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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 80 of the Geographical Indications Journal dated 02nd February, 2016 / Magha 13th, Saka 1937 has been made available to the public from 02nd February, 2016.
## NEW G.I APPLICATION DETAILS

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<th>Class</th>
<th>Goods</th>
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<td>21</td>
<td>Handicraft</td>
</tr>
<tr>
<td>541</td>
<td>Kathputlis of Rajasthan (Logo)</td>
<td>28</td>
<td>Handicraft</td>
</tr>
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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.

Registrar of Geographical Indications
Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 80 dated 02\textsuperscript{nd} February, 2016

G.I. APPLICATION NUMBER – 471
Application Date: 26-03-2014

Application is made by Waigaon Halad Utpadak Sangh, Taluka: Samudrapur, District: Wardha, Maharashtra, India for Registration in Part A of the Register of WAIGAON TURMERIC under Application No: 471 in respect of Turmeric 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.

A) Name of the Applicant : Waigaon Halad Utpadak Sangh

B) Address : Waigaon Halad Utpadak Sangh, Taluka: Samudrapur, District: Wardha, Maharashtra, India

C) Types of Goods : Class 30 – Turmeric

D) Specification:

Botanical name of Turmeric is Curcuma longa,

- Waigaon Turmeric has distinct dark yellow color because of high Curcumin content which is more than 6%
- It has unique taste, enrich in oil content and pleasant aroma.
- It has special medicinal value.
- Little quantity of Waigaon Turmeric is sufficient to increase the color of food.
- Cultivation is in an Organic manner

E) Name of the Geographical Indication:

WAIGAON TURMERIC

F) Description of the Goods:

- Waigaon Turmeric is a traditional crop in Samudrapur tehsil of Wardha district.
- Use of this turmeric for wound healing, curing cough, cold and in many other diseases is traditionally known in this area.
- This is a unique variety which matures in short period and grown under rain fed condition.
- Approximately 80% of the farmers from Waigaon village cultivate turmeric since generations.
- Color of Waigaon turmeric is dark mustard yellow as compared to other turmeric varieties.
• Texture of this turmeric powder is very soft.
• Aroma of this turmeric is very pungent, still attractive.
• Whole dry turmeric finger sets are very thick and solid (fleshy).

G) Geographical area of Production and Map as shown in page no: 13

Area under Cultivation:
The cultivation of Waigaon Turmeric is highest in Waigaon village of Samudrapur Tehsil of Wardha District. This variety is also cultivated in Muradpur, Pawangaon, Mangrul, and Dongargaon villages of Samudrapur tehsil. Approximately 80% farmers cultivate Waigaon Turmeric in Waigaon Village. Due to large production of unique turmeric in Waigaon village, it is named as a “Haladya Waigaon” (Halad is Marathi name of Turmeric) thus indicating Waigaon is exclusive turmeric growing village. In Samudrapur Taluka around 400 farmers cultivate Waigaon Turmeric.

H) Proof of Origin (Historical records):
Waigaon Turmeric has a long history since the Mughal Province. Waigaon variety of turmeric is cultivated in Samudrapur tehsil more prominently in Waigaon village. In one of the government records of Wardha district, it has been mentioned that ‘Waigaon Turmeric cultivation’ was allotted to ‘Mali’ Community in that period.

Farmers from Waigaon have mentioned that Waigaon variety is traditional variety and cultivated in this area since generations and the same is continue.

The production of Waigaon Turmeric in Waigaon village is significantly high, due to which the village is known as ‘Haladya Waigaon’ (Halad is Marathi name of Turmeric).

I) Method of Production:
Turmeric farming is completely organic. In the overall cultivation period and processing of turmeric no chemicals and pesticides are used. ATMA has taken initiative for organic farming Certification for Waigaon Turmeric. The certification process is in progress.

Total cultivation and processing period of turmeric is near about 8 months. Cultivation of turmeric starts after ‘Akshaytrutiya’ festival. If irrigation facilities are available the planting of rhizomes is possible at the time of ‘Akshaytrutiya’. However, most of the farmers do planting during monsoon to take advantage of the rainfall.

Seed material:
Whole or split mother rhizomes are used for planting. Farmers generally select well developed, healthy and disease free rhizomes from previous production. After harvest of the crop the mother sets are cleaned and stored in a cool place.

Water Management:
‘Wardha’ river flows near Waigaon. Canals are used for water supply in this turmeric belt. The yield of turmeric mainly depends upon rainfall from June to September. In the month of October and November plants can be irrigated by river water or by canal water with sprinkling irrigation if post monsoon rains are not received.
Cultivation Method:
1. Take small pits in the bed in rows with a spacing of approximately 1 to 1.5 feet
2. Plant mother rhizomes flat with buds facing upwards and cover with soil or dry powdered cattle manure. This process of planting serves the purpose of aeration. The sprouting of the plant starts in monsoon with green yellow leaves. Irrigation is required in case of less rainfall.
3. Apply cattle manure or compost as basal dose at the time of land preparation or by spreading over the beds after planting.
4. Harvest the turmeric rhizomes after 6 months, when leaves became dry and dropped down. After harvesting finger sets from mother rhizomes are separated. Rhizomes having bud are kept for further cultivation and stored in a cool dry place under shade and used for planting in the next season. The separated fingers are then dried in the sunlight by spreading them as a thin layer in farm. Turmeric powder is made from these dried finger sets. The turmeric powder and mother rhizomes are sold in the market.

Method of preparation of Turmeric Powder:
• Drying: After harvesting, separated fingers from mother rhizomes are dried in the sunlight by spreading them as a thin layer in farm. To avoid direct sunlight, tree leaves are spread over them.
• Boiling: Dried fingers and mother rhizomes are boiled in copper vessels of suitable size.
• Polishing: In order to smooth the rough and hard outer surface of the boiled dried turmeric and also to improve its color, it is subjected to polishing. After boiling these fingers and mother rhizomes are rubbed for gaining luster and again kept for drying for approximately 15 days.
• Grinding: Manually or with the help of machine (grinder) the turmeric powder is made from these dried finger sets.

J) Uniqueness

I. Geographical Significance:

Soil:
The black soil of Waigaon is suitable for turmeric cultivation. Additionally 10 feet deep black soil available layer helps in water retention in soil. Black soil from Waigaon is alkaline in nature having pH more than 8 and it contains high organic carbon.
The soils are well drained. In some area soils are alkaline in reaction. But due to heavy rains, the excessive salts are washed away and soil becomes neutral in reaction thus it become productive.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Characteristics</th>
<th>Observations</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>pH</td>
<td>8.24</td>
<td>Medium alkali</td>
</tr>
<tr>
<td>2</td>
<td>Organic Carbon (%)</td>
<td>0.425</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>Available Nitrogen (Kg/Ha)</td>
<td>294</td>
<td>Medium</td>
</tr>
<tr>
<td>4</td>
<td>Available Phosphorus(Kg/Ha)</td>
<td>22.590</td>
<td>Less</td>
</tr>
<tr>
<td>5</td>
<td>Available Potassium(Kg/Ha)</td>
<td>295.68</td>
<td>High</td>
</tr>
</tbody>
</table>
Rainfall:
The climate of the district is characterized by dry hot summer and humid in nature during the south-west monsoon season i.e. June to September. The normal annual rainfall varies from 985 mm to 1100 mm and the rainfall progressively increases from western to eastern part of Vidarbha. The water requirement of most of crops is fulfilled through rainwater being assured rainfall area of the state. Even during the scarcity year, the rainfall in some part of Vidarbha region is assured. This is some kind of natural gift to Vidarbha region.

Comparison Chart of Turmeric varieties – Waigaon and Krishna

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Specifications</th>
<th>Gawran / Waigaon</th>
<th>Krishna</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Production per Acre</td>
<td>8 - 9 quintal</td>
<td>10-12quintal</td>
</tr>
<tr>
<td>2</td>
<td>Aroma</td>
<td>Very Good</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>Color</td>
<td>Not fade</td>
<td>Fade</td>
</tr>
<tr>
<td>4</td>
<td>Stickiness</td>
<td>Good</td>
<td>Less</td>
</tr>
<tr>
<td>5</td>
<td>Yield per crop</td>
<td>500gm</td>
<td>600 to 700 gm</td>
</tr>
<tr>
<td>6</td>
<td>Price</td>
<td>200 to 250 Rs</td>
<td>80 to 100 Rs</td>
</tr>
</tbody>
</table>

II. Uniqueness:

A recent study by the Vidarbha Economic Development (VED) conducted by Indian Society of Agricultural Marketing (ISAM) concluded that

“Waigaon turmeric is specific and unique in many forms. It has tremendous opportunities for agro-processing. Turmeric extract has a big potential in pharmaceutical, dairy, confectionary, dairy and many food processing industries. Being grown organically, Waigaon turmeric could attract large export market in the pharmaceutical and food processing industry”

The unique features of Waigaon turmeric are summarized below:

- The Waigaon variety matures in just 180 days, earlier than other varieties.
- The high Curcumine content is the key ingredient that lends Waigaon Turmeric its distinctive yellowness. The higher its percentage, the deeper is the yellow color. Waigaon Turmeric has 6.12% curcumine content. Waigaon Turmeric had a special standing for its aroma and curcumine content.
- It is completely organic farming. (Organic Farming certification is in process). Quality of Waigaon Turmeric and its medicinal value is maintained due to organic farming since no chemicals and pesticides are used.
- Very less quantity of powder is sufficient for increasing the color of food items.
- Durability of turmeric powder is more.

The ISI standard fixed for curcumine content for turmeric is not less than 2.0%, the Indian organic turmeric of Waigaon variety shows 6.12% curcumine, which is considered as the active ingredient in turmeric for medicinal purposes. If turmeric crop is grown under the organic farming systems and then processed as per mentioned in Ayurveda, its curative power is enhanced at least 3 times the normal crop.
K) Inspection Body

Waigaon Halad Utpadak Sangh has constituted an Inspection structure to oversee the standards and quality assurance system for inspection of every step of production of Waigaon Turmeric and statutory compliances thereof.

This Inspection Body consists of President / Vice-President / Secretary / Treasurer of the Applicant Organization, Farmer Members, GI Experts, and Agriculture Experts.

The quality of Waigaon Turmeric will be monitored by an Internal Watchdog Mechanism in order to maintain the original physical and chemical characteristics as per GI registration.

The system of internal watchdog mechanism will consist of following committee members:

i. Representative of Producer group of Waigaon Turmeric
ii. Three (3) Producers from the area
iii. GI Experts

This committee will also help to regulate the use of Geographical Indications for the welfare of local producers’ community. The committee will frame the terms and conditions to use brand name of Waigaon Turmeric by any of the marketing agency. The logo of Waigaon Turmeric GI will be used to create brand image.

