



सत्यमेव जयते

भारत सरकार

Government of India

भौगोलिक उपदर्शन पत्रिका

GEOGRAPHICAL INDICATIONS JOURNAL



बौद्धिक सम्पदा
भारत

INTELLECTUAL
PROPERTY **INDIA**

भौगोलिक उपदर्शन रजिस्ट्री

बौद्धिक सम्पदा अधिकार भवन

जी.एस.टी. रोड, गिण्डी, चेन्नै - ६०० ०३२

Geographical Indications Registry,

Intellectual Property Rights Building,

G.S.T. Road, Guindy, Chennai - 600 032.



GOVERNMENT OF INDIA
GEOGRAPHICAL INDICATIONS
JOURNAL NO. 140

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Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 140 dated August 31, 2020

G.I. APPLICATION NUMBER – 206

Application Date: 05-04-2010

Application is made by Rataul Mango Producers Association at C/o Umar Faridi, Village & Post Office, Rataul, District- Baghpat – 250 101, Uttar Pradesh, India for Registration in Part A of the Register of Rataul Mango under Application No. 206 in respect of Mango 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 : Rataul Mango Producers Association,
- B) Address : Rataul Mango Producers Association,
C/o Umar Faridi, Village & Post Office
Rataul, District- Baghpat, Uttar Pradesh –
250 101

Facilitated By:
ICAR-Central Institute for Subtropical
Horticulture, Rehmankhera, P.O. Kakori,
Lucknow, Uttar Pradesh – 226 101

- C) Name of the Geographical Indication : Rataul mango



- D) Types of Good : Class 31 – Mango
- E) Specification:

Rataul mango is medium size fruit with pleasant aroma and excellent taste i.e. very sweet and extremely delicious. Rataul mangoes are of medium size averaging around 140-220 gram. Keeping quality is good, firmness medium, fibreless with excellent medium orange in colour and sweet-very sweet taste. Rataul mangoes fruits are ovate-oblong with rounded base and no beak. Its extraordinary pleasant aroma differentiates this variety from any other variety.

Rataul Mango is grown in Rataul, Shekhpuri, Vinaypur, Mubarikpur, Tigri and Lahchoda of Tehsil Khekra, District Baghpat, Uttar Pradesh covering approximately 85 hectare land with over 10,000 trees.

Morphological description of Rataul Mango:

Tree

The tree of Rataul mango is medium in size and its trunk is erect. Its crown is irregular/spreading with a diameter of 10 m on an average. Generally, all trees exhibit spreading type of growth habit. Fruit bearing is generally light and biennial.

Emerging leaves are light green with a brownish tinge. Growing leaves are purplish brown in colour. The mature leaves are dark green in colour. Leaves are oval-lanceolate, folded, and slightly wavy. Leaf apex is attenuate to acuminate. Inflorescence is pyramidal, yellowish green throughout and without hair.

Morphological and quantitative characters of Rataul Mango

S. No.	Characters	Description
1.	Young leaf: Intensity of anthocyanin coloration	Weak
2.	Leaf Blade: Length	Long (22.0 cm – 32 cm)
3.	Leaf Blade: Width	Medium (3.0 cm – 6.0 cm)
4.	Leaf Blade: Shape	Ovate
5.	Leaf Blade: Colour	Dark Green (RHS141A & 141B)
6.	Leaf blade: twisting	Absent
7.	Leaf blade: shape of base	Acute
8.	Leaf blade: shape of apex	Attenuate to Acuminate
9.	Petiole: length	Medium (1.5-3.0 cm)
10.	Time of flowering	Medium
11.	Inflorescence: length	Short (< 20.0 cm) to Medium (20.0 cm – 30.0 cm)
12.	Inflorescence: diameter	Medium (7.5-15 cm)
13.	Inflorescence: anthocyanin colouration of axis and branches	Absent
14.	Mature fruit: length	Medium (5.0 – 10.0 cm)
15.	Mature fruit: width	Medium (5.0 – 7.0 cm)
16.	Mature fruit: shape in cross section	Circular
17.	Mature fruit: color of skin	Green (RHS140B)
18.	Mature fruit: density of lenticels	Medium
19.	Mature fruit: roughness of surface (corkiness) caused by lenticels	Absent
20.	Mature fruit: presence of cavity at stalk	Present

