भाखेल भारतीय शुष्क क्षेत्रीय फल समन्वित अनुसंधान परियोजना





श्री गंगानगर राजमार्ग, बीछवाल, बीकानेर-334006 (राज.)

ALL INDIA COORDINATED RESEARCH PROJECT ON ARID ZONE FRUITS **ICAR- CENTRAL INSTITUTE FOR ARID HORTICULTURE**

Sri Ganganagar Highway, Beechwal-BIKANER-334006

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F. No. PC/AZF/Variety/2022/

Dated- 13.05.2022

OFFICE ORDER

Sub: Identification of variety of Aonla as "Narendra Aonla-25" at AICRP on AZF level-regarding.

Dr. Bhanu Pratap, Horticulturist and Principal Investigator of Scheme, ANDUAT, Kumarganj, Ayodhya (UP) has submitted the proposal with data/characteristics of promising aonla selection (Selection-25) for identification as a variety. After detailed discussions during 25th Annual Meeting of Research Workers Group of AICRP on AZF held virtual at ICAR-Central Institute for Arid Horticulture, Bikaner during 26-28 February, 2021, the house has recommended the following variety of aonla (Emblica Officinalis Gaertn.) identified as "Narendra Aonla-25". Further, the planting material of the identified variety of "Narendra Aonla-25" may be produced in sufficient quantity for distribution among the farmers' of the region and should be tested in multi-locations and also put in transfer technology chain under intimation to PC Cell.

| Sr. No. | Crop/ Name of variety under which tested | Project title | Name of Variety as Identified. | Scientists associated for the development of the variety |
|------------|--|--|--------------------------------|---|
| 1. | Aonla (Emblica officinalis Gaertn.) | Improvement of Arid Zone Fruit Crops | | 1. Dr. Bhanu Pratap 2. Dr. Hemant Kumar Singh 3. Dr. A. L. Yadav 4. Dr. H. K. Singh 5. Sri N. L. Sharma |
| | | | | |

Description of variety:

Plants of this variety has upright and spreading growth habit. Trunk is grey in colour. Branches are turreted with sparse foliage. Small linier elliptical leaves with obtuse apex. Branchlet green to light pink in colour. Inflorescence Long, pinkish green in colour (g) Fruit let elliptical long and dark brown in colour. Flattened fruits moderate in size and creamy yellow colour. Skin smooth, semi translucent. Short and thin stalk. Six paired segment, difficult to separate. Moderate stone which is oval in shape. Fruits are having good keeping quality and suitable for preserve making. Flowering Starts from last week of February. Early maturity. Minutely symptoms appear with fruit necrosis. Luxuriant growth of plant under rainfed semi-arid environment.

Trait specific:

Fruits are flattened round, moderate in size. Average of 5 years (2016-2020) yield/plant is 34.73 kg, fruit weight 52.76g, fruit size 4.18 cm x 4.41 cm, total number of seed 06, segments-6, TSS pulp 11.500 Brix, acidity (0.89%) and vitamin C-545.93 mg / 100 g pulp.

Director & PC (AZF)

Copy to:

1. All concerned Scientists 2. ADG, Hort.Sci.-II, ICAR, New Delhi 3. DOR, ANDUAT, Ayodhya 4. DOE, ANDUAT, Ayodhya 5. Incharge AICRP on AZF, ANDUAT, Ayodhya.

अखिल भारतीय शुष्क क्षेत्रीय फल समन्वित अनुसंधान परियोजना





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F. No. PC/AZF/Variety/2022/

Dated- 13.05.2022

OFFICE ORDER

Sub: Identification of variety of Aonla as "Narendra Aonla-26" at AICRP on AZF level-regarding.