L) Others

Uses:

Whole turmeric crop is useful in various manners.

- Turmeric powder and even fingers are used in marriage ceremony, religious ceremony. Turmeric tuber is used in ‘Kankan bandhana’ ceremony of Marathi or kokani wedding.
- People of ancient India believed that turmeric gives the energy of the Divine Mother and helps to grant prosperity. It is effective for cleansing the chakras (energy centers in the body) purifying the channels of the subtle body. Turmeric has traditional importance. Its paste is applied to forehead (third eye chakra) during puja (devotional ceremony) and wedding.
- Turmeric powder is used as an essential spice in food preparation as an ingredient. It is used in curries and other food to improve storage conditions, palatability and preservation. It helps in enriching food colour.
- Turmeric powder prepared from dry turmeric old mother sets are used in preparing “Kumkum” which is non allergic. It is also used in ‘Ashtgandh’.
- Dying cloths- Traditionally, turmeric is also used to dye the marriage cloths. It was believed that any clothing dyed with turmeric was protection from fever. New clothes would sometimes be stained with a paste of turmeric, lime and water. And
- Turmeric crop nourishes soil. It also acts as disinfectant for soil. Turmeric essential oil mixed with citronella, tulsi and vanillin works as a powerful insect repellent, and is a natural alternative to D.E.E.T. the most common chemical insect repellent commercially available.
- Turmeric colour extract can be used as organic food colour.
• Turmeric fingers are used to prepare pickles. Pickle made from Waigaon Turmeric is very tasty and nutritious too.

**Medicinal Uses of Waigaon Turmeric:**

1. Cancer treatment: Curcumine content is high in Waigaon Turmeric. Turmeric extracts and Curcumine have been found to be cancer preventing compounds in different tumor models, as well as in limited human studies. Curcumine Capsule is used as dietary supplement in treatment of cancer and other diseases.

2. HIV treatment: Turmeric was also studied as a potential antiviral agent against Human Immunodeficiency Virus (HIV). The infection with HIV is characterized by a complex command system which results in virus activation or inactivation. The essential structural part of that command system in HIV is called Long Terminal Repeat (LTR). Drugs that interfere with LTR may be of potential therapeutic value in delaying active HIV infection and progression of AIDS. Curcumine has been found to effectively inhibit activation of the LTR and to decrease HIV replication. 
   Antioxidant properties of Waigaon Turmeric could delay the progression of HIV. In fact, clinical studies show that taking nutritional supplements that boost the immune system in HIV-infected patients helps slow the virus down. In the recent studies at the Jawaharlal Nehru Centre for Advanced Scientific Research in Bangalore, scientists fed curcumine to HIV-infected cells in the laboratory, the virus stopped replicating. Curcumine could be used to help formulate a combination of drugs to treat HIV infection. Curcumine stops an enzyme called p300 from performing its normal role of controlling the activity of human genes. Because HIV integrates itself into human genetic material, when p300 stops working, the virus can no longer multiply.

3. Treatment in Neurological diseases - Turmeric is also helpful in treating and preventing neurological diseases like Alzheimer. Curcumine inhibits the accumulation of destructive beta amyloids in the brains of Alzheimer's patients. Curcumine is more effective in inhibiting formation of the protein fragments than many other drugs being tested to treat Alzheimer's. The prevalence of the disease among older adults in India is 4.4 times less than in the U.S., suggesting that many Indians might be benefiting from having turmeric as a dietary staple.

4. Use to cure Arthritis. Turmeric is used in traditional medicine to treat arthritis.

5. Turmeric powder is used to cure cough and cold.

6. Skin diseases: It purifies and nourishes the blood and skin so that the glow of health is not attenuated by blemishes and impurities but rather amplified through clarity. Generally Turmeric is used as Ubtan (paste) with chick-pea flour, sesame or almond oil, a little fresh cream and honey to clear the patches on skin and increase the natural glow. Turmeric is bitter and anti inflammatory, it is used for skin diseases, especially wet eczema.

7. Healing wounds: Turmeric essential oil works as an external antibiotic to prevent infections in wounds. A nice formula for wound healing is a mixture of olive oil, beeswax tea tree oil, aloe, turmeric, arnica, slippery elm, red clover thyme oil and vitamin E.
Application is made by Akhil Maharashtra Anjir Utpadak Sanshodhan Sangh, 50 A, Hadapasar Industrial Estate, Hadapasar, Pune - 411013, Maharashtra, India for Registration in Part A of the Register of PURANDAR FIG under Application No: 500 in respect of Fig 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 : Akhil Maharashtra Anjir Utpadak Sanshodhan Sangh

B) Address : Akhil Maharashtra Anjir Utpadak Sanshodhan Sangh, 50 A, Hadapasar Industrial Estate, Hadapasar, Pune - 411013, Maharashtra, India

C) Types of Goods : Class 31 – Fig

D) Specification:

More than two centuries, Purandar Figs from Pune district have created its identity in market.

- The distinct Bell-shaped Purandar Fig with attractive violet color differentiates itself from other varieties.
- The Purandar Fig has excellent sweet taste which remains on the tongue for more periods. The low Acidity (0.20 – 0.22) and high Total Soluble Sugar content (15-180Brix) gives sweeter taste to Purandar Fig. Also in Purandar taluka, water is irrigated from well. Such sweet and salt free well irrigated water gives sweet taste to Purandar Fig.
- Purandar Fig is the high yielding variety having good keeping quality. It has 60 – 70 Kg yield per tree while number of fruits are approximately 1150 - 1200.
- The size of Purandar Fig is bigger than other varieties of Fig.
- The Purandar Fig fruit has more than 80% pulp (Avg. 89.56%) or edible part. The Pulp colour of Purandar fig is pinkish red and is highly nutritious. The higher weight of the Purandar Fig indicates in higher pulp content. This high quality and quantity pulp is useful for fruit processing.
- Purandar Fig is the best suited variety for both seasons like Khatta Bahar and Meetha Bahar
- Purandar Fig does not split at maturity
- The high Potassium and calcium content of red and black Purandar Soil is apparently responsible for the attractive violet color and size of Purandar Fig.
- The agro climatic factors like Arid or semi-arid environment, high summer temperature, plenty of sunshine and moderate water in the Purandar taluka is highly suitable for higher production of Purandar Fig.
E) Name of the Geographical Indication:

**PURANDAR FIG**

F) Description of the Goods:

Special characteristics of Purandar Figs are as follows:

- **Shape:** Bell-shaped or pear shape
- **Size:** Large to medium
- **Colour:** Light purple color / violet
- **Pulp:** Pinkish Strawberry like pulp.
- **Pulp Content:** 80%
- **Taste:** Sweet, delicious and nutritious (rich in calorie, protein, calcium and iron.)
- **Flavour:** Resin like flavour
- **The Fig Fruits are consumed fresh as well as in the dried form**
- **Nutritive index of Fig:** 11 against 9 for apple and 6 for raisin
- **Skin type:** Slender
- **Plant height:** 3-4m
- **Plant growth habit:** Spreading
- **Foliage:** Green
- **Trunk girth:** 50-60cm
- **Plant spread (E W):** 4-5m and Plant spread (N S): 4-5m
- **Fruit length:** 4-5cm
- **Fruit breadth:** 3-4cm
- **Fruit Weight:** 60-70 gms
- **Number of fruits:** 1150-1200
- **Yield per tree (Kg):** 60-70Kg
- **TSS:** 15-180 Brix
- **Acidity:** 0.20 – 0.22%

Morphological characteristics of Fig:

Bark: The bark is a smooth and silvery gray.
Leaves: Fig leaves are bright green, single, alternate and large (to 1 ft. length). They are more or less deeply lobed with 1 - 5 sinuses, rough hairy on the upper Surface and soft hairy on the underside.
Flowers: The tiny flowers of the fig are out of sight, clustered inside the green "fruits", technically a synconium. Pollinating insects gain access to the flowers through an opening at the apex of the synconium.
Fruits: The matured "fruit" has a tough peel (pure green, green suffused with brown, brown or purple), often cracking upon ripeness, and exposing the pulp beneath. The interior is a white inner rind containing a seed mass bound with jelly-like flesh.
Seeds: Seeds may be large, medium, small or minute and range in number from 30 to 1,600 per fruit. The edible seeds are numerous and generally hollow, unless pollinated. Pollinated seeds provide the characteristic nutty taste of dried figs.

G) Geographical area of Production and Map as shown in page no: 24

Pune District lies between 170-54’ and 190-24’ North latitude and 730-19’ and 750-19’ East longitude. Pune District is bound by the Ahmadnagar district on the North-East, Solapur district on the South-East, Satara district on the South, Raigad district on the West and Thane district on the North-West.

Purandar taluka is a taluka in Bhor subdivision of Pune district. It lies between 180-17’-20’ North latitude and 730-58’-29’ East Longitude. Purandar Taluka is surrounded on the north by Haveli, and Daund Talukas on the East, on the South by Satara District and on the West by Bhor Taluka. There are 2 towns viz. Saswad, Jejuri and 101 villages in Purandar Taluka.

Geographical Area of production:

Maharashtra has the highest area 2242 hectares (77.34%) in India under fig plantation. Pune District is the leading region in Maharashtra regarding fig plantation. When we talk about fig, the areas such as Purandar, Saswad and Khedshivapur in Pune district come up on the forefront. The fig is cultivated in fifty villages of Purandar Taluka in Pune district. Walhe, Rajewadi, Sonori, Pimple, Guroli, Dive, Waghapur, Sakurdi, BhivariSaswad, and Somardi villages are main fig producing villages from Purandar taluka. Fig is cultivated in Daund, Baramati and Junnar Talukas also.

In 2004-05 the total area under Fig plantation was 466.41 hectares in Pune District. Purandar taluka (45.92%) was on the top. Fig production in different Talukas in Pune District is given in below Table.