21.	Mature fruit: depth of cavity at stalk	Shallow
22.	Mature fruit: presence of neck	Absent
23.	Mature fruit: shape of ventral shoulder	Rounded upward
24.	Mature fruit: presence of groove in ventral shoulder	Absent
25.	Mature fruit: bulging on ventral shoulder	Absent
26.	Mature fruit: presence of sinus	Absent
27.	Mature fruit: depth of sinus	Absent
28.	Mature fruit: bulging proximal of stylar scar	Absent
29.	Maturity: Fruit ready to harvest	Medium
30.	Ripe fruit: predominant color of skin	Greenish yellow (RHSN144B, RHSN144C)
31.	Ripe fruit: main color of pulp	Medium orange (RHS22A)
32.	Stone: kernel in lateral view	Reniform
33.	Stone: embryony	Monoembryonic

Mature/Ripe Fruit Morphology

Ripened fruit is small and oval in shape. Its ventral shoulder is prominent and sloping; ventral side is higher than the dorsal; beak is not prominent and obtuse and may even be absent. Sinus is slightly marked or absent. Fruit skin is medium and greenish yellow in colour, flesh firmness medium, fiber is scanty near the skin.

Fruit quality is excellent with luscious and delightful flavor and very pleasing and distinctive smell similar to carrot. Flavor leaves an excellent taste in mouth. Keeping quality (shelf life) of ripened fruit is approximately 6-8 days.

Stone is oblong and sparse. Fine and short fiber can be found all over the surface. Long tuft of fiber on the ventral shoulder only. Stone relief of surface is ridged, kernel is reniform in shape and monoembryonic.

The yield of the tree varies with climate of the specific year, age of the tree and different agricultural practices. A well grown tree of ten years of age yields 1.5- 4 quintals per season. Old trees of more than 50 years give approximately 1-3 quintals per season.

Biochemical characters of Rataul mango

S.N.	Character	Range
1	Reducing sugar	3.5-4.0 %
2	Total sugars	14.0-16.0 %

3	TSS (Total soluble solids)	18-22° Brix
4	Total acidity	0.24-0.36 %
5	Aroma	Intermediate, pleasing

F) Description:

Rataul mango, valued by mango enthusiasts throughout the nation. The mango king (a title given by the then Prime Minister Pt. Jawaharlal Nehru), Sheikh Mohammad Afaq Faridi, fetched Rataul its recognition by developing the Rataul mango, a tiny pendant of tender yellow-orange fruit that came, native knowledge has it, from that first mango tree in the village. “India’s gift to the world, this delicious summer fruit is much more than something good to eat” states an article by Mohan Sivanand on the mangoes of Rataul in the Reader’s Digest (April, 1997).

Rataul village in the Baghpat district of Western Uttar Pradesh is one great example of culturally rich rural landscape. Mango orchards, local water bodies, farmlands and open congregation spaces define the major part of the landscape of this village which has evolved over a period of time.

The district forms a part of Yamuna-Hindon doab in Yamuna sub-basin of Indo-Gangetic plain. It occupies part of inter fluvial belt of Ganga-Yamuna in the extreme western part of the state. Rataul is a bigger rural unit of self-contained community living in small housing and huts etc.

Rataul mangoes are of medium size averaging around 140-220 gram. Rataul variety of mango is grown well in clay, sandy and loam soil with pH value ranged from 5.5-7.5 in well-drained soil. Stony waterlogged and alkaline soil conditions checks its growth and it does not perform well beyond 7.5 pH. However, the plant can withstand in slightly alkaline soil and water logging conditions. There should not be high humidity rain or frost during flowering of Rataul variety. Temperature ranged from 24° C to 35° C, 50 – 60 ft water level is suitable for Rataul mango and 75-286 cm rainfall is well suitable for Rataul mango. Higher temperature during fruit development and maturity gives better quality fruits of Rataul mango. In frequent rainfall and high humidity, Rataul mango is prone to many pests and diseases. However, hot air in the month of May adversely affect the Rataul mango which causes fruit drops but overall fruit drop is considered to be less in comparison of other varieties grown in Rataul village i.e. Dashehari, Langra, Chausa etc.