Dr. Bhanu Pratap, Horticulturist and Principal Investigator of Scheme, ANDUAT, Kumarganj, Ayodhya (UP) has submitted the proposal with data/characteristics of promising aonla selection (Selection-25) for identification as a variety. After detailed discussions during 25th Annual Meeting of Research Workers Group of AICRP on AZF held virtual at ICAR-Central Institute for Arid Horticulture, Bikaner during 26-28 February, 2021, the house has recommended the following variety of aonla (Emblica Officinalis Gaertn.) identified as "Narendra Aonla-26". Further, the planting material of the identified variety of "Narendra Aonla-25" may be produced in sufficient quantity for distribution among the farmers' of the region and should be tested in multi-locations and also put in transfer technology chain under intimation to PC Cell.

| Sr. | Crop/ Name of variety | Project title | Name of Variety as | Scientists associated for the development |
|-----|-----------------------|-----------------|---------------------|---|
| No. | under which tested | | Identified. | of the variety |
| 1. | Aonla (Emblica | Improvement of | | 1. Dr. Bhanu Pratap |
| | officinalis Gaertn.) | Arid Zone Fruit | 'Narendra Aonla-26' | 2. Dr. Hemant Kumar Singh |
| | | Crops | | 3. Dr. A. L. Yadav |
| | | | | 4. Dr. H. K. Singh |
| | | | | 5. Sri N. L. Sharma |
| | | | | |

Description of variety:

Plants of this variety are tall and having spreading growth habit. Trunk is grey in colour. Branches are angled with dense foliage. Leaves are large to medium oblong with obtuse apex. Branchlet are brownish light pink surface in colour. Pinkish green small inflorescence. Fruit let are elliptical long, dark brown in colour and growth start in mid in season. Fruits are flattened in shape and greenish yellow in colour. Fruit skin thin, smooth, semi translucent, whitish green to straw in colour. Stalk short and thick. Six paired segment can easily separate. Flesh whitish greenish yellow nearly fibrous and soft. Stone moderate, triangular in shape. Fruits are having good keeping quality and ideally suitable for pickle and other products. Flowering starts from last week of February. Mid season maturity. Necrosis disease symptoms appear minutely. Recommended under rainfed conditions of arid and semi-arid regions of India.

Trait specific:

Fruit shape are flattened round, moderate in size. Average of 5 years (2016-2020) yield/plant is 55.56 kg, fruit weight 45.68g, fruit size 3.93 cm x 4.15 cm, total number of seed 06, segments-6, TSS pulp 10.850 Brix, acidity (1.10%) and vitamin-C 483.68 mg / 100 g pulp.

Copy to:

1. All concerned Scientists 2. ADG, Hort.Sci.-II, ICAR, New Delhi 3. DOR, ANDUAT, Ayodhya 4. DOE, ANDUAT, Ayodhya 5. Incharge AICRP on AZF, ANDUAT, Ayodhya.

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F. No. PC/AZF/Variety/2022/

Dated- 13.05.2022

OFFICE ORDER

Sub: Identification of variety of Bael as "Narendra Bael-10" at AICRP on AZF level-regarding.

Dr. Bhanu Pratap, Horticulturist and Principal Investigator of Scheme, ANDUAT, Kumarganj, Ayodhya (UP) has submitted the proposal with data/characteristics of promising bael selection (Selection-ND/AH-10) for identification as a variety. After detailed discussions during 25th Annual Meeting of Research Workers Group of AICRP on AZF held virtual at ICAR-Central Institute for Arid Horticulture, Bikaner during 26-28 February, 2021, the house has recommended the following variety of bael (Aegle Marmelos Correa.) identified as "Narendra Bael-10". Further, the planting material of the identified variety of "Narendra Bael-10" may be produced in sufficient quantity for distribution among the farmers' of the region and should be tested in multi-locations and also put in transfer technology chain under intimation to PC Cell.

| S. | Crop/ Name of variety | Project title | Name of Variety as | Scientists associated for the development |
|-----|-----------------------|-----------------|--------------------|---|
| No. | under which tested | | Identified. | of the variety |
| 1. | Bael (Aegle | Improvement of | | 1. Dr. Bhanu Pratap |
| | Marmelos Correa.) | Arid Zone Fruit | 'Narendra Bael-10' | 2. Dr. Hemant Kumar Singh |
| | marmetos conca.) | Crops | | 3. Dr. A. L. Yadav |
| | | | | 4. Dr. H. K. Singh |
| | | | | 5. Dr. R. S. Singh |
| | | | | 6. Sri N. L. Sharma |

Description of variety:

Plant has vigorous in growth pattern with semi-spreading growth habit, compact canopy, very less spines. Fruit ripens in 280-300 days from fruit set. Comparatively, it is the earliest in maturity (first fortnight of March), precocious bearer and highly suitable for growing under dry land conditions. In this variety no major diseases and pests were noticed under field conditions. Fruit shape is elliptical. Luxuriant growth of plant under rainfed semi-arid environment. Attractive light yellow colour pulp is highly suitable for powder and RTS owing to attractive pulp colour and fibre content.