Taluka wise area under Fig Plantation in Pune in 2004-05:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Taluka</th>
<th>Fig Plantation Total Area (in Hectares)</th>
<th>Fig Plantation comparative ratio with total plantation area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purandar</td>
<td>214.17</td>
<td>0.26</td>
</tr>
<tr>
<td>2</td>
<td>Bhor</td>
<td>90.00</td>
<td>0.27</td>
</tr>
<tr>
<td>3</td>
<td>Haveli</td>
<td>65.00</td>
<td>0.07</td>
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<tr>
<td>4</td>
<td>Baramati</td>
<td>28.60</td>
<td>0.02</td>
</tr>
<tr>
<td>5</td>
<td>Daund</td>
<td>20.70</td>
<td>0.02</td>
</tr>
<tr>
<td>6</td>
<td>Maval</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Mulashi</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Velhe</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>Junnar</td>
<td>12.50</td>
<td>0.009</td>
</tr>
<tr>
<td>10</td>
<td>Indapur</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>Khed</td>
<td>02.00</td>
<td>0.001</td>
</tr>
<tr>
<td>12</td>
<td>Shirur</td>
<td>16.00</td>
<td>0.01</td>
</tr>
<tr>
<td>13</td>
<td>Ambegaon</td>
<td>17.44</td>
<td>0.01</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>466.41(100.00)</td>
<td>0.04</td>
</tr>
</tbody>
</table>
In 2004-05 the area under fig cultivation was 214.17 Ha which is increased up to 364.13 Ha in 2010-11.

H) Proof of Origin (Historical records):

More than hundred years, fig variety cultivated in Pune, Saswad and Daulatabad region is famous as ‘Poona fig’. It is also known as ‘Dive Anjir’.

Fig has a great ancient and historical reference. In India, fig is belonging to the Umbar family which is presumed to be sacred. The origination of fig is believed to be in 3000 B.C. in South Arabstan.

Mughal Emperor Mohammad Tughlak had shifted his capital city from Delhi to Daulatabad in 1338 A.D. He was associated with few of his colleagues, who were well acquainted with the cultivation of the fruits in Central Asia and Kabul. These associates cultivated the different fruits in the land in Daulatabad. Fig was cultivated successfully along with grapes and strawberry, where the production of fig went on increasing. Meanwhile, the fig plant was moved on the way to Pune from Daulatabad. It is also believed that, the Great Maratha Emperor Shrimant Bajirao-1 Peshave (August 18, 1700 – April 28, 1740) had brought Figs in Saswad while returning from Bundelkhand war. He had established ‘Anjir Baug’ in Diveghar in Saswad tehsil during this period.

Especially, in 1904, First fig was commercially cultivated at Jadhavwadi of Dive village in Purandar Tehsil.

The reference was found that Dr. Chima did survey on fig in Saswad and Alandi area in 1921 which indicates Purandar Fig was famous earlier to 1921 also.

I) Method of Production:

Purandar is gaining attention since more than one century as “Anjir Aagar”. 80% of fig produced in Maharashtra is from Purandar taluka only.

The breeds of Fig under cultivation in Purandar taluka are Poona Fig, Marsels, Dienna, Dinkar, Black Ichia, Brown Tukrye, Conadriya and Excel. Poona Fig variety is commercially grown variety in Purandar Taluka since long time.

There are four types of fig according to the pollination such as Capri Fig, Smirna Fig, White San Pedro, Adriatic Common Fig. Purandar fig is categorised under as Adriatic Common Fig. Pollination is not necessary for this kind of fig, because it blooms naturally.

Method of Purandar Fig Cultivation:

Propagation:

Propagation of fig can be done from seeds, cuttings, layers, grafts and by tissue culture. In Purandar cuttings and layers methods are used for propagation of fig.
1. Planting:
The planting is started on onset rainy season. The layout for planting is square. Spacing depends on variety and soil type. The recommended spacing for Poona fig is 5 m x 5 m (400 plants/ha). It is 4.5 m x 3 m for light soil. Pits of 60 cm x 60 cm x 60 cm size are dug and exposed to sun for about 15 days, and then filled with a mixture of compost, top soil and sand (1:1:1); 2 kg of neem or castor cake/pit. Planting can preferably be taken up on an overcast day. When grafts are used the graft joint should remain above the ground level. Once the tree is planted the soil around the plant should be tamped firmly. Water is applied immediately after planting.

2. Training:
After planting, the trees are allowed to grow for about a meter and then it is topped, which induces side branches all-round the main stem. Initially they are trained to single stem to boost a wide, proportioned crown with a mechanically strong framework having evenly distributed laterals. The interior of the bush should be maintained free of suckers, dry and sick branches.

3. Fruiting Period:
The fruiting period of Purandar Fig is in 2 Bahars i.e. Purandar Figs can be bloomed two times in a year. Blossom that takes places in the months of July and August in rainy season (Kharif) is known as Khatta Bahar or Mrug Bahar. Fruits of fig which ripen in this season have moderate sweet taste. The colour of the fruits is also not so attractive. On the other hand, it has good demand in the market due to lack of availability of other fruits, in Kharif season. These fruits are mostly used for making jelly. The subsequent period of blossom comes in the months of March, April and May, which is known as Meetha Bahar (Sweet Blossom) or Hast Bahar. The fruits in this season have a sweet taste and the quality of the fruits is excellent, which give good earnings. The fruits are also eye catching. Hence, Purandar Fig fruits are available in the market throughout the year.

4. Pruning:
Pruning in fig is practiced annually to stimulate production of new growth, and bearing fruits. The time and type of pruning vary with location, variety and number of crops harvested annually. Watering is disengaged 1 month before fruiting period (Bahar) of the fig. After cleaning and inter cultivation of the field, Pruning is done. In Purandar taluka, pruning is done in the month of May for Kahtta Bahar and in the month of August-September for Mitha Bahar.

5. Manuring and fertilizer:
Nutrient requirements vary according to the variety of fig and soil type. A general manure and fertilizer recommendation for fig is given in table.

<table>
<thead>
<tr>
<th>Age of plant (year)</th>
<th>Organic manure (kg)</th>
<th>Inorganic manure (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Farmyard manure</td>
<td>Oil cake*</td>
</tr>
<tr>
<td>1-2</td>
<td>15.0</td>
<td>0.5</td>
</tr>
<tr>
<td>3-5</td>
<td>25.0</td>
<td>1.0-1.5</td>
</tr>
<tr>
<td>Above 5</td>
<td>40.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>
6. **Irrigation:**
After the plants are set in the field, regular watering is essential until they are well established. Fig plants can sustain heat and drought. But commercial fig production is possible if plants are timely irrigated. Such plants produce greater shoot growth and higher yields of superior quality fruits. Loose and sandy soils require larger quantities of water than heavy soil. Either drip or flood irrigation can be practiced. The drip irrigation minimizes water requirement and allows fertilizer application through irrigation water.

In Pune, particularly in Purandar taluka, water is irrigated from well. Such well irrigated water is sweet and salt free which gives sweet taste to Purandar Fig.

Water irrigation is practiced in the month of October-November for 8 to 10 days, during months of December to February for 12 to 15 days and during March to May after every 7 to 10 days.

7. **Harvesting**
After Fruiting, figs are ready to harvest within 120 to 140 days. On maturity greenish fruit turns in red, yellowish violet colour. Harvesting of the Purandar Fig is done in mid of February to June. Purandar Figs are harvested when they are completely matured and become soft and slightly wilted at the neck.

Figs are handpicked from the trees by cutting or twisting the neck at the stem end. After picking, figs are carefully sorted. The diseased and damaged ones are culled. Fruits are graded for size as 50g, 40-50g and 30-40g. Purandar Figs can be held for a period of 7-10 days, at 0°C and 85 to 90 % relative humidity.

Figs produced in Purandar are mostly sold as fresh fruits. Apart from drying and canning, Purandar Fig pulp are processed into paste and jelly.

**J) Uniqueness**

**Geographical Significance:**

**Climate:**
The agro-climatic factors such as Dry weather, Hilly slope, well drained medium Land are essential for Purandar Fig cultivation. Such climate is observed in Purandar taluka.

The high quality figs are produced in the region with dry climate especially at the time of fruit development and maturity. High humidity coupled with low temperature usually results in fruit splitting and low fruit quality. The plant can survive temperature as high 450C but the fruit quality deteriorates beyond 390C. Also the mature tree can withstand low temperature up to 40C. When the temperature is 15 - 360C it makes good growth of the fruit.

Purandar tehsil is blessed with Arid or semi-arid environment, high summer temperature, plenty of sunshine and moderate water. The highest temperature of Purandar tehsil is 39.050C and minimum temperature is 10.500C.
**Rainfall:**
For fig fruit the rainfall should be in the range of 600 to 800 mm. The climate of Purandar Taluka is suitable for horticulture and especially for fig fruits. The annual average rainfall is about 814mm.

The size, shape, skin colour and pulp quality of Purandar Figs are significantly affected by climate and micro climatic conditions. The size of the fruit is larger in hilly area than the fruit size in plain area.

**Soil:**
Maharashtra is important state in India. South Table Land is made by Lava. On this Table Land Basalt and Granite rocks are seen. The soil of Maharashtra is made by depreciation of rocks.

The soil of Pune District is created due to effect of the above things. Different types of soils found in Pune District such as Black soil, Purple Soil, Rock soil etc. Calcium soil is found in the Purandar Taluka. The Potassium soil ratio is more because of this, the soil is more productive such slippery land is important for fig horticulture.

The Fig can be grown on wide range of soils; light sand, rich, loam, heavy clay or limestone, provided there is sufficient depth and good drainage. The depth of the soil should be 60 to 90 cm. Medium to heavy, calcareous, well drained, deep (about 1 m) soil having pH of 6-8 is ideally suitable cultivation of fig. The Fig is one of the most salt and drought tolerant crops. It can tolerate a fairly high level of sulphate or chloride salt. Reddish black soil with high lime stone content is good for fig cultivation.

Purandar Fig is mainly cultivated on Purandar Hills. The soil of Purandar is reddish brown in colour. Hilly slopes near Chambali and Bhivari villages are best suited for Fig cultivation. Also the light and well-drained soil of Rajewadi having ample amount of lime stone and blackish soil of Sonori and Zendewadi villages of Purandar tehsil are highly suitable for Purandar Fig cultivation.

**Purandar Figs are famous for following unique features:**

- **Eye catching Appearance:**
The distinct Bell-shaped Purandar Fig with attractive violet color differentiates itself from other varieties. Its attractive violet color creates desire to the people to eat the fruit.

### Different varieties of Fig and their colour

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Variety Name</th>
<th>Cultivating Area</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purandar Fig</td>
<td>Pune district</td>
<td>Violet</td>
</tr>
<tr>
<td>2</td>
<td>Marsels</td>
<td>South India</td>
<td>Light green</td>
</tr>
<tr>
<td>3</td>
<td>Black Ichia</td>
<td>Lakhnow and Saharanpur in Uttar Pradesh</td>
<td>Gloomy purple</td>
</tr>
<tr>
<td>4</td>
<td>Brown Turkey</td>
<td>Saharanpur at UttarPradesh and Kodur at Tamil Nadu</td>
<td>Brown</td>
</tr>
</tbody>
</table>
➢ Excellent Sweet Taste:
The Purandar Fig has excellent sweet taste and it remains on the tongue for more period. The Low Acidity (0.20 – 0.22) and high Total Soluble Sugar content (15-180Brix) gives sweeter taste to Purandar Fig. It has reducing sugar 14.73% and non-reducing sugar 2.13%.