Water requirements of Rataul mango are generally based on climate, soil and age of the plant. Young plants of Rataul mango grow well in weekly irrigation during the month of April to July before the onset of monsoon. It is concluded that the young plants of Rataul mango upto 2 years old should be watered regularly. The newly planted graft of

Rataul variety approximately needs 25-30 liters water per week. In case of adult plants, five irrigations during October-February at monthly intervals are sufficient for proper growth and fruit development. No irrigation should be given from February onwards to postpone a harvest in the rainy season.

G) Geographical area of Production and Maps shown below: 18

Latitude – 28° 50'00.8" N

Longitude – 77° 20'30.2" E

The area is in Rataul, Shekhpuri, Vinaypur, Mubarikpur, Tigri and Lahchoda of Tehsil Khekra, District Baghpat, U.P. covering approximately 85 hectare land with over 10,000 trees in Baghpat District.

H) Proof of Origin (Historical records):

Rataul, a village situated in the Khekra Tehsil of Baghpat. Here most of the land in that time was acquired by Mr. Abdur Razzaq, Mr. Kareem-uddin, Ch. Kuvar Hussain and Kallu with their orchard's name as "4 Takhta", "Deputy Sahib Wala Bagh", "Nehar Ke Pul Wala Bagh" and "Kallu Wala Bagh", respectively. In their times mangoes were cultivated using traditional practices i.e. Tukhmil Ungrafted (through seeds). In about 1874 in village Rataul some grafted plants of Bambaï variety were planted, which were collected from "DAULA" Village in Baghpat District. They were brought in by an Engineer of Eastern Yamuna canal project, Mr. Barden from Maharashtra. In about 1880, Mr. Abdur Razzaq son of Sheikh Inayat Ali established 1.5 ha of mango orchards in Rataul village. Mr. Hakimuddin, a government official collected various varieties of mangoes. Thus village Rataul becomes famous for its mangoes.

One of the famous varieties of mangoes i.e. "Rataul" was developed in Rataul village by Sheikh Mohammed Afaq Faridi (Grandson of Mr. Abdur Razzaq). Mr. Afaq was so passionate with mangoes that he had already tasted a good number of varieties of mangoes and he was able to tell the variety just by chewing the leaves of mango tree, by tasting it or even by smelling it. Sheikh Mohammad Afaq Faridi devoted his life for the development of mangoes. He established a nursery SHOHRA-E-AFAQ NURSURY on 7th May 1928 and got it registered on 4th November 1935 in which he had 461 varieties of mangoes and he grew many orchards of different varieties; this was his first attempt towards having all kind of varieties of mangoes.

The discovery of 'Rataul' mango was an interesting event. Mr. Afaq Faridi was passing by a farm, where he saw a baby plant of mango of about 5 years, and as per his habit he crushed and smelled the leaf. To his amusement there was a smell of carrot flower. He plucked a ripe mango off the tree and tasted it, the flavor was amazing and also the

smell of the mango was very pleasing. Mr. Faridi then prepared the grafts on the tree himself. In 1917, 4 plants of grafted "Rataul" mango variety were planted and thereafter 30-40 plants were planted in the next year by him.

In 1935, Nawab of Chhatari, Mr. Ahmed Sayeed Khan, first governor of U.P., representing India showcased Rataul in an exhibition held at London where it (Rataul variety) received First prize and appreciation. Shohra -e- Afaq nursery sent its varieties to all over India and became famous.

Rataul mango has become the choice of not only the common man but from time to time various dignitaries appreciated its taste. To name a few Pandit Jawahar Lal Nehru (First Prime minister of India), Mrs. Uma Kant Dixit, Lala Deshbandhu Gupta, Mr. Gyani Jail Singh, Mrs Indira Gandhi, General Zia-ul- haq, Mr. Atal Bihaari Vajpayee, Ch. Charan Singh, Mr. Chandra Shekhar, Mrs Shiela Dixit.

Rataul mango has always been appreciated by the media as well. It has always made its presence felt in the media every year during the mango season because of its sweetness and peculiar aroma. Many stories have covered by electronic and print media from time to time. A special documentary was filmed on Mr. Afaq Faridi by Film Division. Many books and other articles have been published so as to describe the speciality of Rataul mango and the contribution of Mr. Faridi in developing different varieties of mangoes especially Rataul.

