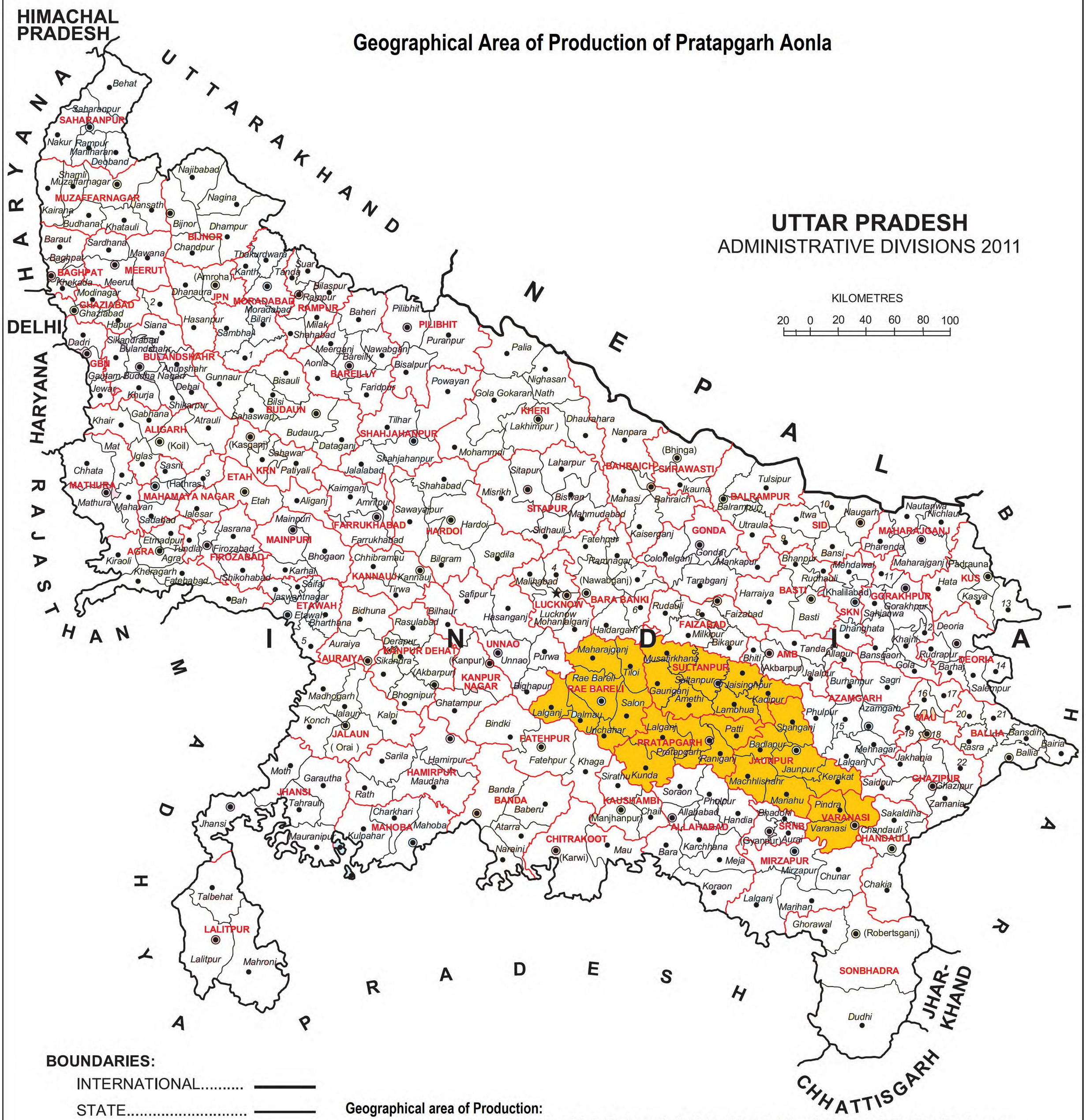
K) Inspection Body:

1. One Representative from the concerned District Administration.
2. Representative from the Department of Agriculture and Farmers Welfare, Government of Uttar Pradesh.
3. One Representative from NABARD, Uttar Pradesh
4. One Representative from APEDA.
5. One Representative from Traders and Exporters Association of GI Product.
6. Two representatives from GI Applicant organisation.
7. One Farmer representative from each district of Pratapgarh, Rai Bareilly, Jaunpur, Sultanpur and Varanasi

L) Others:

One of the most important agricultural products which has been utilized in many ways including medicinal value, Ayurvedic importance as well as processed food in sweet and sour and much beneficial for Baby to oldest age person. This tree and fruit has also very much religious importance in the Hindu religion especially at the time of Kartik month and very much important on the Akshaya Navami tithi when the people cooked food under the tree of aonla. It has been mentioned in the various oldest books and still in practice since generation.

Geographical Area of Production of Pratapgarh Aonla



BOUNDARIES:

INTERNATIONAL..... ——

STATE..... ——

DISTRICT..... ——

TAHSIL..... ——

HEADQUARTERS:

STATE.....★

DISTRICT.....◉

TAHSIL..... •

JPN - JYOTIBA PHULE NAGAR
GBN - GAUTAM BUDDHA NAGAR
KRN - KANSHIRAM NAGAR
AMB - AMBEDKAR NAGAR
SID - SIDDHARTHNAGAR
SKN - SANT KABIR NAGAR
KUS - KUSHINAGAR
SRNB - SANT RAVIDAS NAGAR (BHADOHI)

Geographical area of Production:

The Pratapgarh Aonla is cultivated mainly in Pratapgarh district and its adjoining district namely Rai Bareilly, Jaunpur, Sultanpur and Varanasi districts of Uttar Pradesh.

1. **Pratapgarh** District is situated 25.89° N longitudes and 81.94° E latitude.
2. **Rai Bareilly** District is situated 26.21° N longitudes and 81.25° E latitude.
3. **Sultanpur** District is situated 26.25° N longitudes and 82.06° E latitude.
4. **Jaunpur** District is situated 25.75° N longitudes and 82.69° E latitude.
5. **Varanasi** District is situated 25°.20' N latitude&83°.00' E longitudes.

1 - *Chandausi*
2 - *Garhmukteshwar*
3 - *Sikandra Rao*
4 - *Bakshi Ka Talab*
5 - *Chakarnagar*
6 - *Ramsanehighat*
7 - *Sirauli Gauspur*
8 - *Sohawal*
9 - *Domariyaganj*
10 - *Shohratgarh*
11 - *Campierganj*
12 - *Chauri Chaura*
13 - *Tamkuhi Raj*
14 - *Bhatpar Rani*
15 - *Nizamabad*
16 - *Ghosi*
17 - *Madhuban*
18 - *(Maunath Bhanjan)*
19 - *Muhammadabad Gohna*
20 - *Belthara Road*
21 - *Sikanderpur*
22 - *Mohammadabad*

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