➢ High Yielding variety:
Purandar Fig is considered as the high yielding variety having good keeping quality. It has 60 – 70 Kg yield per tree while number of fruits approximately are 1150 -1200.

Under Rahuri conditions, cultivar Poona Fig produced significantly higher fruit yield as compared to other cultivars.

### Performance of different varieties under Rahuri Conditions

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Variety</th>
<th>No. of fruits/tree</th>
<th>Weight Kg/tree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poona Fig</td>
<td>1382.66</td>
<td>44.69</td>
</tr>
<tr>
<td>2</td>
<td>Dinkar</td>
<td>1156.33</td>
<td>37.50</td>
</tr>
<tr>
<td>3</td>
<td>Excel</td>
<td>797.66</td>
<td>21.33</td>
</tr>
<tr>
<td>4</td>
<td>Condria</td>
<td>930.00</td>
<td>37.43</td>
</tr>
<tr>
<td>5</td>
<td>Deanna</td>
<td>824.66</td>
<td>37.19</td>
</tr>
<tr>
<td>6</td>
<td>Chalisgaon</td>
<td>541.66</td>
<td>11.56</td>
</tr>
<tr>
<td>7</td>
<td>Maishram</td>
<td>406.66</td>
<td>12.94</td>
</tr>
</tbody>
</table>

➢ Large Size:
The size of Purandar Fig is bigger than other varieties of Fig. The approximately Fruit length of Purandar Fig is 4-5cm and Fruit breadth 3-4cm.

➢ High Pulp Content:
The Purandar Fig fruit has more than 80% pulp (Avg. 89.56%) or edible part. The Pulp colour of Purandar fig is pinkish red and is highly nutritious. The weight of Purandar fig is 60-70g. The higher weight of the Purandar Fig indicates in higher pulp content. This high quality and quantity pulp is extremely is used for fruit processing.

### Weight of different varieties under Rahuri Conditions

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Variety</th>
<th>Avg. Weight of fruit (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poona Fig</td>
<td>40.86</td>
</tr>
<tr>
<td>2</td>
<td>Dinkar</td>
<td>36.59</td>
</tr>
<tr>
<td>3</td>
<td>Excel</td>
<td>26.61</td>
</tr>
<tr>
<td>6</td>
<td>Chalisgaon</td>
<td>34.90</td>
</tr>
<tr>
<td>7</td>
<td>Maishram</td>
<td>30.47</td>
</tr>
</tbody>
</table>

➢ Best Suited variety for both seasons like Khatta Bahar and Meetha Bahar:

Purandar Figs are bloomed two times in a year. Blossom that takes places in the months of July and August in rainy season (Kharif) is known as Khatta Bahar or
Mrug Bahar. Blossom which comes in the months of March, April and May, is known as Meetha Bahar (Sweet Blossom) or Hast Bahar. Hence, Fig fruits are available in the market throughout the year.

- **Resistance to splitting:**
  This variety is suitable for planting as it does not split during maturity

- **Impact of Soil content:**
  The high Potassium and calcium content of red and black Purandar Soil is apparently responsible for the attractive violet color and size of Purandar Fig.

- **Favorable Climate:**
  The agro climatic factors like Arid or semi-arid environment, high summer temperature, plenty of sunshine and moderate water in the Purandar tehsil is highly suitable for higher production of Purandar Fig.

Purandar Fig is tolerant to meteorological parameters like moisture, temperature, wind velocity and draught.

**K) Inspection Body**

‘Akhil Maharashtra Anjir Utpadak Sanshodhan Sangh’, Pune has constituted an Inspection structure to oversee the standards and quality assurance system for inspection of every step of production of Purandar Fig and statutory compliances thereof.

This Inspection Body consists of President / Vice-President / Secretary / Treasurer of the Applicant Organization, Farmer Members, GI Experts, and Agriculture Experts.

The quality of Purandar Fig will be monitored by an Internal Watchdog Mechanism in order to maintain the original physical and chemical characteristics as per GI registration.

The system of internal watchdog mechanism will consist of following committee members:

i) Representative of Producer group of Purandar Fig
ii) Three (3) farmers from the area under cultivation
iii) GI Experts
iv) Agriculture Expert.

This committee will also help to regulate the use of Geographical Indications for the welfare of local farming community. The committee will frame the terms and conditions to use brand name of Purandar Fig by any of the marketing agency. The logo of Purandar Fig GI will be used to create brand image.

**L) Others**

Purandar Figs produces good quality and quantity of pulp which is suitable for fruit processing. Following value added fruits products are made from Purandar Fig:

- Fig jam
- Fig pulp
• Fig sweet meat
• Fig cake
• Fig powder
• Fig jelly
• Dry Fig
• Fig fruit leather

Medicinal uses of Figs:

Fig is used in indigenous system of medicine like Ayurveda, Siddha, Unani and Homoeopathy. Different biologically active compounds were isolated from this plant. The barks, leaves, fruits are considered to be very effective in various treatments, such as diabetes, skin diseases, ulcers, dysentery, diarrhoea, stomach-ache, piles. Latex is widely used for warts, skin ulcers and sores, and taken as a purgative and vermifuge.

Health Benefits of Fig:

1. Fig is good source of Calcium, Iron, Minerals, Vitamin A and C.
2. It works as a laxative and appetizer.
3. It also helps to amplify the quantity of haemoglobin in the blood.

G.I. APPLICATION NUMBER – 501
Application Date: 30-09-2014

Application is made by Navnirmiti Shetkari Mandal, Asoda, Jalgaon, Taluka: Asoda, District: Jalgaon – 425 101, Maharashtra, India. for Registration in Part A of the Register of JALGAON BRINJAL under Application No: 501 in respect of Brinjal 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 : Navnirmiti Shetkari Mandal

B) Address : Navnirmiti Shetkari Mandal,
Asoda, Taluka: Asoda, District: Jalgaon – 425 101, Maharashtra, India

C) Types of Goods : Class 31 – Brinjal

D) Specification:

- The golden-brown color and tempting taste after roasting the brinjals make this variety popular among people. Jalgaon Brinjal is specifically used for making traditional spicy dish ‘Khandeshi bharit’. ‘Khandeshi bharit’ made from Jalgaon Brinjal is gaining attention now a days globally.
- The traditional Jalgaon Brinjal variety is preserved and maintained by the farmers for more than five centuries.
- Jalgaon Brinjal is large in size as with soft skin and has less number of thorns. The weight of brinjal is approximately 500g to 2500g. More specifically brinjals from Bamnod village in Yaval Taluka of Jalgaon has a characteristic large size
- Brinjals produced in Jalgaon district secrete more amount of oil on roasting which gives very distinct taste to Bharit i.e. mashed brinjal.
- The Jalgaon Brinjal has less number of seeds inside the brinjal pulp.
- Shape of Bharit Brinjal of Jalgaon is four times larger than regular brinjal .
- Presence of rich medium black fertile soil in Khandesh (Jalgaon is located within the productive irrigated, agricultural region of Khandesh) makes brinjal cultivation more favourable.
- The climate of Jalgaon district is prominently responsible for the higher yield and better quality of Jalgaon Brinjal variety.
- Bharit Brinjal cultivated in Jalgaon district is long, oval and slender shaped.
- Colour of Jalgaon Brinjal is pale green with white stripes.

E) Name of the Geographical Indication:

JALGAON BRINJAL

GI Journal No. 80 25 February 02, 2016
F) Description of the Goods:

Jalgaon Brinjal

- Color: Pale green color with white stripes.
- Shape: long slender shaped and oval shaped
- Size: large sized which is four times larger than normal size.
- Yield: 250-300 quintals/ha
- Seed: Less in number
- Plant Height: 5-6 ft
- Weight: 500g to 2500g
- Taste: Less bitter
- Thorns: Less
- Fruit skin: Soft
- Pulp Quantity: High

G) Geographical area of Production and Map as shown in page no: 32

Jalgaon district is located in north Maharashtra between 200 and 210 North latitudes and 740 55’ to 760 28’ East longitudes. The district consists of 15 taluks which include Jalgaon, Jamner, Erandol, Dharangaon, Bhusaval, Bodwad,Yawal, Raver, Muktainagar, Amalner, Chopda, Parola, Pachora, Chalisgaon and Bhadgaon.

Brinjal cultivation in India is estimated to cover about 8.14% vegetable area which contributes to 9% of total vegetable production. The crop is largely grown in small plots or as inter crop both for cash and domestic consumption by farmers all over India. Maharashtra is one of the major brinjal producing states in India.

Bharit Vangi ie Brinjals specifically used for preparing bharit is of great demand in Pune, Aurangabad and Mumbai cities. The famous dish, bharit prepared from these Jalgaon brinjals is served in German airlines as well. Even Tibetan people enjoy the taste of bharit by visiting Jalgaon in winter season. Asoda, Bamnod, Mamurabad, Bhadli, Bhalod and Bhusaval have higher cultivation of Bharit brinjal variety.

The area under cultivation of Jalgaon Brinjal in Jalgaon district is 150-200 Ha.

H) Proof of Origin (Historical records):

India is the centre of Origin for Brinjal or eggplant. Brinjal is considered as native to India where the major domestication of large fruited cultivars occurred. Brinjal has been cultivated in India for the last 4000 years or so and has many historical references in different languages. Maharashtra is the sixth largest brinjal producing state in the country and contributes to 5% of the total production of brinjals in the country.

Jalgaon is the city in western India, to the north of Maharashtra State which is located on the northern Deccan plateau. Jalgaon is located within the productive irrigated, agricultural region of Khandesh.

The historical evidences of the spicy ‘Khandeshi bharit’ were found in the Marathi literature by the famous poet Shri. Narayan Vyas Bahaliye of ‘Mahanubhav
Community’ in the 15th century. It is stated that the traditional Jalgaon Brinjal variety is preserved since 15th century.

We find the reference of Jalgaon brinjal in tribal folk songs of Jalgaon district. The Leva Patil community in Jalgaon have the tradition of serving Brinjal dish which has led farmers to plant this type of brinjal in huge quantity.

Area in acres under Brinjal Cultivation in each taluka of Jalgaon District in 1956-57.