Trait specific:

Average of 5 years data (2016-2020) yield/plant is 104.34 kg, fruit weight 1.87 kg, fruit size 26.51 cm x 25.02 cm, shell thickness 2.49 mm, total number of seed 80-110, locules in cross section 11-12, TSS pulp 30.890 B, acidity (0.40%) and vitamin C 21.81 mg/100g pulp, pulp colour-pale yellow, pulp taste-sweet were recorded. Average yield under normal conditions 84.15-112.20 kg/plant 212.85 Q/hectare.

Director & PC (AZF)

Copy to:

1. All concerned Scientists 2. ADG, Hort.Sci.-II, ICAR, New Delhi 3. DOR, ANDUAT, Ayodhya 4. DOE, ANDUAT, Ayodhya 5. Incharge AICRP on AZF, ANDUAT, Ayodhya.

अखिल भारतीय शुष्क क्षेत्रीय फल समन्वित अनुसंधान परियोजना





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F. No. PC/AZF/Variety/2022/

Dated- 13.05.2022

OFFICE ORDER

Sub: Identification of variety of Bael as "Narendra Bael-8" at AICRP on AZF level-regarding.

Dr. Hemant Kumar Singh, Principal Investigator of Scheme, ANDUAT, Kumargani, Ayodhya (UP) has submitted the proposal with data/characteristics of promising bael selection (Selection-ND/AH-8) for identification as a variety. After detailed discussions during 26th Annual Meeting of Research Workers Group of AICRP on AZF held at Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya (UP) during 28-30 April, 2022, the house has recommended the following variety of bael (Aegle Marmelos Correa.) identified as "Narendra Bael-8". Further, the planting material of the identified variety of "Narendra Bael-8" may be produced in sufficient quantity for distribution among the farmers' of the region and should be tested in multi-locations and also put in transfer technology chain under intimation to PC Cell.

| S. | Crop/ Name of variety | Project title | Name of Variety as | Scientists associated for the development |
|-----|-----------------------|-----------------|--------------------|---|
| No. | under which tested | | Identified. | of the variety |
| 1. | Bael (Aegle | Improvement of | | 1. Dr. Hemant Kumar Singh |
| | Marmelos Correa.) | Arid Zone Fruit | Narendra Bael-8' | 2. Dr. Bhanu Pratap |
| | mannetos conca.) | Crops | | 3. Dr. A. L. Yadav |
| | | | | 4. Dr. H. K. Singh |
| | | | | 5. Dr. Sanjay Pathak |
| | | | | 6. Sri N. L. Sharma |

Description of variety:

Plants of this variety are vigorous in growth pattern with semi-spreading growth habit, compact canopy, very less spines. Bark colour is whitish gray and bark splitting is rectangular. Fruit shape is obviate. Fruit ripens in 290-310 days from fruit set. It is a late maturity (first fortnight of April) variety with precocious bearer and highly suitable for growing under dry land conditions. No major diseases and pests were noticed under field conditions. Luxuriant growth of plant under rainfed semi-arid environment. Highly suitable for powder /juice/ murabba/candy and RTS owing to attractive pulp colour and very less fibre content.

Trait specific:

Average of 6 years data (2016- 2021) yield (kg)/plant is 108.89kg, fruit weight 1.23 kg, fruit size 22.33 cm x 21.45 cm, shell thickness 2.21 mm, total number of seed 109-130, locules arrangement-scattered, seed cavity 11-13, mucilage very less, TSS pulp 38.770B, acidity (0.36%) and vitamin C 19.91 mg/100g pulp, very less fibre content, pulp colour-pale yellow, pulp taste-sweet were recorded. Average yield under normal conditions 108.89 kg/plant 169.86 q/hectare.