Catalogue (1941-42), SHORA-I-AFAQ Nursery defines Rataul mango as "*the best mango known as yet, very sweet, most extremely delicious, scent extraordinarily sweet, yields in plenty, precious and nice mango, best money maker. Our specialty excellence confirmed in England*".

l) Method of Production:

Topography and soil parameters

Village Rataul is situated in district Baghpat, Uttar Pradesh which forms a part of Yamuna-Hindon doab in Yamuna sub-basin of Indo-Gangetic plain. It occupies part of inter fluvial belt of Ganga-Yamuna in the extreme western part of the state.

The deposits in Baghpat region are flood plain deposits which belong to quaternary period. Baghpat has dense fluvial sediments deposited by the river Yamuna and Hindon beneath the surface with right bank tributaries. The sediments are admixture of clay and sand of different grades.

Soil

The Indo-Gangetic Plains are formed by the periodic deposition of silt brought by rivers

abound in alluvial soil. The alluvial tracks of Ganga-Yamuna interfluvium have very fertile soil. The study area is characterized broadly by two types of soils, loam and sandy loam (Survey of India, 2003). The area is also marked by the development of ravines and bad land topography at places, particularly along the banks of rivers Yamuna, Hindon and Krishna. The ravine soils are generally rich in aluminum (Al) and iron (Fe) contents.

Bed rock has not been encountered in deep exploratory wells drilled to depth of 650 m. Geologically, the area is categorized by a heavy pile of about 1000 m of quaternary alluvium. This area is one of the most fertile lands due to presence of deep continuous water bearing strata. This allows the roots of plants to absorb water easily and also makes it easy to bore wells for irrigation of fields and orchards.

Climate and rainfall

The area experiences moderate to tropical climate. The average annual rainfall is 585.3 mm. The climate is sub-humid and it is characterized by dryness of the air with an intensely hot summer and a cold winter. About 90% of rainfall takes place from June to September. During monsoon surplus water is available for deep percolation to ground water.

Common agricultural practices followed for cultivation of Rataul mango.

- The following seasons are regarded as most suitable for plantation:
 - From the 20th February, to 10th April.
 - From the commencement of the monsoon to 31st August.
- The distance between the plants must be 36 ft.
- Sandy or clay soil is suitable for plantation. Following types of land/soil are unfit for Rataul mango Plantation: Gravelly land or “shore-area” or which contains nitrogenous substance in excess, where the rain-water and water goes from the old polluted area, or which draws rain-water.
- The young plants must remain covered from 1st December to 20th February for protection from frost, and before this date they must not be uncovered, however favorable or altered as the season may seem. The plants should not remain covered after 1st March till the time the plants are grown into full trees. Their stem near the ground must be covered with straw.
- The mango-plants are not to be provided with Organic Manure.
- The necessary ditches. (One yard deep) for plantation must be dug and filled up with the upper soil of the field. Then the field must be fully watered so that the level of the soil of the ditches may sink down to its proper limits. The trees must be planted after the soil of the ditches is dried up.
- After every watering, the ground must be scratched and turned over with the mattock (*khurpa*). If, after turning over the ground is lightly hit upon with the mattock,.

- During the rainy season, when white ants become a nuisance to the plant, care must be taken for the removal from the stem.
- Care must be taken that during the hot season, water should not remain for long in the thawla, as watering getting hot dries up the plant.
- During the summer season, the plant should not be watered at noon.
- Excess of water is injurious. The mango-tree does not require water in great excess. So long as the soil is moist, watering is not necessary.
- In the orchard, heavy feeder (sugarcane, sorghum, chari etc) or which grows taller than the mango grafts should not be grown. Crops requiring excessive water should be avoided. Peas, moong and small rooted legumes are the finest crop for the mango-orchard; it helps in the growth of the plants and improves fertility.
- Banana trees must not be planted near Rataul mango Orchards/ trees as it is injurious.
- Orange, lemon or peach etc, should not be planted in the mango-orchard as their roots reach out towards the mango-plant and hinder in their growth
- Shady/ big trees like Jamun, Sheesham etc which block wind or sun must not be planted around Mango trees.
- Weeds in the orchard should be well managed.