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Taluka or peta</th>
<th>Brinjal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Amalner</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>Bhadgaon</td>
<td>37</td>
</tr>
<tr>
<td>3</td>
<td>Bhusawal</td>
<td>92</td>
</tr>
<tr>
<td>4</td>
<td>Chalisgaon</td>
<td>67</td>
</tr>
<tr>
<td>5</td>
<td>Chopda</td>
<td>52</td>
</tr>
<tr>
<td>6</td>
<td>Edlabad</td>
<td>26</td>
</tr>
<tr>
<td>7</td>
<td>Erandol</td>
<td>92</td>
</tr>
<tr>
<td>8</td>
<td>Jalgaon</td>
<td>86</td>
</tr>
<tr>
<td>9</td>
<td>Janmer</td>
<td>46</td>
</tr>
<tr>
<td>10</td>
<td>Pachora</td>
<td>51</td>
</tr>
<tr>
<td>11</td>
<td>Parola</td>
<td>27</td>
</tr>
<tr>
<td>12</td>
<td>Raver</td>
<td>78</td>
</tr>
<tr>
<td>13</td>
<td>Yawal</td>
<td>117</td>
</tr>
<tr>
<td><strong>District Total</strong></td>
<td><strong>851</strong></td>
<td></td>
</tr>
</tbody>
</table>

From the above table it can be observed that large area in Yaval taluka was under brinjal cultivation even 60 years ago in Jalgaon.

I) **Method of Production:**

Brinjal plant is perennial. Presently commercial cultivation of brinjal, especially green bharit brinjal with white stripes has been started from many years. These bharit brinjals are used for making the popular dish known as ‘Wangyache Bharit’ (mashed brinjal).

• The time of sowing of seed and transplanting of seedlings varies according to the agro-climatic regions. Brinjal cultivation is done in April, July and September. Planting season for bharit brinjal in Jalgaon is from November to January. Before planting the field is ploughed 4 times.

• Brinjal seeds are sown in rows 5 cm apart in the nursery beds which are 6-12 mm raised. The nursery beds are covered with plastic or straw mulch till the germination of seeds. Seedlings of 4-6 weeks old are transplanted in a well prepared field of which surface soil is mixed thoroughly with farm yard manure and small quantity of super phosphate. Before planting, beds are watered using drip system for 8-12 hrs.

• The planting distance depends on soil fertility, season and variety. Usually for bushy non spreading type spacing should be 50 cms from row to row and 60 cms from plant to plant. For spreading variety row to row spacing should be 75 cm to 90 cm and plant to plant should be 60-70 cm. Gap filling is done at the 7th day after transplantation. Inflorescence appears after 4-5 weeks of planting. Timely irrigation is mandatory for high yield of brinjal.
Further harvesting is carried out just before maturity. Brinjals are ready for harvesting after 3.5 to 4 months. Brinjals should be severed from the plant by cutting with small shears of knife. Fruits are allowed to gain good size and color till they remain bright, glossy in appearance. Grading of fruit is done according to the size of the fruit. Pest affected and damaged fruits are separated. The matured good quality brinjals are then packed and sent for marketing.

Average yield comes to 250-300 quintal/ha.

Unique seed preparation adopted by Bharit Brinjal growers which is well noticed mainly at Asoda from Jalgaon district:

In the month of January, good quality, big sized bharit brinjals are identified on the plant. When the color of these identified bharit brinjals turn yellow, they are plucked from the plant and sun dried for 8 days. After that brinjals are broked open and cleaned with water and seeds are separated. Seeds floating on water are discarded due to low quality. Seeds that are at the bottom of water are selected for germination. After germination, saplings are ready for transplantation in 10-15 days.

Farmers prefer small-sized seeds to get large brinjal crop from Jalgaon's rich medium-black fertile soil. This large-sized bharit brinjals have now turned popular throughout the State.

Farmers in Asoda village from Jalgaon are concentrating specifically on the growth of brinjals (green brinjals with white strips) that are used for preparing bharit which are locally called as “bharit vange”

These special type of bharit green brinjals with white strips cannot grow in the region other than Jalgaon and if they are grown elsewhere, its unique taste is lost. Many new hybrid varieties have been tried of these bharit brinjals but large demand is only for conventional variety.

The brinjals cultivated in this region are specifically used for preparing Bharit (mashed brinjal).

Preparation Method of Bharit from Jalgaon Brinjal:

1. Initially bharit brinjal (locally named as bharit vange) is roasted on stove that uses charcoal or wood as fuel (chula).
2. Roast the brinjal for about 30-40 mins until its cover turns blackish.
3. Oil which is secreted after roasting is more in case of jalgaon brinjal that itself gives brinjal its unique taste.
4. Then garlic cloves and chillies are shallow fried and grinded in mortar and pestle by traditional method.
5. Black covering of brinjals is further removed and they are smashed by pestle.
6. Onion and coriander leaves are to be finely chopped.
7. Oil is taken in thick bottom kadhai. Once oil is hot enough, coconut slices and peanuts are added and roasted until they turn golden brown.
8. Further add chopped green onion and coriander and fry for few minutes.
9. Further the grinded paste of garlic and chilly is added to the mashed brinjal along with salt and this mixture is then added to the oil which contains chopped onion, coriander, coconut pieces and peanuts.
10. Lower the flame and let it cook for few minutes covering the kadhai.
11. The bharit is ready which is served along with bhakri.
J) Uniqueness

1. Geographical Significance

Jalgaon is known as the city of Brinjals. Jalgaon received special recognition because of this vegetable. Light Green color brinjals from Jalgaon are famous for bharit (mashed brinjal). Yaval and Bhusaval talukas in Jalgaon district are very famous for the brinjals that are specifically used for preparing bharit and hence they are locally known as “Bharit vanga”.

Bamnod village in Yaval Taluka is famous for large-sized variety of Bharit Brinjals. Farmers in this region specifically cultivate bharit vangi (mashed brinjal). Village rejoices unique medium spicy taste of Bharit in the form of small group parties and get-togethers. These bharit brinjals are grown in the area near Tapi river basin.

Asoda is a village in Jalgaon District; Maharashtra state in western India, which itself is located on the northern Deccan Plateau. It is 5 km from Jalgaon, located within the productive, irrigated agricultural region of Khandesh. Asoda is famous for bharit brinjal cultivation. Other villages in which cultivation of bharit brinjal occurs are Mamurabad, Bhadli and Bhalod.

Soil in Jalgaon which is black and well drained makes brinjal cultivation most favourable in this region.

Bharit brinjal cultivars prefer small-sized seeds to get large brinjal crop from Khandesh's rich medium-black fertile soil. These large-sized bharit brinjals have now turned popular throughout the State.

Soil:
The soils of Jalgaon differ from rest of the Deccan trap soil area which are mostly alluvial in origin, transported from the mountain ranges. Deep black soils are observed in northern part of Amalner, Erandol, Jalgaon, Bhusaval and Edilabad talukas. Medium black soils are present in the central belt of the Tapi River and southern hills. In Tapi alluvial basin soils are black alluvial clay present in the southern parts of Yaval, Raver, Chopda, Jalgaon, Bhusaval, Chalisgaon, Amalner, and Bhadgaon. Loamy soils are present in the southern-most part of Amalner, Erandol, Jalgaon and Bhusaval.

For high yield of brinjal, deep, fertile and well-drained is required. Generally, silt-loam and clay loam soils are preferred for brinjal cultivation. Bharit brinjal grows well in black well drained soil which is present near Tapi river basin. So bharit brinjal is cultivated on large scale in the villages near Tapi river basin.

Rainfall:
The annual rainfall in the district varies from about 660.40mm-763.40mm

Temperature:
The optimum temperature for growth and Brinjal fruit set is 20-30°C. While the temperature of Jalgaon ranges from 10.8 to 42.20C. Cultivation of bharit brinjal in Jalgaon occurs from November to January due to favourable climatic conditions. During winter i.e. from November to December the temperature fluctuates between 20-30°C which makes it suitable for brinjal cultivation.
Humidity:
Climate of Jalgaon is hot and humid. The climate of district is characterized by a hot summer and general dryness throughout the year except during the south-west monsoon season i.e. from June to September.

Thus this unique combination of climate, soil and rainfall of Jalgaon district is favourable for high yielding and good quality of Jalgaon Brinjal

Uniqueness of Jalgaon Brinjal:

‘Vangyache bharit’ is a special khandesh dish made typically by Leva Patil community of Jalgaon. ‘Bharit puri’ or ‘bharit bhakri’ with ‘koshimbir’ is the best traditional spicy treat for many occasions for Leva patil community as well as other communities from Jalgaon. This ‘Bharit Vange’ i.e. brinjal has turn into an identity of Jalgaon these days.

1. The golden-brown color and tempting taste after roasting the brinjals make this variety popular among people. Jalgaon Brinjal is specifically used for making traditional spicy dish ‘Khandeshi Bharit’.
2. ‘Khandeshi Bharit’ made from Jalgaon Brinjal is gaining attention now a day’s all over Maharashtra state and also globally as German airlines have accepted its unique taste and have introduced mashed brinjal dish in their regular food menus in the airlines.
3. The traditional Jalgaon Brinjal variety is preserved and maintained by the farmers for more than five centuries.
4. Jalgaon Brinjal is large in size as compared to other varieties very heavy in weight. The weight of brinjal is approximately 100g to 500g. More specifically brinjals from Bamnod village in Yaval Taluka of Jalgaon has a characteristic large size.
5. Brinjals produced in Jalgaon district secrete more amount of oil on roasting which gives very distinct taste to bharit i.e. mashed brinjal.
6. The Jalgaon brinjal has less number of seeds inside the brinjal.
7. The shape of bharit brinjal of Jalgaon is four times larger than regular brinjal.
8. Presence of rich medium black fertile soil in Khandesh (Jalgaon is located within the productive irrigated, agricultural region of Khandesh) makes bharit brinjal cultivation more favourable.
9. The climate of Jalgaon district is prominently responsible for the higher yield and better quality of Jalgaon Brinjal variety.
10. Bharit brinjal cultivated in Jalgaon district is long and oval, slender shaped.
11. Colour of Jalgaon Brinjal is pale green with white stripes.

Comparative analysis of Jalgaon Brinjal with that of another traditional Amravati Bharit Brinjal:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Morphological Characters</th>
<th>Characteristics of Jalgaon Brinjal</th>
<th>Characteristics of Amravati Bharit Brinjal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Colour</td>
<td>Green with white stripes</td>
<td>Greenish purple</td>
</tr>
<tr>
<td>2.</td>
<td>Size</td>
<td>Large</td>
<td>Smaller than Jalgaon Brinjal</td>
</tr>
</tbody>
</table>
3. Weight 100 -500 gms 150-175 gms

4. Oil secretion on roasting Yes No

5. Thorns Less More as compared to Jalgaon Brinjal

K) Inspection Body

Navnirmiti Shetkari Mandal, Asoda, Jalgaon has constituted an Inspection structure to oversee the standards and quality assurance system for inspection of every step of production of Jalgaon Brinjal and statutory compliances thereof.