Director & PC (AZF)

Copy to:

1. All concerned Scientists 2. ADG, Hort. Sci.-II, ICAR, New Delhi 3. DOR, ANDUAT, Ayodhya 4. DOE, ANDUAT, Ayodhya 5. Incharge AICRP on AZF, ANDUAT, Ayodhya.

अखिल भारतीय शुष्क क्षेत्रीय फल समन्वित अनुसंधान परियोजना भनुप-केन्द्रीय शुष्क बागवानी संस्थान



श्री गंगानगर राजमार्ग, बीछवाल, बीकानेर-334006 (राज.)



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F. No. PC/AZF/Variety/2022/

Dated- 13.05.2022

OFFICE ORDER

Sub: Identification of variety of Bael as "Narendra Bael-11" at AICRP on AZF level-regarding.

Dr. Hemant Kumar Singh, Principal Investigator of Scheme, ANDUAT, Kumargani, Ayodhya (UP) has submitted the proposal with data/characteristics of promising bael selection (Selection-ND/AH-17) for identification as a variety. After detailed discussions during 26th Annual Meeting of Research Workers Group of AICRP on AZF held at Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya (UP) during 28-30 April, 2022, the house has recommended the following variety of bael (Aegle Marmelos Correa.) identified as "Narendra Bael-11". Further, the planting material of the identified variety of "Narendra Bael-11" may be produced in sufficient quantity for distribution among the farmers' of the region and should be tested in multi-locations and also put in transfer technology chain under intimation to PC Cell.

| S. | Crop/ Name of variety | Project title | Name of Variety as | Scientists associated for the development |
|-----|-----------------------|-----------------|--------------------|---|
| No. | under which tested | | Identified. | of the variety |
| 1. | Bael (Aegle | Improvement of | | 1. Dr. Hemant Kumar Singh |
| | Marmelos Correa.) | Arid Zone Fruit | 'Narendra Bael-11' | 2. Dr. Bhanu Pratap |
| | marmetos conca.) | Crops | | 3. Dr. A. L. Yadav |
| | | | | 4. Dr. H. K. Singh |
| | | | | 5. Dr. Sanjay Pathak |
| | | | | 6. Sri N. L. Sharma |

Description of variety:

Plants are vigorous in growth pattern, semi-spreading, upright growth habit, compact canopy, very less spines. Bark colour is white grayish and bark splitting is rectangular. Fruit shape is elliptical. Fruit ripens in 280-290 days from fruit set. It is a early maturity (first fortnight of March) variety with precocious bearer and highly suitable for growing under dry land conditions. No major diseases and pests were noticed under field conditions. It is suitable to grow under rainfed hot semi-arid ecosystem. Drought tolerant, luxuriant growth and higher fruit yield under less precipitation and high temperature. Attractive light yellow colour of pulp of complete ripened fruit. It is highly suitable for powder /juice/ murabba/candy and RTS owing to attractive pulp colour and very less fibre content. Moderately frost resistant.

Trait specific:

Average of 6 years (2016- 2021) yield/plant is 99.60 kg, fruit weight 1.87 kg, fruit size 26.00 cm x 24.68 cm, shell thickness 2.62 mm, locules in scattered section 12-14, Pulp colour whitish yellow, Mucilage very less, Number of seeds 90-103, TSS pulp 33.98 (⁰Brix), acidity (0.36%) and vitamin C 35.15 mg / 100 g pulp were recorded. Luxuriant growth of plant under rainfed semi-arid environment of Plains of India. Average yield under normal conditions 99.60kg/plant 155.37q/ha.

Director & PC (AZF)

Copy to:

1. All concerned Scientists 2. ADG, Hort. Sci.-II, ICAR, New Delhi 3. DOR, ANDUAT, Ayodhya 4. DOE, ANDUAT, Ayodhya 5. Incharge AICRP on AZF, ANDUAT, Ayodhya.