Season

Rataul mango starts flowering during early March and fruits matures during early to mid-July.

Plant protection

Like other mango varieties Rataul mango also suffers a colossal loss due to number of insect-pest and diseases. Most of the common mango pests attack Rataul mango also. It is majorly attacked by pests like mango hopper, mealy bug, shoot gall psylla, and fruits fly etc.

Grading

Grading is mainly based on the size, colour and maturity of the fruits. While grading, smaller fruits are separated from the larger ones in order to maintain quality standards. Immature, overripe, damaged and diseased fruits are discarded in the process of grading.

Packing

Wooden or cardboard (CFB) boxes, rectangular in shape having capacity to accommodate 5 to 8 kg of fruits are used for packaging and transportation of mango fruits. The most commonly used containers are ventilated cardboard boxes cartons. Size of the box varies to accommodate 5 to 6 kg.

Marketing and Production

Owing to its unique flavor and fragrance, Rataul mango is most sought after variety during the mango season. Currently marketing is done only through word of mouth and

Rataul mango price ranges from Rs. 50/- per kg to Rs.100 /- kg on an average.

J) Uniqueness:

Rataul mango is medium sized fruit with pleasant aroma and excellent taste i.e. very sweet and extremely delicious. Rataul is medium season variety and the colour of the ripe fruit is greenish yellow. The ventral shoulder is rounded upward and there is no surface roughness due to lenticels. Skin is moderately thin and greenish yellow in colour, medium flesh firmness, fiber is scanty near the skin. The pulp colour is attractive medium orange with a TSS ranging from 18-22 °Brix. The shelf life of Rataul mango is around 6-8 days at room temperature and it is suitable for table purpose and it also possesses excellent export quality.

Rataul mangoes are of medium size averaging around 140-220 gram. The fruits are ovate-oblong with rounded base and no beak. Its extraordinary pleasant aroma differentiates the variety from any other.

Fruit Drop: Hot air in the month of May adversely affect the Rataul mango which causes fruit drops but overall fruit drop is considered to be less in comparison of other varieties grown in Rataul village i.e. Dashehari, Langra, Chausa etc.

K) Inspection Body:

Inspection body will be constituted with the following members

1.	Director, Central Institute for Subtropical Horticulture, Rehmankhera, P.O. Kakori, Lucknow, Uttar Pradesh 226 101	Chairperson
2.	Secretary, Rataul Mango Producers Association, Village & Post office Rataul, Distt. Baghpat Uttar Pradesh 250 101	Member
3.	District Horticulture Officer, Baghpat	Member
4.	Plant Protection Officer, Baghpat	Member
5.	Traditional Farmers from Rataul Area	Member
6.	Farmer from Shekpuri village	Member
7.	Farmer from Mubarakpur village	Member
8.	Farmer from Tigri village	Member
9.	Farmer from Vinaypur village	Member

L) Others:

About the Applicant:

Rataul Mango Producers' Association is majorly working towards following interests:

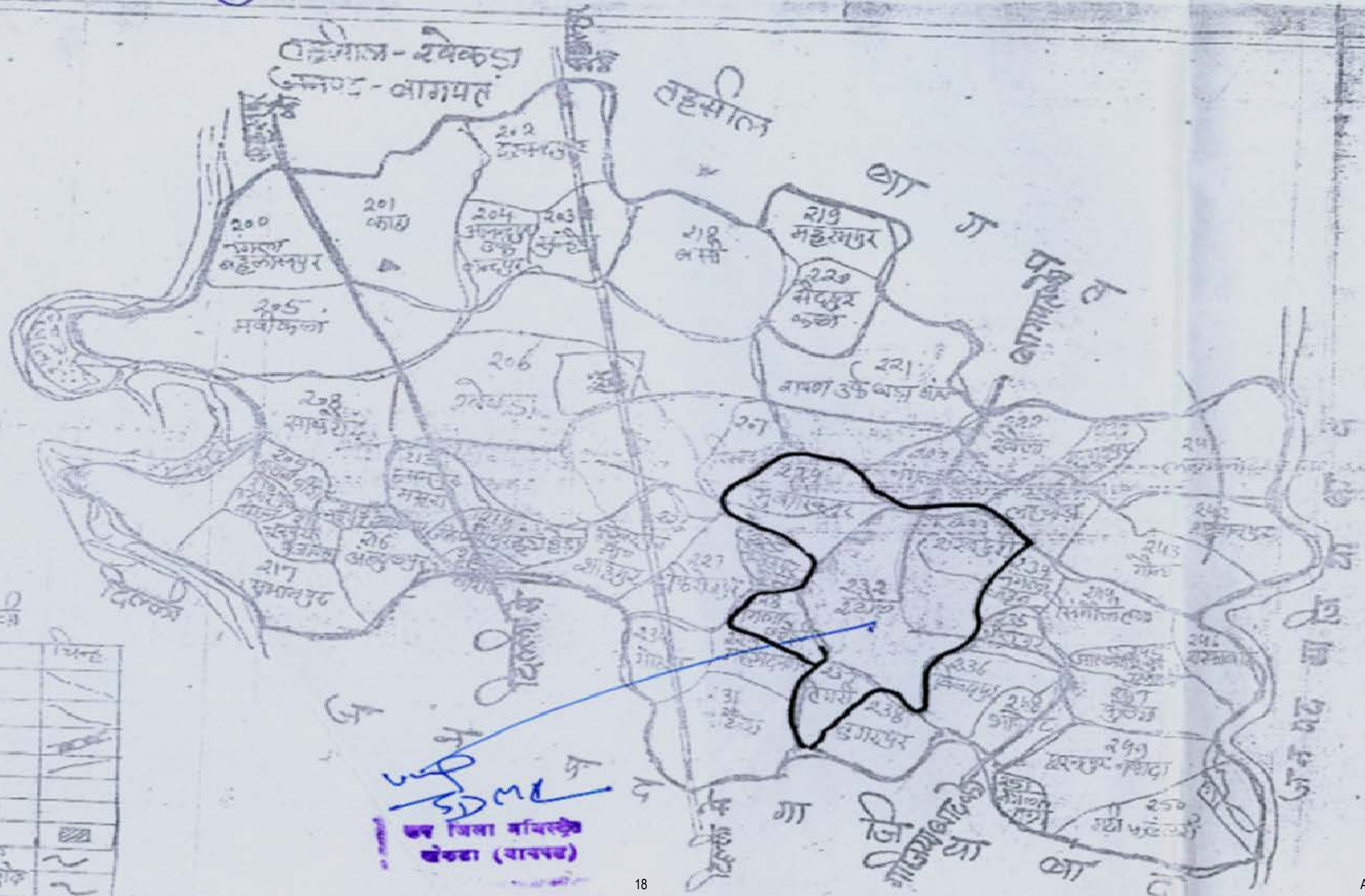
- To conserve the Rataul mango variety of Geographical Area.
- To increase the production, productivity & area.
- To increase the income of Rataul mango producers and to fetch better price.
- To produce quality Rataul mango for export and domestic market.

Rataul, buried amid the wheat and sugar cane meadows of northern Uttar Pradesh, about 35 kilometers northeast of New Delhi, is home to about 18,000 people. Everywhere in the village, alongside alleyways, rich meadows are mango trees, with their twigs dripping with the weighty green pendants of maturing fruit and you can find old males here and there with small hammers style wooden crates that will embrace Rataul's yield, the celebrated Rataul mango, valued by mango enthusiasts throughout the nation.

"India's gift to the world, this delicious summer fruit is much more than something good to eat" states an article by Mohan Sivanand on the mangoes of Rataul in the Reader's Digest (April, 1997). The mango king (a title given by the then Prime Minister Pt. Jawaharlal Nehru), Sheikh Mohammad Afaq Faridi, fetched Rataul its recognition by developing the Rataul mango, a tiny pendant of tender yellow-orange fruit that came, native knowledge has it, from that first mango tree in the village.

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सर्वेक्षण सूची

नाम	चिन्ह
जिल्हा कार्यालय	/
तहसील कार्यालय	/
राज्य कार्यालय	/
राज्य	/
तहसील	/
जिल्हा कार्यालय	/
गुगल पंचायत	■
जिल्हा कार्यालय	/
राज्य कार्यालय	/

जिल्हा कार्यालय
 देवकडा (वांगवट)