This Inspection Body consists of President / Vice-President / Secretary / Treasurer of the Applicant Organization, Farmer Members, GI Experts, and Agriculture Experts.

The quality of Jalgaon Brinjal will be monitored by an Internal Watchdog Mechanism in order to maintain the original physical and chemical characteristics as per GI registration.

The system of internal watchdog mechanism will consist of following committee members:

   i) Representative of Producer group of Jalgaon Brinjal

   ii) Three (3) farmers from the area under cultivation

   iii) GI Experts

   iv) Agriculture Expert.

This committee will also help to regulate the use of Geographical Indications for the welfare of local farming community. The committee will frame the terms and conditions to use brand name of Jalgaon Brinjal by any of the marketing agency. The logo of Jalgaon Brinjal GI will be used to create brand image.

L) Others

Medicinal uses of Jalgaon Brinjal:
- It controls cholesterol and hence recommended for the people with high cholesterol content.
- Brinjal is very healthy for diabetic patients as it acts as anti-diabetic.
- It is used for treating epilepsy and convulsions.
- It is used for treatment of cancers and measles.
- Brinjal is rich source of vitamin A,B & C, calcium, fibre, folic acid and potassium.
- It is used in treatment of obesity.
- It is used for reducing pains in the joints.

Culinary uses of Jalgaon Brinjal:

Jalgaon Brinjal is mainly used for preparation of bharit i.e. Mashed Brinjals.
G.I. APPLICATION NUMBER – 502
Application Date: 30-09-2014


A) Name of the Applicant : Akhil Maharashtra Dalimb Utpadak Sanshodhan Sangh

B) Address : Akhil Maharashtra Dalimb Utpadak Sanshodhan Sangh, E- 15, Nisarg, Market Yard, Gultekadi, District: Pune – 411 037, Maharashtra, India

C) Types of Goods : Class 31 – Pomegranate

D) Specification:

- Solapur Pomegranate is gaining attention in domestic as well as International market due to its Attractive Color, Smooth and Glossy Outer Rind with Round and Large Shape."Ganesh" and “Bhagwa” are famous Pomegranate varieties in Solapur District.

  Fruit length and breadth of Solapur Pomegranate:
  - 8.3cm and 8.5cm (cv. Ganesh)
  - 8.1cm and 8.08cm (cv. Bhagwa)

- The Prominent Shape and Size of Juicy, Bold Arils of Solapur Pomegranate with Soft and Small Seeds increase the fruit quality and acceptability of Solapur region. The number of Arils per Fruit, Size and Weight of Arils of Solapur Pomegranate is significantly high than other varieties.

- High temperature and low moisture content in the atmosphere for sufficiently long period of Solapur District is apparently responsible for obtaining unique Agreeable Sweet taste with Desirable Acidity of Solapur Pomegranate.

  Solapur Pomegranate has
  - TSS-16.100 Brix and Acidity 0.45% (cv. Ganesh).
  - TSS-15.95 Brix and Acidity 0.50% (cv. Bhagwa).

- Solapur Pomegranate is heavier and having more number of arils than other Pomegranate varieties
  Weight of Solapur Pomegranate
  - (cv. Ganesh) 320.50g having Number of arils 708
  - (cv. Bhagwa) 310.25 having number arils 510.20.
The Solapur Pomegranate has Glossy Leathery, Smooth, Tough Rind with color varying from Reddish Yellow (cv. Ganesh) to Dark Red (cv. Bhagwa).

The Yield of Solapur Pomegranate is high as compared to other Pomegranate from other regions like Himachal Pradesh, Rajasthan, New Delhi.

The yield of Solapur Pomegranate is (kg/tree):
- 12.53 (cv. Ganesh)
- 10.20 (cv. Bhagwa)

E) Name of the Geographical Indication:

SOLAPUR POMEGRANATE

F) Description of the Goods:

Pomegranate is called as “Fruit of Paradise”.
The major varieties of Pomegranate which are cultivated in Solapur are “Ganesh” and “Bhagwa”.
Pomegranate from Solapur is famous for its special characteristics which are as follows –

Ganesh variety is a prolific bearer
- Appearance : Pinkish or Reddish Yellow rind colour
- Size : Medium
- Taste : Pleasant and Sweet
- Arils : Light Pink
- Seeds : Soft and Small
- TSS : 16.100 Brix with more juice and less water Content
- Acceptability : Worldwide acceptance

Evaluation of Solapur Ganesh Pomegranate

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant height (Cm)</td>
<td>215.35</td>
</tr>
<tr>
<td>No. of fruit per tree</td>
<td>39.10</td>
</tr>
<tr>
<td>Fruit weight (gm)</td>
<td>320.50</td>
</tr>
<tr>
<td>Yield/Tree (Kg)</td>
<td>12.53</td>
</tr>
<tr>
<td>Fruit Length (mm)</td>
<td>83.64</td>
</tr>
<tr>
<td>Fruit Diameter (mm)</td>
<td>85.12</td>
</tr>
<tr>
<td>Rind thickness (mm)</td>
<td>2.28</td>
</tr>
<tr>
<td>Rind weight (gm)</td>
<td>109.87</td>
</tr>
<tr>
<td>No of arils per fruit</td>
<td>708.00</td>
</tr>
</tbody>
</table>
Bhagwa variety

- **Appearance**: Attractive Glossy Red rind colour
- **Size**: Medium
- **Taste**: Sweet
- **Arils**: Bold and attractive Red in colour
- **Seeds**: Soft and small
- **TSS**: 15.950 Brix
- **Acceptability**: Worldwide acceptance

### Evaluation of Solapur Bhagwa Pomegranate

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant height (Cm)</td>
<td>191.20</td>
</tr>
<tr>
<td>No. of fruit per tree</td>
<td>32.87</td>
</tr>
<tr>
<td>Fruit weight (gm)</td>
<td>310.25</td>
</tr>
<tr>
<td>Yield/Tree (Kg)</td>
<td>10.20</td>
</tr>
<tr>
<td>Fruit Length (mm)</td>
<td>81.12</td>
</tr>
<tr>
<td>Fruit Diameter (mm)</td>
<td>80.84</td>
</tr>
<tr>
<td>Rind thickness (mm)</td>
<td>3.20</td>
</tr>
<tr>
<td>Rind weight (gm)</td>
<td>130.84</td>
</tr>
<tr>
<td>No of arils per fruit</td>
<td>510.20</td>
</tr>
</tbody>
</table>

### G) Geographical area of Production and Map as shown in page no: 46

According to National Horticulture Board of India, Maharashtra State is considered as “Pomegranate Basket” in India, largely contributing Pomegranate cultivation. Pomegranate season is year round in Maharashtra.

Solapur is a ‘Pomegranate Hub’ of Maharashtra. Solapur District is located in southwestern region of Maharashtra. Geographically Solapur is located between 17.10° to 18.32° North latitude and 74.42° to 76.15° East longitude, and lies in the basins of Nira, Bhima, Sina and Man rivers.

Most of the Pomegranate production in Maharashtra state is from Solapur.

In ‘Assessment of Pomegranate orchard using Remote Sensing and GIS techniques for the Solapur, Maharashtra’ analysis study it was observed that most of Pomegranate area concentrated in western part of Solapur District. Solapur Pomegranate cultivation is highly concentrated in Sangola, Malshiras, Mangalwedha, and Pandharpur tehsils.

Sangola area of Solapur District has been emerged as the well known “Pocket for Pomegranate” cultivation. Ganesh and Bhagwa are the varieties of Pomegranates from this region are famous for their quality.

Solapur District from Maharashtra state is known as the “Pomegranate city” for its vast production of Pomegranate. Solapur Pomegranate is famous for its refreshing sweet juice and valued for its medicinal as well as nutritional properties. Pomegranate is a favorite dessert fruit, popularly known as “Anar” or “Dalimb” in local language. Solapur District is producing about 85 percent of the total Maharashtra’s production of Pomegranate.
Production of Pomegranate in Solapur

<table>
<thead>
<tr>
<th>Year</th>
<th>Production in ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>34.81</td>
</tr>
<tr>
<td>2009-10</td>
<td>37.18</td>
</tr>
<tr>
<td>2010-11</td>
<td>40.5</td>
</tr>
</tbody>
</table>

Solapur is leading in Pomegranate cultivation in Maharashtra. According to Agriculture Department, in Solapur District during the year of 2010-11 the area under Pomegranate cultivation was 11,500 ha. and the production was 89.81 Lac. MT. In the recent years the area under Pomegranate cultivation of Solapur District is increasing rapidly. Today it has reach to 28,000 ha.

This indicates the monopoly of Solapur District in the production and cultivation of Pomegranate.

National Research Center for Pomegranate, Solapur is established in Kegaon, Solapur District on 16 June 2005 as Solapur become famous for Pomegranate in Maharashtra as well as in India.

H) Proof of Origin (Historical records):

Pomegranate (Punica granatum L.) is the most favorite table fruit belonging to the Punicaceae family. Origin of Pomegranate is Baluchistan in Iran and Himalaya in northern India. It grows commercially in arid and semi-arid regions of India.

Pomegranate (Dalimb), grown in the Solapur District, occupied an area of 74 ha in 1967-68.

Mr. Prabhakar Chandane, a leading farmer and educationist from Sangola tehsil District Solapur, introduced Pomegranate as a cash plant in Solapur District, in 1974. During 1972, Solapur was facing drought like condition which increased the necessity of Pomegranate cultivation since it is hardy and cash plant. Sangola was selected for Pomegranate cultivation because it receives less rainfall during monsoon. 1400 Pomegranate plants were planted in Sangola in 1974.

Two to three decades ago, the area under Pomegranate cultivation in Solapur District was approximately 1844 ha., which produced 11064 tons of Pomegranates. Since 1975 Pomegranate production in Solapur District has increased tremendously.

By 1980 many farmers joined Mr. Chandane in further expansion of the area under Pomegranate cultivation. In 1983-84 Commercial cultivation of Pomegranate has been started in Sangola tehsil.

In 1992-93 Area under Pomegranate cultivation in Solapur District was 5996 Ha.

In 2004 the area under Pomegranate fruit in Solapur District was 17685 ha. While Sangola tehsil is leading in area under Pomegranate cultivation with 7712 ha.

Export of Solapur Pomegranate has been started since 1999 to UAE and UK.
I) **Method of Production:**

Pomegranate is a beneficial fruit plant with low water and less cost requirement. In Solapur District Ganesh, Bhagwa, Arkta and Mrudula varieties are used for commercial purpose.

**Seed Selection:**
Pomegranate is having juicy covering around its seeds called arils which decomposed very easily. So arils are crushed in cloth to remove the juice and separate the seeds.

Then seeds are dried in sun for 5-6 days. The seeds are preserved by rubbing ash on them. Seedlings grown from Pomegranate seeds are used for transplantation after one year.

Also “Guti Kalam” is a type of root stock used for planting the Pomegranate plant.

**Plantation:**
- According to water availability, the planting period is decided. Mostly the plantation of Pomegranate is done in February-March or July- August.
- The land is ploughed 4-6 times to make the soil suitable for planting or growing plants.
- According to Soil quality, small pits are made with size 1 x 1 x 1m or 0.75 x 0.75 x 0.75 m.
- Till May, farmer keeps the pits open, so soil gets sterile due to sunlight during this period.
- Pits are partially filled with soil, sand or murum.
- Before planting the Pomegranate seeds or rootstock in the pits, pits are filled with Organic fertilizers like well decomposed cattle manure, compost or farmyard manure.
- Seedlings grown in polythene bags or rootstocks are placed over it, and then covered with soil. Small amount of water is provided.
- The spacing between two plants are (cv. Bhagwa) 4.5 m x 3 m (740 plants/ha) and for (cv. Ganesh) 5 x 4 m (500 plants / ha).
- Pomegranate is year round plant. It blooms 3 times in the year. There are three main seasons of flowering known as ‘Ambe bahar, Mrig bahar and Hasta bahar’.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Bahar</th>
<th>Flowering Time</th>
<th>Period of Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mrig</td>
<td>June-August</td>
<td>November-March</td>
</tr>
<tr>
<td>2</td>
<td>Hasta</td>
<td>October- November</td>
<td>February-May</td>
</tr>
<tr>
<td>3</td>
<td>Ambe</td>
<td>January-February</td>
<td>June - August</td>
</tr>
</tbody>
</table>

**Water management:**
Solapur District is situated in the river basin of the Nira, Bhima, Sina and Man rivers. Rivers and lakes are main resources for surface irrigation since Solapur District receives low and irregular distribution of rainfall. Drip water irrigation is used for irrigation purpose.
**Nutrition management:**
Organic fertilizers like well decomposed cattle manure, compost or farmyard manure is used as fertilizer. “Jivamrut”, “Amrut Pani” and “Dashparni Ark” are the homemade pesticides used to spray on Pomegranate.

**Harvesting:**
The plants usually bear fruit three years after transplantation.

- Pomegranate Fruits are matured approximately 5-6 months from the period of flowering. Pomegranate fruits are harvested when outer rind has gained distinctive color and created metallic sound after tapping.
- Fully Mature Pomegranate fruits are immediately plucked from the plants to avoid fruit cracking.
- Early harvesting of Pomegranate fruits decreases keeping quality and increases the chances of damage during handling and transport.
- Fruits are harvested with the help of secateurs by retaining 1 cm stalk with the fruit.
- All the Pomegranate fruits are harvested in 2-3 pickings within a span of one month.

The harvested fruits are kept in shade for a week. This makes the skin harder and stands better in transportation.

**Post Harvesting:**
The edible part of the fruit is the seeds having a fleshy covering and called arils, which are eaten fresh or used for making juice, jam and paste. In addition, the fruit is also valued for its pharmaceutical properties. The fruit peel, and the tree stem and root bark and leaves are good source of secondary metabolites such as tannins, dyes and alkaloids.

**Storage:**
Solapur Pomegranate can be store till 2 months at 5°C temperature.

**J) Uniqueness**

1. **Geographical Significance**

Solapur District has more suitable climatic factors and appropriate geological conditions to produce good quality Pomegranate in natural way on large scale.

Hot and dry region with less water availability, high temperature for sufficiently long period, low humidity and extremely well suited soil of Solapur District is favorable for high yield and good quality of Pomegranate. Plenty of sunlight gives best bloom and best quality of Pomegranate fruit. Solapur District is blessed with abundant sunlight with low humid weather which is prominently responsible for the good growth of Pomegranate and less chances of disease incurrence.

Sangola area of Solapur District has been emerged as the well known pocket for Pomegranate cultivation.
According to case study on ‘contribution of Sangola tehsil for Pomegranate cultivation’ following agro climatic factors of Sangola are prominently responsible for increasing Pomegranate production in this region.

1. Abundant sunlight
2. Hot and dry temperature for sufficiently long period
3. Shallow and well drained soil
4. Less water availability

**Soil:**
The geographical foundation of soils existing in Solapur District is mainly from Deccan trap of volcanic origin that is ‘Basalt’. The soil is underlain by partially decomposed basaltic rock locally known as ‘Murum’,

The most favorable soil parameters for Pomegranate cultivation are

1. Light and medium deep soil
2. 30 to 60 cm depth
3. Less water holding capacity of soil
4. 6.5 to 8 pH
5. 3 to 5% Slope of soil

According to ‘Land Assessment for Horticulture (Pomegranate) Plant Using GIS and Fuzzy Decision Analysis in the Sangola Taluka of Solapur District’ analysis study, it was observed that central south west and south part of Sangola are highly and moderately suitable for the Pomegranate cultivation.

In above GIS analysis study the factors that were considered for evaluation of the land suitability for Pomegranate production were slope, soil drainage, soil texture, soil depth, soil type, ground water availability and the present land-use of the study area. According to Agriculture office data, in Sangola tehsil the registered Pomegranate cultivated area was 10,046.1 ha. However, the plant-land evaluation results of the present study identified that in the study area, 4986 ha of the total Pomegranate plant area is currently being used, which were under highly suitable areas and 3255 ha were under moderately suitable areas.

The shallow soil of Sangola tehsil of Solapur District is having poor moisture holding capacity with soil depth less than 22.5 cm. Water availability period less than 100 days is the most favorable for cultivation and high yield of Pomegranate.

The soils of Solapur District are generally low content of total nitrogen, low to medium availability of Phosphorous, high percentage of Iron and high in available Potash.

**Effect of shallow and well-drained soil on Pomegranate cultivation**

I. **Effect on pest and diseases incurred in Pomegranate**
The shallow and well drained soil helps to reduce pest and diseases incurred on Pomegranate as compared deep soil. The percentage of disease incurred in deep soil is 3.66% while it is 2.07% in shallow soil. Since deep soil has high water holding capacity which causes fungal infection, pest and disease to Pomegranate plant.
Solapur has more than 30% area of District shallow and well drain soil. This rocky soil of Solapur District protect Pomegranate from fungal and pest infection.

II. Effect on TSS of Pomegranate fruit
TSS content of Pomegranate is more in well drained soil as compared to the Pomegranate cultivated in deep soil.
The Pomegranate plant height is more in deep soil. The fruits of the plant absorb more moisture than shallow soil. Due to high absorption of moisture the TSS value of Pomegranate fruit decreases in deep soil.

TSS of Pomegranate fruit in well drained soil is Avg. 15.720 Brix while it is Avg. 15.200 Brix in deep soil.

High TSS value indicates more sweetness. Thus soil of Solapur District is favorable for Sweet Pomegranate. Solapur Pomegranate has TSS 15.95(cv. Bhagwa) and 16.100 Brix (cv. Ganesh)

III. Effect of Fe (Iron) on color of Pomegranate fruit rind and arils
Generally rocky shallow soil contain high amount of Iron (Fe) as compared to deep soil. Fe helps in Anthocyanin Biosynthesis which leads to attractive color and glossiness to fruit rind. Fe also helps in chlorophyll and protein synthesis which ultimately increases the fruit weight and size.

Ajanale village from Sangola tehsil is having shallow, rocky well drained soil with high amount of Iron (Fe). It gives attractive color and glossiness to the Pomegranate and increases size and shape of Pomegranate from Ajnale village of Sangola Tehsil.

Weight of Solapur Pomegranate: 310.25g (cv. Bhagwa), 320.50g (cv. Ganesh).

The Solapur Pomegranate has glossy leathery, smooth, tough rind with color varying from reddish yellow (cv. Ganesh) to dark red (cv. Bhagwa).

IV. Fruit maturity period
The Maturity period of Pomegranate is less in shallow soil as compared to deep soil. The bahar period of Pomegranate is short in Shallow, well drained soil which ultimately causes 15-20 days early ripening of fruits. This is economically beneficial due to early availability of fruit in the market. So Pomegranate from Solapur fetches good price as compared to Pomegranate from other region.

The rate of Solapur Pomegranate 170 Rs/Kg.

V. Yield
Well drained shallow soil gives best yield as compared deep soil. The yield/tree (Kg) of Solapur Pomegranate is: 10.20 (cv. Bhagwa) 12.53(cv. Ganesh)

Effect of Soil Nutrient of Solapur District on Pomegranate quality:
1. Potash in soil is prominently responsible for quality of Pomegranate as compared to other micro nutrient. High content of Potash is responsible for increasing Sweetness, Shelf life, Glossiness and attractive rind color, Disease resistance capacity, Fruit weight of Pomegranate. Solapur soil is enriching with Potash content which apparently responsible for best quality of Pomegranate with sweet taste.
2. The free lime content of Solapur District soil is 5 to 10%. For the best yield of Pomegranate fruit, soil should contain free lime approximately 5-8% and not more than 15%. High amount of free lime increases the chances of diseases incurred in Pomegranate.

**Temperature:**
Pomegranate tree grow very well with less deciduous effect in tropical and subtropical conditions. The semi-arid condition i.e. hot, dry and long summer and short winter is required for Pomegranate cultivation. Long period of high temperature is required for production of sweet fruit.

The weather report says that a maximum temperature of Solapur District is 45°C in summer and minimum of 10°C in winter. The high temperature during summer in Solapur District is suitable for Pomegranate production.

**Climate:**
More sunlight, hot and dry climate of Solapur District with less humidity in the air, are the leading factors for Pomegranate cultivation in Solapur District. This type of climate provides anti-fungal effect as Pomegranate is sensitive to fungal infection.

Dry climate also increases quality and taste of Pomegranate. It also helps to increase sugar content and acidity in the Pomegranate.

**Humidity:**
Humid climate lowers the quality of Pomegranate fruit and increases incidence of fungal diseases.

Humid climate reduces acidity and sugar content in Pomegranate fruits.

In Solapur the air is mostly dry during rest of the year except monsoon season. The humidity in summer of Solapur District is between about 20 and 25 per cent on the average in the afternoons in summer while annual humidity is 37 percent.

The arid and less humid climate of Solapur District is favorable for Pomegranate cultivation. It helps in reducing occurrence of fungal diseases and also helps to increase sweetness and acidity of Pomegranate fruit.

**Rainfall:**
Solapur District is located in drought prone area of Maharashtra which receives low and irregular distribution of rainfall.

In general, Solapur District is blessed with dryness in maximum period of the year. The total command area lies in hot weather region having inadequate and scattered type rainfall in a range of 300 to 550 mm. The area is generally dry except in rainy season. Pomegranate is hardy plant, requires annual rainfall 180 to 550 mm.

Thus Solapur is having adequate rainfall for Pomegranate cultivation.

**Uniqueness of Solapur Pomegranate**
Pomegranate has emerged as a “Super Food”, owing to its medicinal and therapeutic values. Its demand is increasing in both domestic and international markets.
Pomegranate is known as hardy fruit plant as it has low water requirement and ability to withstand adverse climatic and soil conditions.

Bhagwa and Ganesh are majorly grown cultivars in Solapur region.

1. **Appearance of Solapur Pomegranate**
   Since four decades, Solapur Pomegranate is gaining attention in domestic as well as International market due to its attractive color, Smooth and Glossy outer rind with round and large shape.

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Solapur Pomegranate</th>
<th>Pomegranate from Rajasthan</th>
<th>Pomegranate from Himachal Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>cv. Ganesh</td>
<td>8.3</td>
<td>6.9</td>
<td>5.6</td>
</tr>
<tr>
<td>cv. Bhagwa</td>
<td>8.1</td>
<td>6.11</td>
<td>8.3</td>
</tr>
</tbody>
</table>

2. **Arils of Solapur Pomegranate**
   The prominent shape and size of juicy, bold arils of Solapur Pomegranate with soft and small seeds increase the fruit quality of Solapur region.

   The number of arils per fruit is significantly high in Solapur Pomegranate as compared to other varieties like Bhagwa and Kandhari Kabuli from Himachal Pradesh.

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Solapur Pomegranate</th>
<th>Pomegranate from Himachal Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>cv. Ganesh</td>
<td>1.5</td>
<td>0.98</td>
</tr>
<tr>
<td>cv. Bhagwa</td>
<td>1.94</td>
<td>1.0</td>
</tr>
<tr>
<td>Aril length(cm)</td>
<td>0.66</td>
<td>0.61</td>
</tr>
<tr>
<td>Breadth (cm)</td>
<td>0.68</td>
<td>0.83</td>
</tr>
<tr>
<td>Wt of 100 arils(g)</td>
<td>26.30</td>
<td>18.2</td>
</tr>
<tr>
<td>No of arils per fruit</td>
<td>708</td>
<td>242</td>
</tr>
<tr>
<td></td>
<td>510.20</td>
<td>413</td>
</tr>
</tbody>
</table>
3. **Weight of Solapur Pomegranate**
Solapur Pomegranate is heavier than Pomegranate from other regions like Rajasthan, Parbhani (one of the Districts of Maharashtra) and Himachal Pradesh. The Fe and Potash content in the Solapur soil help to increase the size of Solapur Pomegranate.

The weight of Solapur Pomegranate is (cv. Ganesh) 320.50g, (cv. Bhagwa) 310.25gm.

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Solapur Pomegranate</th>
<th>Pomegranate from Himachal Pradesh</th>
<th>Pomegranate from Rajasthan</th>
<th>Pomegranate From Parbhani (Maharashtra)</th>
</tr>
</thead>
<tbody>
<tr>
<td>cv. Ganesh</td>
<td>320.50</td>
<td>87.6</td>
<td>215.62</td>
<td>210.90</td>
</tr>
<tr>
<td>cv. Bhagwa</td>
<td>310.25</td>
<td>314.6</td>
<td>166.50</td>
<td></td>
</tr>
</tbody>
</table>

4. **Sweetness of Solapur Pomegranate**
High temperature and low moisture content in the atmosphere for sufficiently long period, high Potash content in the soil, shallow and well drained soil of Solapur District is apparently responsible for obtaining unique agreeable sweet taste with desirable acidity of Solapur Pomegranate.

Solapur Pomegranate has higher TSS -16.100 Brix (total soluble sugar) as compared to other varieties from Rajasthan, Parbhani (one of the Districts of Maharashtra), Himachal Pradesh.

TSS contributes significantly to the sweetness, flavor and consumer preference. The TSS value of Solapur Pomegranate indicate its higher sweetness and pleasant flavour.

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Solapur Pomegranate</th>
<th>Parbhani (Maharashtra)</th>
<th>Pomegranate from Rajasthan</th>
<th>Pomegranate from Himachal Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>cv. Ganesh</td>
<td>0.45</td>
<td>0.30</td>
<td>0.286</td>
<td>0.27</td>
</tr>
<tr>
<td>cv. Bhagwa</td>
<td>0.50</td>
<td>0.4</td>
<td>0.80</td>
<td>14.8</td>
</tr>
</tbody>
</table>

5. **Rind of Solapur Pomegranate**
The Solapur Pomegranate has glossy leathery, smooth, tough rind with color varying from reddish yellow(cv. Ganesh) to dark red(cv. Bhagwa).
The rind thickness of Solapur Pomegranate is: 0.22cm (cv. Ganesh) 0.32cm (cv. Bhagwa)

The weight of rind of Solapur Pomegranate is: 109.87g (cv. Ganesh) 130.84g (cv. Bhagwa). The Solapur Pomegranate has high rind thickness which helps to keep the arils intact and safe inside the fruit. It is one of the desiring characteristic which helps in long distance transport of fruits.

The Pomegranate from other region like Himachal Pradesh having rind thickness: 0.26cm (cv. Bhagwa).

The weight of rind of Parbhani Pomegranate is: 70.55g (cv.Ganesh)

6. **High Yield of Solapur Pomegranate**
The abundant sunlight, shallow soil having poor moisture holding capacity of Sangola tehsil from Solapur District is the most favorable for cultivation and high yield of Pomegranate.

The yield of Solapur Pomegranate is higher as compared to other Pomegranate from other regions like Himachal Pradesh, Rajasthan, New Delhi.

The yield of Solapur Pomegranate is (kg/tree): 12.53(cv. Ganesh), 10.20 (cv. Bhagwa)

The yield of Pomegranate from Rajasthan is (kg/tree):11.25(cv. Ganesh)

The yield of Pomegranate from New Delhi is (kg/tree): 8.64(cv. Ganesh)

7. **Long Shelf Life**
Solapur Pomegranate is having better keeping quality. Solapur Pomegranate can be stored till 2 months at 5°C temperature. Solapur Pomegranate has high rind thickness which increases keeping quality of Pomegranate.

K) **Inspection Body**

‘Akhil Maharashtra Dalimb Utpadak Sanshadhan Sangh, Pune’ has constituted an Inspection Body to oversee the standards and quality assurance system for inspection of every step of production of Solapur Pomegranate and statutory compliances thereof.

This Inspection Body consists of President / Vice-President / Secretary / Treasurer of the Applicant Organization, Farmer Members, GI Experts, and Agriculture Experts.

The quality of Solapur Pomegranate will be monitored by an Internal Watchdog Mechanism in order to maintain the original physical and chemical characteristics as per GI registration.

The system of internal watchdog mechanism will consist of following committee members:

i) Representative of Producer group of Solapur Pomegranate
ii) Three (3) farmers from the area under cultivation
iii) GI Experts
iv) Agriculture Expert.
This committee will also help to regulate the use of Geographical Indications for the welfare of local farming community. The committee will frame the terms and conditions to use brand name of Solapur Pomegranate by any of the marketing agency. The logo of Solapur Pomegranate GI will be used to create brand image.

L) Others

Use of Solapur Pomegranate

- The Solapur Pomegranate is consumed fresh, or it can be processed into juice, candy, syrup, jams, jelly or wine.
- The fruit is symbolic of plenty and very much liked for its cool, refreshing juice and valued for its medicinal properties.
- The grains of the fruit are also eaten fresh in most of the countries and are used as condiment.
- Pomegranate wine is prepared from Pomegranate juice which is more superior to grape wine.
- The seeds along with the fleshy portions are dried and commercially marked as Anardana and widely used as condiment.
- Solapur Pomegranate rind is used for making tooth powder, tannin. Tannin is used for leather industry and Ayurvedic medicines.
- Solapur Pomegranate Rind is also used as dye for cloth.

Medicinal Use of Solapur Pomegranate

Since ancient times, Pomegranate is known as a “healing food” with numerous beneficial effects in several diseases. In Hindi language, it is well known said that “Sou Bimar Ak Anar” means one Pomegranate may sufficient for 100 Diseased.

- The great medical physician of ancient India has prescribed formulation using almost every part of Pomegranate fruit and plant in treatment of cardiac disorders, stomachache, inflammations, tapeworm, hymenole-tidosis, dyspepsia, bronchitis.
- The juice of Pomegranate is good for leprosy patients.
- Pomegranate seeds have ample amount of “coagulated linolenic acid”. This Medicinal Oil is useful for increase micro cell life in the body. So Medicinal Oil Production Plant from Pomegranate seeds is going to set up in next few months in National Research Center on Pomegranate, Solapur.
- The bark and rind of the fruits are commonly used in dysentery and diarrhea.
## Renewal Details of Registered Geographical Indications

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>GI Application No</th>
<th>GI Name</th>
<th>Valid Upto</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>46</td>
<td>Kashmir Pashmina</td>
<td>08.12.2025</td>
</tr>
<tr>
<td>2</td>
<td>48</td>
<td>Kashmir Sozani Craft</td>
<td>18.01.2026</td>
</tr>
<tr>
<td>3</td>
<td>51</td>
<td>Kani Shawl</td>
<td>12.02.2026</td>
</tr>
<tr>
<td>4</td>
<td>52</td>
<td>Nakshi Kantha</td>
<td>06.04.2026</td>
</tr>
</tbody>
</table>
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 unique to the geographical indication.

Examples of possible Geographical Indications in India:
Some of the examples of Geographical Indications in India include Basmati Rice, Darjeeling Tea, Kancheepuram 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 unauthorized 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 interest of the producers.
The application should be in writing in the prescribed form.
The application should be addressed to the Registrar of Geographical Indications along with prescribed fee.

Who is the 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. There 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 authorized user, with respect to a registered Geographical Indication. He should apply in writing in the prescribed form along with 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 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 authorized users can initiate infringement actions.
- The authorized users can exercise right to use the Geographical indication.

Who can use the registered Geographical Indication?
Only an authorized 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 a Registered Geographical Indication is said to be infringed?
- When unauthorized 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 authorized 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 authorized user dies, his right devolves on his successor in title.

Can a registered Geographical Indication or authorized 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 authorized 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 Registrar 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 geographical indication and an authorized user which is illustrated below: