सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA

भारतीय पौधा किस्म जरनल

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पौधा किस्म और कृषक अधिकार संरक्षण प्राधिकरण
एनएएससी काम्प्लैक्स, डीपीएस मार्ग, निकट टोडापुर गांव, नई दिल्ली–110012

PROTECTION OF PLANT VARIETIES & FARMERS' RIGHTS AUTHORITY
NASC COMPLEX, DPS MARG, Opp. Todapur Village, New Delhi-110012

भारत सरकार

GOVERNMENT OF INDIA

भारतीय पौधा किस्म जरनल, खण्ड १२, अंक १२

जून ०६, २०१९/ज्येष्ठ-शुक्ल-०४, शक् १९४१

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June 06, 2019/Jyeshth-Shukla-04, Saka 1941

पौधा किस्म और कृषक अधिकार संरक्षण प्राधिकरण

एनएएससी परिसर, डीपीएस मार्ग, निकट टोडापुर गांव, नई दिल्ली-110012

PROTECTION OF PLANT VARIETIES & FARMERS' RIGHTS AUTHORITY
NASC Complex, DPS Marg, Opp. Todapur Village, New Delhi – 110 012.

‘भारतीय पौधा किस्म जरनल’ ‘ पौधा किस्म और कृषक अधिकार संरक्षण प्राधिकरण का आधिकारिक जरनल है। पीपीवी और एफआर अधिनियम, 2001 तथा पीपीवी और एफआर नियमावली 2003 के नियम 2 (जी) के अंतर्गत अध्यक्ष, पीपीवी और एफआरए, एनएएससी परिसर(द्वितीय तल), डीपीएस मार्ग, निकट टोडापुर गांव, नई दिल्ली-110012 की ओर से प्राधिकरण के रजिस्ट्रार द्वारा प्रकाशित किया जा रहा है।

Plant Variety Journal of India is the Official Journal of the Protection of Plant Varieties and Farmers' Rights Authority (PPV & FRA) published by the Registrar on behalf of the Chairperson, PPV & FRA, S-2 A Block, NASC Complex, DPS Marg, Opp. Todapur Village, New Delhi-110012 under the PPV&FR Act, 2001 and Rule 2 (g) of the PPV&FR Rules, 2003.

TK NAGARA THNA

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Date: 2019.06.06 17:06:55 +05'30'

सूची/Index

6. मामले से संबंधित व्यक्तियों से आपत्तियां, यदि कोई हों तो, आमंत्रित करने के लिए 42 कृषक किस्मों के पासपोर्ट आंकड़े यहां प्रकाशित हैं।

Passport Data of 42 varieties published for calling objection(s), if any, from persons in the matter.

क्र.सं. S. no.	नाम/Denomination	पावती सं. Acknowledgement No.	फसल Crop	श्रेणी Category	पृष्ठ सं. Page no.
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सार्वजनिक सूचना

पीपीवी एवं एफआर प्राधिकरण ने 13 नवम्बर, 2018 को सम्पन्न अपनी 30वीं बैठक में पीपीवी एवं एफआर नियम, 2003 के नियम 29 (9) के अंतर्गत विभिन्न पीवीजे में प्रकाशित निम्नलिखित फसल प्रजातियों के डीयूएस परीक्षण दिशानिर्देशों का अनुमोदन किया।

क्र.सं.	**फसल प्रजाति का नाम**	**पौधा किस्म पत्रिका में प्रकाशित**
1.	मोरिंगा, ***मोरिंगा ओलीफेरा***	मई, 2018

मोरिंगा डीयूएस परीक्षण दिशा निर्देशों (पौधा किस्म पत्रिका खण्ड 12, अंक 5 में प्रकाशित) में पृष्ठ सं 33 में भाग 2 के पैरा 1 के अंतिम पंक्ति में लिखे गए शब्द ''न्यूमतम के रूप में आवेदक को मोरिंगा के 20 पौधों को जमा करना होगा'' के स्थान पर ''न्यूमतम के रूप में आवेदक को मोरिंगा के 30 पौधों को जमा करना होगा'' पढ़ा जाए।

हस्ताक्षरित
(आर. सी. अग्रवाल)
महापंजीकार

PUBLIC NOTICE

The PPV&FR Authority in its 30th meeting held on 13th November, 2018, has approved under Rule 29(9) of PPV&FR Rules, 2003, the DUS Test Guidelines for following Crop Species published in various PVJs namely: -

Sl. No.	**Name of Crop Species**	**Published in PVJ**
1.	Moringa, ***Moringa oleifers***	May, 2018

With the following corrigendum in the Moringa DUS test guidelines (published in PVJ Vol.12 No.5) to the effect that in last line of para 1 of part II at page 33 for the words "As a minimum the applicant should submit 20 plants of moringa" the words "As a minimum the applicant should submit 30 plants of moringa" shall be substituted.

Sd/-
Dr. R.C. Agrawal
Registrar-General

सार्वजनिक सूचना

पौधा किस्म और कृषक अधिकार संरक्षण नियम 22 (2) के अंतर्गत पौधा किस्म और कृषक अधिकार संरक्षण प्राधिकरण ने 13 नवम्बर, 2018 को सम्पन्न अपनी 30वीं बैठक में निम्नलिखित पांच फसल प्रजातियों की विद्यमान किस्मों के पंजीकरण हेतु समय सीमा का निर्धारण एवं निर्दिष्ट निम्नलिखित रूप से किया है।

क्र.सं.	**फसल प्रजाति का नाम**	**पौधा किस्म पत्रिका में प्रकाशित**	**विद्यमान अधिसूचित किस्म और विद्यमान किस्में जिनका सामान्य ज्ञान है, उनके पंजीकरण के लिए समय-सीमा।**	**कृषक किस्मों के पंजीकरण के लिए समय-सीमा।**
1	मोरिंगा, मोरिंगा ओलीफेरा	पौधा किस्म पत्रिका खण्ड 12, अंक 5	भारतीय पौधा किस्म जर्नल में प्राधिकरण के अनुमोदन प्रकाशित होने की तिथि से 6 वर्ष	भारतीय पौधा किस्म जर्नल में प्राधिकरण के अनुमोदन प्रकाशित होने की तिथि से 10 वर्ष

हस्ताक्षरित
(आर. सी. अग्रवाल)
महापंजीकार

PUBLIC NOTICE

Under Rule 22(2) of PPV&FR Rules, 2003, the PPV&FR Authority in its 30th meeting held on 13th November, 2018, has determined and fixed the time limit for registration of extant varieties of the following five crop species as follows: -

Sl. no.	**Name of Crop Species**	**Published in PVJ**	**Time-limit for registration of Extant Notified Variety and Extant Variety about which there is Common Knowledge**	**Time-limit for registration of Farmers Variety**
1	Moringa (***Moringa oleifers)***	PVJ Vol.12 No.5	6 years from the date of publication of approval of Authority in Plant Variety Journal of India	10 years from the date of publication of approval of Authority in Plant Variety Journal of India.

Sd/-
Dr. R.C. Agrawal
Registrar-General

सार्वजनिक सूचना

पीपीवी एवं एफआर नियम, 2003 के नियम 29 (1) ए के अनुसार पीपीवी एवं एफआर प्राधिकरण ने 13 नवम्बर, 2018 को सम्पन्न अपनी 30वीं बैठक में निम्नलिखित फसल प्रजातियों की डीयूएस परीक्षण शुल्क का अनुमोदन किया है।

क्र. सं.	**फसल प्रजाति का नाम**	**पौधा किस्म पत्रिका में प्रकाशित**	**डीयूएस टेस्ट फीस**	**ऑन-साइट डीयूएस टेस्ट फीस**
1	मोरिंगा, *मोरिंगा ओलीफेरा*	पौधा किस्म पत्रिका खण्ड 12, अंक 5	रू 20,000	रू 30,000

हस्ताक्षरित
(आर. सी. अग्रवाल)
महापंजीकार

PUBLIC NOTICE

In accordance with Rule 29(1)(a) of PPV&FR Rules, 2003, the PPV&FR Authority in its 30th meeting held on 13th November, 2018 has approved the DUS test fees of the following crop species which are here under: -

Sl. No.	**Name of Crop Species**	**Published in PVJ**	**DUS test fees**	**On-site DUS test fees**
1.	Moringa (*Moringa oleifers)*	PVJ Vol.12 No.5	Rs. 20,000	Rs. 30,000

Sd/-
Dr. R.C. Agrawal
Registrar-General

<u>सार्वजनिक सूचना</u>

(पीपीवी और एफआर अधिनियम, 2001 की धारा 19 के तहत पीपीवी और एफआर नियम, 2003 के नियम 29 (Characteristic 8) के साथ पढ़ें)

विषय : पीपीवी और एफआर प्राधिकरण की 30वीं बैठक में तारांकन चिन्ह (*) की चूक से डीयूएस परीक्षण दिशा-निर्देशों में संशोधन का निर्णय - सभी फसल प्रजातियों के डीयूएस परीक्षण दिशा-निर्देशों में सभी लक्षण आवश्यक लक्षण हैं।

पीपीवी और एफआर प्राधिकरण ने 13 नवंबर, 2018 को सम्पन्न अपनी 30वीं बैठक में निम्नलिखित विषय पर निर्णय लिया है :

"पीपीवी और एफआर अधिनियम, 2001 की धारा 15 (3) (बी) में यह प्रावधान है कि किसी भी किस्म में अन्य किस्मों जिनकी मौजूदगी सामान्य ज्ञान का विषय हो, से अलग कम से कम एक आवश्यक गुण में विशिष्टता होनी चाहिए। तदानुसार पंजीकरण हेतु योग्यता प्राप्त करने के लिए किस्म में कम से कम एक आवश्यक गुण में विशिष्टिता होनी चाहिए। संबंधित फसल प्रजातियों के डीयूएस परीक्षण दिशा-निर्देशों में आवश्यक गुणों को एस्ट्रिक (*) के माध्यम से उल्लेख किया गया है। चूंकि डीयूएस परीक्षण दिशा-निर्देशों में उल्लेख किए गए सभी गुण पैतृक हैं और वे मुख्य लक्षणों, निष्पादन तथा पौधा किस्म के महत्व में योगदान देते हैं और आवश्यक गुणों की परिभाषा को परिपूर्ण करते हैं। तदानुसार, डीयूएस परीक्षण दिशा-निर्देशों में उल्लेखित गुणों को आवश्यक गुणों के रूप में विचार किया जाना आवश्यक है।"

अत: आगे से सभी फसल प्रजातियों के लिए अधिसूचित डीयूएस परीक्षण दिशा-निर्देशों में उल्लेखित एस्ट्रिक (*) चिह्न को छोड़ दिया जाए और तदानुसार सभी फसल प्रजातियों के डीयूएस परीक्षण दिशा-निर्देशों में उल्लेखित सभी गुणों को पीपीवी और एफआर अधिनियम, 2001 की धारा 2 (एच) के अनुसार आवश्यक गुण माना जाए।

ह/-
(आर. सी. अग्रवाल)
महापंजीकार

PUBLIC NOTICE

(under Section 19 of PPV&FR Act, 2001 read with Rule 29(Characteristic 8) of PPV&FR Rules, 2003)

Sub: Decision in 30th Meeting of PPV&FR Authority to Revise DUS test guidelines by omission of asterisk (*)-All characters in DUS test guidelines of all crop species are essential characters-

The PPV&FR Authority in its 30th Meeting held on 13th November, 2018 has decided as follows: -

"Section 15(3)(b) of PPV&FR Act, 2001 provides that a variety must be distinct by at least one essential character from any other variety whose existence is a matter of common knowledge in any country at the time of filing of application. Accordingly, to become eligible for registration the thumb rule is that a variety must be distinct by at least one essential character. The essential characters have been specified in the DUS test guidelines of respective crop species by way of an asterisk namely (*). Since all, characters specified in DUS test guidelines are heritable and contribute to the principal features, performance and value of the plant variety and satisfy the definition of essential characteristics. Accordingly, all the characters in the DUS test guidelines must be considered as essential characters."

Henceforth, the asterisk (*) mentioned in the DUS test guidelines notified for all crop species shall be omitted and accordingly all characters mentioned in the DUS test guidelines of all crop species shall be considered as essential characters under Section 2(h) of PPV&FR Act, 2001.

Sd/-
Dr. R.C. Agrawal
Registrar-General

सार्वजनिक सूचना

विषयः पीपीवी और एफआर अधिनियम, 2001 की धारा 21 की उप-धारा (2) और (3) तथा पीपीवी और एफआर नियमावली, 2003 के अंतर्गत नियम 30 और 31 के अंतर्गत दिया गया विज्ञापन ।

आवेदक द्वारा प्रस्तुत किए गए प्रत्येक किस्म के पासपोर्ट आंकड़े, मामले से सम्बद्ध व्यक्तियों की आपत्तियां आमंत्रित करने के लिए यहां विज्ञापित किए जा रहे हैं।

पीपीवी एवं एफआर प्राधिकरण के रजिस्ट्रार से उस स्थान अथवा स्थानों के बाबत जहां पर कि पौधा किस्म के नमूने का निरीक्षण संभव हो, लिखित जानकारी ले सकते हैं।

आवेदन (आवेदनों) के विज्ञापन के तीन माह के अंदर कोई भी व्यक्ति पादप किस्म के पंजीकरण के आवेदन का विरोध करते हुए लिखित आपत्ति/नोटिस दे सकता है (पीपीवी एवं एफआर नियमावली, 2003 की प्रथम अनुसूची के फार्म PV-3 में)। पंजीकरण के विरुद्ध आपत्तियां, यदि कोई हों तो, तीन प्रतियों में रजिस्ट्रार, पौधा किस्म एवं कृषक अधिकार संरक्षण प्राधिकरण, एनएएससी काम्प्लैक्स, डीपीएस मार्ग, नई दिल्ली-110012 को प्रस्तुत की जा सकती हैं जिसके साथ शुल्क के रूप में 10,000/-रु. (दस हजार रुपए मात्र) डिमांड ड्राफ्ट के रूप में ''पौधा किस्म एवं कृषक अधिकार संरक्षण प्राधिकरण (पीपीवी एवं एफआर आथारिटी)'' के नाम से नई दिल्ली में देय होनी चाहिए।

PUBLIC NOTICE

Subject: Advertisement is given under sub-section (2) and (3) of Section 21 of the Protection of Plant Varieties and Farmers' Rights Act, 2001 and Rules 30 and 31 of PPV&FR Rules, 2003.

The passport data of each variety furnished by the applicant are herewith advertised as specified for calling objections from any person.

The place or places where the specimen of the variety may be inspected can be obtained in writing from the Registrar of the PPV&FR Authority.

Any person may, within three months from the date of advertisement of the application(s) give notice of opposition in writing to the Registration of variety (as per Form PV-3 of the First Schedule of PPV&FR Rules, 2003). Oppositions, if any, to the Registration must be submitted, in triplicate, to the Registrar, PPV&FRA, NASC Complex, DPS Marg, New Delhi -110 012 accompanied with the fee of Rs.10,000/- (Rupees Ten Thousand Only) by way of Demand Draft drawn in favour of "PPV&FR Authority" payable at New Delhi.

FORM O-1
(See Rule 30)
Government of India, Plant Varieties Registry

1. Application No. | N4 | SB10 | 15 | 1428 | filed on 21.07.2015 by **Indian Council of Agricultural Research Director & Project Coordinator, ICAR-Indian Institute of Millets Research, Rajendra Nagar, Hyderabad, Telangana-500030** for an extant plant variety notified under the Seed Act, 1966 of crop **Sorghum** (*Sorghum bicolor* L.) having denomination **CSV 30F**, has been accepted and given registration number ---------NA ----------on ---------- NA ----------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : CSV 30F
Applicant : ICAR, New Delhi
Address of the applicant : Director & Project Coordinator, ICAR-Indian Institute of Millets Research, Rajendra Nagar, Hyderabad, Telangana-500030
Nationality of applicant : Indian
Application details :
a. Number : N4 | SB10 | 15 | 1428
b. Date of receipt : 21.07.2015

Crop (taxonomical lineage) : Sorghum (*Sorghum bicolor* L.)
Denomination : CSV 30F
Type of variety : New
Classification of variety : Typical (Pure line)
Name of parental material : NSS223 x NARI 111
Name of reference varieties : CSV 21 F, HC 308
Notification details : Number: 1919 (E), Dated: 30.07.2014

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Kharif or *rabi* adaptation	*Kharif*
Plant: Time of panicle emergence (50% of the plants with complete panicle emergence) (Characteristic 4)	Late
Plant: Total height at maturity) (Characteristic 18)	Long
Panicle: Shape (Characteristic 27)	Symmetrical
Caryopsis: Colour after threshing (Characteristic 33)	Yellow white

B. Distinct characteristics of candidate variety:

CSV 30F: It has distinguishing characters like greyed purple anthocyanin colouration of coleoptile, anthocyanin colouration of stigma present, greyed red glume colour, medium panicle length, symmetric panicle shape, partly threshable, low grain weight, lustrous grain

C. Distinct characteristics of reference varieties:

CSV 21 F: It has distinguishing characters like yellow colouration in flag leaf present, greyed orange glume colour, very low grain weight, non lustrous grain

HC 308: It has distinguishing characters like anthocyanin colouration of stigma absent, greyed orange glume colour

D. Date of commercialization of the variety	Not Commercialized

E. Agronomic and commercial attributes:

S. no.	Agronomic attributes	Details
1.	Days to physiological maturity (average)	115-118
2.	Seed rate per ha	10 kg/ha
3.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	100:50:0 kg/ha NPK
	Other fertilizers (per ha)	-
4.	Spacing (cm) requirement to attain potential yield	
	Row to row	45 cm
	Plant to plant	15 cm
5.	Soil type requirement to attain the potential yield	Medium to deep black
6.	Plant protection measures to attain the potential yield	-
7.	Sowing window requirement to attain potential yield (zone-wise)	15th September to 1st week of October
8.	Number of irrigations required to attain potential yield	4
9.	The best growing season to attain the potential yield (zone-wise)	(Zone-I & Zone-II)
10.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	-
11.	Intercultural operations (including training, pruning & nipping)	Thinning 15-20 DAS, 3 hoeing at 3, 4 & 8 weeks after sowing
12.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Zone-wise yield potential (average) per ha (q/ha) (if applicable)	Zone-I = 18.8 q/ha Zone-II = 10.5 q/ha
2.	Seed yield/ha (average)	16.7 q/ha

2. Application No. | E4 | SB18 | 16 | 1757 | filed on 27.10.2016 by **Mahatma Phule Krishi Vidyapeeth, Rahuri, All India Co-ordinated Sorghum Improvement Project, MPKV, Rahuri-413722, Maharashtra** for an extant plant variety notified under the Seed Act, 1966 of

crop **Sorghum** (*Sorghum bicolor* L.) having denomination **Phule Madhur (RSSGV 46),** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : Phule Madhur (RSSGV 46)
Applicant : Mahatma Phule Krishi Vidyapeeth, Rahuri
Address of the applicant : Dr. S.R.Gadakh, Senior Sorghum Breeder, All India Co-ordinated Sorghum Improvement Project, MPKV, Rahuri-413722
Nationality of Applicant : Indian
Application details :
a. Number :

E4	SB18	16	1757

b. Date of receipt : 27.10.2016

Crop (taxonomical lineage) : Sorghum (*Sorghum bicolor* L.)
Denomination : Phule Madhur (RSSGV 46)
Type of variety : Extant
Classification of variety : Others (Special purpose for hurda)
Name of parental material : RSSGV 6 x Gulbhendi
Name of reference variety : Phule Uttara
Notification details : Number: 2238 (E), Dated: 29.06.2016

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.***
Kharif or *rabi* adaptation	*Rabi*
Plant: Time of panicle emergence (50% of the plants with complete panicle emergence) (Characteristic 4)	Medium
Plant: Total height at maturity) (Characteristic 18)	Long
Panicle: Shape (Characteristic 27)	Broader in lower part
Caryopsis: Colour after threshing (Characteristic 33)	White

B. Distinct characteristics of candidate variety:
Phule Madhur (RSSGV 46): It has distinguishing characters like leaf midrib colour white, short anther length, semi compact panicle density at maturity, glume length short, elleptic grain shape, panicle shape is broader in lower part, medium grain weight, circular grain shape, non-lustrous grain

C. Distinct characteristics of reference variety:
Phule Uttara: It has distinguishing characters like leaf midrib colour yellow green, medium anther length, semi loose panicle density at maturity, medium grain weight, lustrous grain

D. Date of commercialization of the variety	07.10.2016

E. Agronomic and commercial attributes		
S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	77 days
3.	Days to physiological maturity (average)	121 days
4.	Seed rate per ha	10kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	
	Inorganic (per ha)	80:40:40 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	45 cm
	Plant to plant	15 cm
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	15th September- 15th October
10.	Number of irrigations required to attain potential yield	4
11.	The best growing season to attain the potential yield (zone-wise)	Rabi
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	-
13.	Intercultural operations (including training, pruning & nipping)	Thinning 15-20 DAS
14.	Any other relevant information specific to the variety/Hybrid	For hurda purpose
	Commercial attributes	
1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	-
2.	Seed yield/ha (average)	Seed yield = 18-20 q/ha Fodder yield = 60-65 q/ha Hurda yield = 35-40 q/ha

3. Application No. | E10 | TA58 | 18 | 702 | filed on 31.10.2018 by **University of Agricultural Sciences, Director of Research, UAS, Dharwad-580005, Karnataka** for an extant plant variety notified under the Seed Act, 1966 of crop **Bread Wheat** (*Triticum aestivum* L.) having denomination **UAS 334,** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : UAS 334
Applicant : University of Agricultural Sciences (UAS), Dharwad
Address of the applicant : Director of Research, UAS, Dharwad-580005
Nationality of applicant : Indian
Application details :
a. Number :

E10	TA58	18	702

b. Date of receipt : 31.10.2018

Crop (taxonomical lineage) : Bread Wheat (*Triticum aestivum* L.)
Denomination : UAS 334
Type of variety : Extant
Classification of variety : Typical variety
Name of parental material : SITE/M0/NAC/TH.AC//3*/PVN/3/MIRLO x BUC
Name of reference varieties : GV322, UAS 304
Notification details : Number: 1379 (E), Dated: 27.03.2018

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Flag leaf: Anthocynin coloration of auricle (Characteristic 4)	Absent
Plant length (Characteristic 14)	86 cm
Awn or scurs: Presence (Characteristic 18)	Present
Outer glume: Pubescence (Characteristic 23)	Absent
Ear: Colour (Characteristic 24)	White
Season type (Characteristic 37)	Spring

B. Distinct characteristics of candidate variety:
UAS 334: It has distinguishing characters like semi-erect plant growth habit, pale green foliage colour, medium ear waxiness, weak waxiness of culm neck, parallel ear shape, medium peduncle length, short brush hair length.

C**. Distinct characteristics of reference varieties:**
GV322: It has distinguishing characters like weak ear waxiness, medium waxiness of culm neck, tapering ear shape, long peduncle length.
UAS 304: It has distinguishing characters like erect plant growth habit, dark green foliage colour, medium waxiness of culm neck, tapering ear shape, long peduncle length, short brush hair length

D. Date of commercialization of the variety	2016-2017

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	62 days
3.	Days to physiological maturity (average)	107 days
4.	Seed rate per ha	150 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-

	Inorganic (per ha)	100:60:40 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	20 cm
	Plant to plant	5 cm
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	1st -15th November
10.	Number of irrigations required to attain potential yield	-
11.	The best growing season to attain the potential yield (zone-wise)	Rabi
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Zone 3 & zone 8 of Karnataka
13.	Intercultural operations (including training, pruning& nipping)	-
14.	Any other relevant information specific to the variety/hybrid	33.3% protein content(high)
	Commercial attributes	
1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	Zone III = 49.8 q/ha Zone VIII = 48.3 q/ha
2.	Seed yield/ha (average)	49.1q/ha

4. Application No. | E10 | TA58 | 18 | 701 | filed on 31.10.2018 by **University of Agricultural Sciences, Director of Research, UAS, Dharwad-580005, Karnataka** for an extant plant variety notified under the Seed Act, 1966 of crop **Bread Wheat** (*Triticum aestivum* L.) having denomination **UAS 375,** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : UAS 375
Applicant : University of Agricultural Sciences (UAS), Dharwad
Address of the applicant : Director of Research, UAS, Dharwad-580005
Nationality of applicant : Indian
Application details :
a. Number : | E10 | TA58 | 18 | 701 |
b. Date of receipt : 31.10.2018

Crop (taxonomical lineage) : Bread Wheat (*Triticum aestivum* L.)
Denomination : UAS 375
Type of variety : Extant

Classification of variety : Typical variety
Name of parental material : UAS 320/GW322 x LOK 62
Name of reference variety : NIAW-1415
Notification details : Number: 1379 (E), Dated: 27.03.2018

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Flag leaf: Anthocynin coloration of auricle (Characteristic 4)	Absent
Time of ear emergence (Characteristic 7)	54 days
Awn or scurs: Presence (Characteristic 18)	Present
Outer glume: Pubescence (Characteristic 23)	Absent
Ear: Colour (Characteristic 24)	White
Season type (Characteristic 37)	Spring

B**. Distinct characteristics of candidate variety:**
UAS 375: It has distinguishing characters like semi-erect plant growth habit, dark green foliage colour, medium ear waxiness, medium waxiness of culm neck, parallel ear shape, medium ear density, medium peduncle length, elleptical grain shape.

C. Distinct characteristics of reference variety:
NIAW-1415: It has distinguishing characters like semi-erect plant flag leaf attitude, medium waxiness leaf sheath, lax ear density, awn attitude spreading , long peduncle length, oblong grain shape, short brush hair length.

D. Date of commercialization of the variety	2016-2017

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	54
3.	Days to physiological maturity (average)	103 days
4.	Seed rate per ha	100kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	80:30:20 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cms) requirement to attain potential yield	
	Row to row	20 cm
	Plant to plant	5 cm
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	Rainfed
10.	Number of irrigations required to attain potential yield	-
11.	The best growing season to attain the potential yield (zone-wise)	Rabi

12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Peninsular zone
13.	Intercultural operations (including training, pruning & nipping)	-
14.	Any other relevant information specific to the variety/hybrid	13.8% protein content (high)
	Commercial attributes	
1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	-
2.	Seed yield/ha (average)	21.4 q/ha

5. Application No. | E1 | TD2 | 18 | 692 | filed on 14.09.2018 by **Indian Council of Agricultural Research, Director, ICAR-IARI, New Delhi 110012** for an extant plant variety notified under the Seed Act, 1966 of crop **Durum Wheat** (*Triticum durum* L.) having denomination **HD 4728 (Pusa Malwi)**, has been accepted and given registration number --------- NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : HD 4728 (Pusa Malwi)
Applicant : ICAR-IARI, New Delhi
Address of the applicant : Director, ICAR-IARI, New Delhi 110012
Nationality of applicant : Indian
Application details :
a. Number : | E1 | TD2 | 18 | 692 |
b. Date of receipt : 14.09.2018

Crop (taxonomical lineage) : Durum Wheat (*Triticum durum* L.)
Denomination : HD 4728 (Pusa Malwi)
Type of variety : Extant
Name of parental material : ALTAR84/STINT//SLVER45/3/SOMAT3.1/ 4/GREEN14/YAV/AUK
Name of reference varieties : HI8498, MPO1215
Classification of variety : Typical variety
Notification details : Number: 2238(E), Dated: 29.06.2016

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Coleoptile colouration (Characteristic 1)	Absent
Flag leaf: Anthocynin coloration of auricle (Characteristic 4)	Absent
Time of ear emergence (Characteristic 7)	Early
Plant length (Characteristic 15)	Medium

Awn colour (Characteristic 21)	White
Outer glume: Pubescence (Characteristic 23)	Absent
Ear: Colour (Characteristic 24)	White
Season type (Characteristic 39)	Spring
Grain colouration with phenol (Characteristic 32)	Negative

B. Distinct characteristics of candidate variety:

HD 4728 (Pusa Malwi): It has distinguishing characters like coleoptile anthocyanin colouration absent, green foliage colour, medium flag leaf waxiness of sheath, medium ear waxiness, medium peducnle waxiness, very dense ear density, straight awn attitude, medium glume shoulder width, medium glume beak length, elleptical grain shape, medium brush hair length.

C. Distinct characteristics of reference varieties:

HI8498: It has distinguishing characters like coleoptile anthocyanin colouration present, very strong flag leaf waxiness of sheath, very strong ear waxiness, very strong peducnle waxiness, medium awn attitude, short glume beak length, oblong grain shape.

MPO1215: It has distinguishing characters like coleoptile anthocyanin colouration present, dark green foliage colour, strong flag leaf waxiness of sheath, strong ear waxiness, strong peducnle waxiness, medium awn attitude, narrow glume shoulder width, short glume beak length, oblong grain shape, short brush hair length.

D. Date of commercialization of the variety	05.11.2016

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	73 days
3.	Days to physiological maturity (average)	120 days
4.	Seed rate per ha	131.5 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	
	Inorganic (per ha)	120:60:40 kg/ha NPK
	Other fertilizers (per ha)	
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	20-22.5 cm
	Plant to plant	-
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	10^{th} – 25^{th} November
10.	Number of irrigations required to attain potential yield	4 to 5
11.	The best growing season to attain the potential yield (zone-wise)	Spring
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Central zone
13.	Intercultural operations (including training, pruning & nipping)	-
14.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	

1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	Central zone: 54.7 q/ha
2.	Seed yield/ha (average)	54.18 q/ha

6. Application No. | E1 | HV17 | 18 | 536 | filed on 08.06.2018 by **Indian Council of Agricultural Research, Director, ICAR-Indian Institute of Wheat and Barley Research, Karnal-132001, Haryana** for an extant plant variety notified under the Seed Act, 1966 of crop **Barley** (Hordeum vulgare L.) having denomination **DWRB 137 (Central Barley DWRB 137**), has been accepted and given registration number ---------NA ----------on ---------- NA ----------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : DWRB 137 (Central Barley DWRB 137)
Applicant : ICAR, New Delhi
Address of the applicant : Director, ICAR-IIWBR, Karnal-132001
Nationality of applicant : Indian
Application details :
a. Number : | E1 | HV17 | 18 | 536 |
b. Date of receipt : 08.06.2018

Crop (taxonomical lineage) : Barley (*Hordeum vulgare* L.)
Denomination : DWRB 137 (Central Barley DWRB 137)
Type of variety : Extant
Classification of variety : Typical (pure line)
Name of parental material : DWR28 x DWRUB64
Name of reference varieties : HUB113, BH959
Notification details : Number: 1379 (E), Dated: 27.03.2018

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Stem: Basal pigmentation (Characteristic 2)	Present
Auricle: Anthocyanin pigmentation (Characteristic 3)	Absent
Spike emergence (Characteristic 7)	Medium
Spike type (row number) (Characteristic 8)	6 rows
Plant height (Characteristic 20)	Medium
Spike density (Characteristic 25)	Dense
Grain hullness (Characteristic 26)	Hulled
Grain: colour (Characteristic 27)	Yellow

B. Distinct characteristics of candidate variety:

DWRB 137 (Central Barley DWRB 137): It has distinguishing characters like erect growth habit, stem basal pigmentation present, flag leaf attitude erect, flag leaf waxiness of leaf present, medium spike emergence, spike type 6 row, medium plant height, normal awns, spike density dense, yellow grain colour, oblong grain shape, large grain size, grain crease width narrow

C. Distinct characteristics of reference varieties:

HUB113: It has distinguishing characters like stem basal pigmentation absent, elongated grain shape

BH959: It has distinguishing characters like spike density intermediate, elongated grain shape.

D. Date of commercialization of the variety	01.11.2017

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	-
3.	Days to physiological maturity (average)	115 days
4.	Seed rate per ha	100 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	60:30:20 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	18 cm
	Plant to plant	2-3 cm
7.	Soil requirements to attain the potential yield	Loam to light
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	10^{th} -25^{th} November
10.	Number of irrigations required to attain potential yield	3
11.	The best growing season to attain the potential yield (zone-wise)	Irrigated condition
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	North Eastern Plain zone & Central zone
13.	Intercultural operations (including training, pruning& nipping)	-
14.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	40.21q/ha
2.	Seed yield/ha (average)	42.49 q/ha

7. Application No. | E1 | AC1 | 18 | 695 | filed on 25.10.2018 by **Indian Council of Agricultural Research, Director, ICAR- Directorate of Onion and Garlic Research, Rajguru Nagar, Pune, Maharashtra-410505** for an extant plant variety notified under the Seed Act, 1966 of crop **Onion** (*Alium cepa* L.) having denomination **Bhima Safed**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : Bhima Safed
Applicant : Indian Council of Agricultural Research, New Delhi
Address of the applicant : Director, ICAR - Directorate of Onion and Garlic Research, Rajguru Nagar, Pune, Maharashtra-410505
Nationality of applicant : Indian
Application details :
a. Number :

E1	AC1	18	695

b. Date of receipt : 25.10.2018

Crop (taxonomical lineage) : Onion (*Alium cepa* L.)
Denomination : Bhima Safed
Type of variety : Extant
Classification of variety : Typical (Open pollinated variety)
Name of parental material : Segregating white bulbs from red onion variety B-780
Name of Reference Varieties : Bhima Shubhra, Bhima Shwetha, Akola Saphed
Notification details : Number: 2277 (E), Dated: 17.08.2015

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc*.)**
Bulb: Diameter (Characteristic 5)	Medium
Bulb: General shape (in longitudinal section) (Characteristic 23)	Globe
Bulb: Basic colour of dry skin (Characteristic 24)	White
Bulb: Degree of splitting into bulblets (with dry skin around each bulblet) (Characteristic 32)	Absent

B. Distinct characteristics of candidate variety:
Bhima Safed: It has distinguishing characters like few number of leaves per pseudo-stem, medium bulb time of maturity, semi erect foliage attitude, medium pseudo-stem diameter, globe general shape of bulb, thin bulb thickness of bulb, single bulb predominant number of access, degree of splitting into bulblets is absent.

C. Distinct characteristics of reference varieties:
Bhima Shubhra: It has distinguishing characters like few number of leaves per pseudo-stem, medium bulb time of maturity, semi erect foliage attitude, small pseudo-stem diameter, globe general shape of bulb, thin thickness of bulb, single bulb predominant number of access, degree of splitting into bulblets is absent
Bhima Shwetha: It has distinguishing characters like medium number of leaves per pseudo-stem, late bulb time of maturity, semi erect foliage attitude, medium pseudo-stem diameter, flat globe general shape of bulb, medium bulb thickness of bulb, single bulb predominant number of access, degree of splitting into bulblets is absent

Akola Saphed: It has distinguishing characters like few number of leaves per pseudo-stem, late bulb time of maturity, erect foliage attitude, small pseudo-stem diameter, flat globe general shape of bulb, thin bulb thickness of bulb, multiple bulb predominant number of access, degree of splitting into bulblets is medium		
D. Date of commercialization of the variety	05.07.2017	
E. Agronomic and commercial attributes		
S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis(average)	-
3.	Days to maturity (average)	-
4.	Planting material/seed material requirement	Seed rate: 8-10 kg/ha
5.	Fertilizer requirement to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	100:50:50 kg/ha NPK, Sulphur 50 kg/ha
	Other fertilizers (per ha or per plant)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	-
	Plant to plant	-
7.	Soil requirements to attain the potential yield	fertile loamy soil
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	-
10.	Number of irrigations required to attain potential yield (zone-wise)	-
11.	The best growing season to attain the potential yield	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	IV, V and IV zones
13.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Yield potential (average) per ha (q/ha)	-
2.	Yield (q/ha)	197.19 q/ha

8. Application No. | E2 | VR6 | 16 | 801 | filed on 27.06.2016 by **Punjab Agricultural University, Ludhiana-141004, Punjab** for an extant plant variety notified under the Seed Act, 1966 of crop **Green gram** (*Vigna radiata* L.) having denomination **SML 668**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : SML 668
Applicant : Punjab Agricultural University
Address of the applicant : PAU, Ludhiana-141004
Nationality of applicant : Indian
Application details :
a. Number :

E2	VR6	16	801

b. Date of receipt : 27.06.2016

Crop (taxonomical lineage) : Green gram (*Vigna radiate* L.)
Denomination : SML 668
Type of variety : Extant
Classification of variety : Typical variety
Name of parental material : NM 94
Notification details : Number: 283 (E), Dated: 12.03.2003

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Hypocotyl: Anthocyanin colouration (Characteristic 1)	Present
Time of flowering (Characteristic 2)	Early
Seed: Lusture (Characteristic 22)	Medium Shiny
Seed: Size (Characteristic 24)	Bold

B. Distinct characteristics of candidate variety:
SML 668:It has distinguishing characters like long matured pod length, above canopy pod position, drooping pod attachment, thick pod wall, determinate plant habit, short plant height.

C. Distinct characteristics of reference variety: --

D. Date of commercialization of the variety 12.03.2003

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	34
3.	Days to physiological maturity (average)	60
4.	Seed rate per ha	40 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (kg/ha)	-
	Inorganic (kg/ha)	-
	Other fertilizers (kg/ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	-
	Plant to plant	-
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-

9.	Sowing window requirement to attain potential yield (zone-wise)	25th March - 25th April
10.	Number of irrigations required to attain potential yield	-
11.	The best growing season to attain the potential yield (zone-wise)	Summer
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	-
13.	Intercultural operations	-
14.	Any other relevant information specific to the variety/hybrid	Resistant to MYMV
	Commercial attributes	
1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	12.04 q/ha
2.	Seed yield/ha(average)	11.33 q/ha

9. Application No. | E2 | CC86 | 17 | 1451 | filed on 25.04.2017 by **University of Agricultural Sciences**, **All India Coordinated Research Project on Pigeon Pea, UAS, Bangalore-560065, Karnataka** for an extant plant variety notified under the Seed Act, 1966 of crop **Pigeon Pea** (*Cajanus cajan* L.) having denomination **BRG 5**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : BRG 5
Applicant : University of Agricultural Sciences, Bangalore
Address of the applicant : Dr. M. Byre Gowda, Principal Scientist (Plant Breeding), AICRP on Pigeon Pea, UAS, Bangalore-560065
Nationality of applicant : Indian
Application details :
a. Number : | E2 | CC86 | 17 | 1451 |
b. Date of receipt : 25.04.2017

Crop (taxonomical lineage) : Pigeon Pea (*Cajanus cajan* L.)
Denomination : BRG 5
Type of variety : Extant
Classification of variety : Typical variety
Name of parental material : BRG 3 x ICPL 99046
Name of reference varieties : BRG 2
Notification details : Number: 3540 (E), Dated: 22.11.2016

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**

Time of flowering (Characteristic 3)	Medium
Plant: Growth habit (Characteristic 4)	Indeterminate
Stem: Colour (Characteristic 5)	Green
Pod: Waxiness (Characteristic 12)	Absent
Seed: Colour (Characteristic 18)	Brown

B. Distinct characteristics of candidate variety:

BRG 5:It has distinguishing characters like red flower colour, brown seed colour, resistance to fusarium wilt disease.

C. Distinct characteristics of reference variety:

BRG 2: It has distinguishing characters like yellow flower colour, green pod colour, medium large pod length, cream seed colour, susceptable to fusarium wilt disease

D. Date of commercialization of the variety	25.05.2016

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	Indeterminate
2.	Days to flowering/anthesis (average)	100-105
3.	Days to physiological maturity (average)	160-170
4.	Seed rate per ha	15 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (kg/ha)	-
	Inorganic (kg/ha)	25:50:25 kg/ha NPK
	Other fertilizers (kg/ha)	
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	90 cm
	Plant to plant	20 cm
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	May to July
10.	Number of irrigations required to attain potential yield	-
11.	The best growing season to attain the potential yield (zone-wise)	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Zone – IV
13.	Intercultural operations	-
14.	Any other relevant information specific to the variety/hybrid	Resistant to wilt disease
	Commercial Attributes	
1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	-
2.	Seed yield (q/ha) (average)	18-20 q/ha

10. Application No. | E15 | OS118 | 18 | 629 | filed on 18.07.2018 by **UAHS, Director of Research, University of Agricultural and Horticultural Sciences, Shimoga, Karnataka** for an extant plant variety notified under the Seed Act, 1966 of crop **Rice** (*Oryza sativa* L.) having denomination **Tunga**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : Tunga
Applicant : UAHS, Shimoga
Address of the applicant : Director of Research, University of Agricultural and Horticultural Sciences, Shimoga
Nationality of applicant : Indian
Application details :
a. Number : | E15 | OS118 | 18 | 629 |
b. Date of receipt : 18.07.2018

Crop (taxonomical lineage) : Rice (*Oryza sativa* L.)
Denomination : Tunga
Type of variety : Extant
Classification of variety : Typical (Pure line)
Name of parental material : Pankaj x Mahsuri
Name of reference varieties : KHP2, IET 7191
Notification details : Number: 1572 (E), Dated: 20.09.2016

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc*.)**
Basal leaf: Sheath colour (Characteristic 2)	Green
Time of heading (50% of plants with panicles) (Characteristic 20)	Late
Stem: Length (excluding panicle; excluding floating rice) (Characteristic 29)	Medium
Decorticated grain: Length (Characteristic 54)	-
Decorticated grain: Shape (in lateral view) (Characteristic 56)	-
Decorticated grain: Colour (Characteristic 57)	White
Endosperm: Content of amylose (Characteristic 59)	-
Decorticated grain: Aroma (Characteristic 62)	Absent

B. Distinct characteristics of candidate variety:

Tunga: It has distinguishing characters like short stem length, panicle has no secondary branching, no colour of sterile lamella, very high grain weight, long slender decorticated grain shape.

C. Distinct characteristics of reference varieties:

KHP2: It has distinguishing characters like short stem length, panicle has secondary branching, partly coloured sterile lamella, very high grain weight, long bold decorticated grain shape

IET 7191: It has distinguishing characters like very short stem length, secondary branching in panicle is absent, colour in sterile lamella is absent, high grain weight, medium bold decorticated grain shape

D. Date of commercialization of the variety	May, 2005

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	120-125
3.	Days to physiological maturity (average)	150-155
4.	Seed rate per ha	62.5 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	70:75:87.5 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	15 cm
	Plant to plant	10 cm
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	Zone 9 of Karnataka
10.	Number of irrigations required to attain potential yield	-
11.	The best growing season to attain the potential yield (zone-wise)	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	-
13.	Intercultural operations (including training, pruning& nipping)	-
14.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	-
2.	Seed yield q/ha (average)	50-52 q/ha
3.	Straw yield q/ha (average)	70-75 q/ha

11. Application No. | E14 | OS117 | 18 | 628 | filed on 18.07.2018 by **UAHS, Director of Research, University of Agricultural and Horticultural Sciences, Shimoga** for an extant plant variety notified under the Seed Act, 1966 of crop **Rice** (*Oryza sativa* L.) having denomination

KHP 9, has been accepted and given registration number ---------NA ----------on ----------NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : KHP 9
Applicant : UAHS, Shimoga-577225
Address of the applicant : Director of Research, University of Agricultural and Horticultural Sciences, Shimoga
Nationality of applicant : Indian
Application details :
a. Number : E14 | OS117 | 18 | 628
b. Date of receipt : 18.07.2018

Crop (taxonomical lineage) : Rice (*Oryza sativa* L.)
Denomination : KHP 9
Type of variety : Extant
Classification of variety : Typical
Name of parental material : Intan x IET 7191
Name of reference varieties : Intan, Hemavathi
Notification details : Number: 112 (E), Dated: 12.01.2016

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Basal leaf: Sheath colour (Characteristic 2)	Green
Time of heading (50% of plants with panicles) (Characteristic 20)	Very late
Stem: Length (excluding panicle; excluding floating rice) (Characteristic 29)	Medium
Decorticated grain: Length (Characteristic 54)	-
Decorticated grain: Shape (in lateral view) (Characteristic 56)	-
Decorticated grain: Colour (Characteristic 57)	White
Endosperm: Content of amylose (Characteristic 59)	-
Decorticated grain: Aroma (Characteristic 62)	Absent

B. Distinct characteristics of candidate variety:
KHP 9:It has distinguishing characters like white spikelet colour of stigma, medium stem length, erect attitude of flag leaf, secondary branching of panicle absent, well exerted panicle, very late time of maturity, straw colour of sterile lamella, medium grain weight, white colour of decorticated grain, decorticated grain aroma absent

C. Distinct characteristics of reference varieties:

Intan: It has distinguishing characters like purple spikelet colour of stigma, short stem length, erect attitude of flag leaf, well exerted panicle, late time of maturity, straw colour of sterile lamella, medium grain weight, white colour of decorticated grain, decorticated grain aroma absent

Hemavathi: It has distinguishing characters like white spikelet colour of stigma, medium stem length, erect attitude of flag leaf, secondary branching of panicle present, well exerted panicle, late time of maturity, straw colour of sterile lamella, medium grain weight, white colour of decorticated grain, decorticated grain aroma absent

D. Date of commercialization of the variety	May, 2005

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	130-135
3.	Days to physiological maturity (average)	165-170
4.	Seed rate per ha	62.5 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	75:75:90 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	15 cm
	Plant to pant	10 cm
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	1st week of June
10.	Number of irrigations required to attain potential yield	-
11.	The best growing season to attain the potential yield (zone-wise)	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	-
13.	Intercultural operations (including training, pruning & nipping)	-
14.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	-
1.	Zone -wise yield potential (average) per ha (q/ha) (if applicable)	-
2.	Seed yield (q/ha) (average)	50-52 q/ha
3.	Straw yield (q/ha) (average)	80-85 q/ha

12. Application No. | N1 | TA59 | 18 | 704 | filed on 22.11.2018 by **Indian Council of Agricultural Research, Director, ICAR, Indian Institute of Wheat & Barley, Karnal-132001** for a new plant variety notified under the Seed Act, 1966 of crop **Wheat** (*Triticum aestivum* L.) having denomination **DBW 168**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : DBW 168
Applicant : ICAR, New Delhi
Address of the applicant : Director, ICAR-Indian Institute of Wheat & Barley, Karnal-132001
Nationality of applicant : Indian
Application details :
a. Number :

N1	TA59	18	704

b. Date of receipt : 22.11.2018

Crop (taxonomical lineage) : Wheat (*Triticum aestivum* L.)
Denomination : DBW 168
Type of variety : New
Classification of variety : Typical (Variety)
Name of parental material : SUNSU X CSHBAI
Name of reference varieties : MACS6222, GW322
Notification details : Number: 1379 (E), Dated: 27.03.2018

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Flag leaf: Anthocynin coloration of auricle (Characteristic 4)	Absent
Time of ear emergence (Characteristic 7)	Medium
Plant length (Characteristic 14)	Medium
Awn or scurs: Presence (Characteristic 18)	Present
Outer glume: Pubescence (Characteristic 23)	Absent
Ear: Colour (Characteristic 24)	White
Season type (Characteristic 37)	Spring
Grain hardness (Characteristic 38)	Semi hard

B. Distinct characteristics of candidate variety:
DBW 168: It has distinguishing characters like semi erect plant growth habit, green foliage colour, flag leaf anthocyanin colouarion of auricle absent, flag leaf hair on auricle absent, medium flag leaf waxiness of sheath, medium ear density, outer glume pubescence absent, white ear colour, amber grain colour, oblong grain shape, medium grain width, medium brush hair length, large seed size

C. Distinct characteristics of reference varieties:
MACS6222: It has distinguishing characters like erect plant growth habit, dark green foliage colour, flag leaf hair on auricle medium, strong flag leaf waxiness of sheath, medium seed size
GW322: It has distinguishing characters like strong flag leaf waxiness of sheath, wide grain width, medium brush hair length, medium seed size

D. Date of commercialization of the variety	Not Commercialized	
E. Agronomic and commercial attributes		
S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	-
3.	Days to physiological maturity (average)	115
4.	Seed rate per ha	100 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	20:60:40 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cms) requirement to attain potential yield	
	Row to row	20 – 22.5 cm
	Plant to plant	-
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	5th November - 20th November
10.	Number of irrigations required to attain potential yield	4 - 5
11.	The best growing season to attain the potential yield (zone-wise)	Spring
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	-
13.	Intercultural operations (including training, pruning& nipping)	1-2 hand weeding at 4th & 8th week after sowing
14.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Zone -wise yield potential (average) per ha (q/ha) (if applicable)	-
2.	Seed yield/ha (average)	48.2 q/ha

13. Application No. | N1 | AC2 | 17 | 1796 | filed on 22.08.2017 by **Indian Council of Agricultural Research, Director, ICAR-Directorate of Onion and Garlic Research, Pune, Maharashtra** for a new plant variety notified under the Seed Act, 1966 of crop **Onion** (*Alium cepa* L.) having denomination **Bhima Light Red (DOGR-571-LR),** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : Bhima Light Red (DOGR-571-LR)

Applicant : ICAR, New Delhi
Address of the applicant : Director, ICAR-DOGR, Pune
Nationality of applicant : Indian
Application details :
a. Number : N1 | AC2 | 17 | 1796
b. Date of receipt : 22.08.2017

Crop (taxonomical lineage) : Onion (*Alium cepa* L.)
Denomination : Bhima Light Red (DOGR-571-LR)
Type of variety : New
Classification of variety : Others (OPV)
Name of parental material : Selection from accession 579 from APMC,
Name of reference varieties : Arka Nikethan, Bhima Kiran
Notification details : Number: 261 (E), Dated: 16.01.2018

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc*.)**
Bulb: Diameter (Characteristic 5)	Medium
Bulb: General shape (in longitudinal section) (Characteristic 23)	Globe
Bulb: Basic colour of dry skin (Characteristic 24)	Light Red
Bulb: Degree of splitting into bulblets (with dry skin around each bulblet) (Characteristic 32)	Absent

B. Distinct characteristics of candidate variety:
Bhima Light Red (DOGR-571-LR):It has distinguishing characters like foliage attitude erect, foliage waxiness absent, thin bulb thickness, strong bulb firmness, bulb colour of epidermis of fleshy scale is reddish, degree of bulb splitting into buldlets is absent.

C. Distinct characteristics of reference varieties:
Arka Nikethan: It has distinguishing characters like foliage attitude semi erect, foliage waxiness present, medium bulb thickness, medium bulb firmness, bulb colour of epidermis of fleshy scale is purplish, degree of bulb splitting into buldlets is medium.
Bhima Kiran: It has distinguishing characters like foliage waxiness present, bulb colour of epidermis of fleshy scale is purplish.

D. Date of commercialization of the variety	Not Commercialized

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis(average)	-
3.	Days to maturity (average)	110 - 120
4.	Planting material/Seed material requirement	8-10 kg/ha
5.	Fertilizer requirement to attain potential yield and time of application	
	Organic (per ha or per plant)	-
	Inorganic (per ha or per plant)	110:40:60:45 kg/ha NPKS
	Other fertilizers (per ha or per plant)	15 t/ha FYM

6.	Spacing (cm) requirement to attain potential yield	
	Row to row	15cm
	Plant to plant	10cm
7.	Soil requirements to attain the potential yield	Loamy soil
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	October
10.	Number of irrigations required to attain potential yield (zone-wise)	8-10 days warm climate 10-15 days cool climate (drip irrigation to avoid disease outbreak)
11.	The best growing season to attain the potential yield	Rabi
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Zone VI
13.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Yield potential (average) per ha (q/ha)	-
2.	Yield (average) (q/ha)	383.23 q/ha

14. Application No. | N1 | AC2 | 14 | 985 | filed on 25.04.2014 by **Indian Council of Agricultural Research, Director, ICAR-Directorate of Onion and Garlic Research, Pune, Maharashtra** for a new plant variety notified under the Seed Act, 1966 of crop **Onion** (*Alium cepa* L.) having denomination **Bhima Dark Red (NRCRO-3/RGO-53)**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : Bhima Dark Red (NRCRO-3/RGO-53)
Applicant : ICAR, New Delhi
Address of the applicant : Director, ICAR-DOGR, Pune 410505
Nationality of applicant : Indian
Application details :
a. Number : | N1 | AC2 | 14 | 985 |
b. Date of receipt : 25.04.2014

Crop (taxonomical lineage) : Onion (*Alium cepa* L.)
Denomination : Bhima Dark Red (NRCRO-3/RGO-53)
Type of variety : Extant
Classification of variety : Others (OPV)
Name of parental material : N 53
Name of reference varieties : Bhima Raj, L-28, Line 355

Notification details : Number: 2277 (E), Dated: 17.08.2015

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc*.)**
Bulb: Diameter (Characteristic 5)	Medium
Bulb: General shape (in longitudinal section) (Characteristic 23)	Flat Globe
Bulb: Basic colour of dry skin (Characteristic 24)	Dark red
Bulb: Degree of splitting into bulblets (with dry skin around each bulblet) (Characteristic 32)	Absent

B. Distinct characteristics of candidate variety:

Bhima Dark Red (NRCRO-3/RGO-53): It has distinguishing characters like time of maturity medium, foliage attitude semi erect, dark foliage intensity of green colour, thin bulb thickness of neck, dark red colour of dry skin, medium bulb firmness of flesh, purplish bulb colour of epidermis of fleshy skin, bulb degree of splitting into bulblets absent

C. Distinct characteristics of reference varieties:

Bhima Raj: It has distinguishing characters like erect foliage attitude, medium foliage intensity of green colour, medium bulb thickness of neck, strong bulb firmness of flesh

L-28 (NHRDF red): It has distinguishing characters like erect foliage attitude, strong bulb firmness of flesh, reddish bulb colour of epidermis of fleshy skin, bulb degree of splitting into bulblets medium

D. Date of commercialization of the variety	Not commercialized

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis(average)	-
3.	Days to maturity (average)	-
4.	Planting material/Seed material requirement	8-10 kg/ha
5.	Fertilizer requirement to attain potential yield and time of application	
	Organic (per ha or per plant)	-
	Inorganic (per ha or per plant)	100:50:50:50kg/ha NPKS
	Other fertilizers (per ha or per plant)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	15 cm
	Plant to plant	10 cm
7.	Soil requirements to attain the potential yield	Loamy soil
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	May to June
10.	Number of irrigations required to attain potential yield (zone-wise)	10-15 days as per soil type
11.	The best growing season to attain the potential yield	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Zone II, V & VI

13.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Yield potential (average) per ha (q/ha)	Maximum up to 460.30 q/ha with average yield 221.22 q/ha

15. Application No. E3 SB11 15 1429 filed on 21.07.2015 by **Indian Council of Agricultural Research, Director & Project Coordinator, ICAR-Indian Institute of Millets Research, Rajendra Nagar, Hyderabad, Telangana-500030** for an extant plant variety notified under the Seed Act, 1966 of crop **Sorghum (***Sorghum bicolor* L.) having denomination **CSV 32F**, has been accepted and given registration number ---------NA ----------on ---------- NA ----------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : CSV 32F
Applicant : ICAR, New Delhi
Address of the applicant : Director & Project Coordinator, ICAR-Indian Institute of Millets Research, Rajendra Nagar, Hyderabad, Telangana-500030
Nationality of applicant : Indian
Application details :
a. Number : E3 SB11 15 1429
b. Date of receipt : 21.07.2015

Crop (taxonomical lineage) : Sorghum (*Sorghum bicolor* L.)
Denomination : CSV 32F
Type of variety : New
Classification of variety : Typical (Parental line)
Name of parental material : HC260 x B-35 (5-3-1-1)
Name of reference varieties : CSV 21 F, HC 308
Notification details : Number: 1228 (E), Dated: 07.05.2015

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Kharif or rabi adaptation	*Kharif*
Plant: Time of panicle emergence (50% of the plants with complete panicle emergence) (Characteristic 4)	Medium
Plant: Total height at maturity) (Characteristic 18)	Long

Panicle: Shape (Characteristic 27)	Symmetrical
Caryopsis: Colour after threshing (Characteristic 33)	Yellow White

B. Distinct characteristics of candidate variety:

CSV 32F: It has distinguishing characters like yellow green seedling anthocyanin colouration of coleoptile, medium time of panicle emergence, yellow green anthocyanin colouration of leaf sheath, long plant height, very long leaf blade, medium grain weight.

C. Distinct characteristics of reference varieties:

CSV 21 F: It has distinguishing characters like greyed purple seedling anthocyanin colouration of coleoptile, late time of panicle emergence, greyed purple anthocyanin colouration of leaf sheath, very long plant height, long leaf blade, very low grain weight

HC 308: It has distinguishing characters like greyed purple seedling anthocyanin colouration of coleoptile, late time of panicle emergence, greyed purple anthocyanin colouration of leaf sheath, very long plant height, long leaf blade, low grain weight

D. Date of commercialization of the variety	Not Commercialized

E. Agronomic and commercial attributes

S.no.	Agronomic attributes	Details
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	71
3.	Days to physiological maturity (average)	115-118
4.	Seed rate per ha	8 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	3-4 tonnes FYM
	Inorganic (per ha)	For light soil & low rainfall areas; 24:12:12 kg/ha NPK For medium-deep soils & moderate to high rainfall areas; 32:16:16 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	45 cm
	Plant to plant	12-15 cm
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	3rd week of June to 1st week of July
10.	Number of irrigations required to attain potential yield	4
11.	The best growing season to attain the potential yield (zone-wise)	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Zone-II (Maharashtra, Tamil Nadu)
13.	Intercultural operations (including training, pruning & nipping)	Weeding at 20-25 days after sowing
14.	Any other relevant information specific to the	Dual purpose variety

	variety/hybrid	
	Commercial attributes	
1.	Zone- wise yield potential (average) per ha (q/ha) (if applicable)	Zone II (Dry fodder) = 161 q/ha Zone II (See yield) = 17 q/ha
2.	Seed yield q/ha (average)	Grain yield = 11-13 q/ha Fodder yield = 74-76 q/ha

16. Application No. | N3 | SB6 | 18 | 523 | filed on 17.05.2018 by **Indian Council of Agricultural Research, Dr.R.B.Ghorade, Senior Research Scientist, Sorghum Research Unit, Dr. P.D.K.V., Akola-444104** for a new plant variety notified under the Seed Act, 1966 of crop **Sorghum** (*Sorghum bicolor* L.) having denomination **AKSV 181 (PDKV Kalyani)**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : AKSV 181 (PDKV Kalyani)
Applicant : Dr. P.D.K.V., Akola
Address of the applicant : Dr. R.B. Ghorade, Senior Research Scientist, Sorghum Research Unit, Dr. P.D.K.V., Akola-444104
Nationality of applicant : Indian
Application details :
a. Number : | N3 | SB6 | 18 | 523 |
b. Date of receipt : 17.05.2018

Crop (taxonomical lineage) : Sorghum (*Sorghum bicolor* L.)
Denomination : AKSV 181 (PDKV Kalyani)
Type of variety : New
Classification of variety : Typical variety
Name of parental material : (SU56 x SPV775) x (SPV1033 x GMPR 4)
Name of reference varieties : CSV 20
Notification details : Number: 1007 (E), Dated: 30.03.2017

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Kharif or rabi adaptation	
Plant: Time of panicle emergence (50% of the plants with complete panicle emergence) (Characteristic 4)	Medium
Plant: Total height at maturity) (Characteristic 18)	Long
Panicle: Shape (Characteristic 27)	Symmetrical
Caryopsis: Colour after threshing (Characteristic 33)	Yellow White

B. Distinct characteristics of candidate variety:

AKSV 181 (PDKV Kalyani): It has distinguishing characters like seedling anthocyanin colour of coleoptile is yellow green, leaf sheath anthocyanin colouration is yellow green, mid-rib colour of leaf is yellow green, stigma anthocyanin colouration-absent, medium stigma length, glume colour-greyed orange, neck of panicle visible above leaf sheath is medium, glume length-short, grain texture of endosperm is farinaceous, grain is non lustrous, grain shape is circular, grain size medium

C. Distinct characteristics of reference variety

CSV 20: It has distinguishing characters like short neck of panicle visible above leaf sheath, medium glume length, stigma anthocyanin colouration present

D. Date of commercialization of the variety	12.06.2017

E. Agronomic and commercial attributes

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	71
3.	Days to physiological maturity (average)	115-117
4.	Seed rate per ha	8 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	80:40:40 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cms) requirement to attain potential yield	
	Row to row	45 cm
	Plant to plant	15 cm
7.	Soil requirements to attain the potential yield	Medium to deep, well drained soil
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	15^{th} June-10^{th} July
10.	Number of irrigations required to attain potential yield	Protective irrigation
11.	The best growing season to attain the potential yield (zone-wise)	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	*Kharif* area of Maharashtra
13.	Intercultural operations (including training, pruning & nipping)	One ploughing & 2-3 hoeing
14.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Zone -wise yield potential (average) per ha (q/ha) (if applicable)	-
2.	Seed yield/ha (average)	Grain yield= 35.38 q/ha Fodder yield= 150-155 q/ha

17. Application No. | N1 | SB11 | 16 | 286 | filed on 06.04.2016 by **Indian Council of Agricultural Research, All India Co-ordinated Sorghum Improvement Project (AICSIP), Regional Agri. Research Station, PJTSAU, Palem-509215, Telangana** for an new plant variety notified under the Seed Act, 1966 of crop **Sorghum** (*Sorghum bicolor* L.) having denomination **Palamuru Jonna (SPV-2122),** has been accepted and given registration number ----------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : Palamuru Jonna (SPV-2122)
Applicant : ICAR, New Delhi
Address of the applicant : All India Co-ordinated Sorghum Improvement Project (AICSIP), Regional Agri. Research Station, PJTSAU, Palem-509215Telangana
Nationality of applicant : Indian
Application details :
a. Number : N1 | SB11 | 16 | 286
b. Date of receipt : 06.04.2016

Crop (taxonomical lineage) : Sorghum (*Sorghum bicolor* L.)
Denomination : Palamuru Jonna (SPV-2122)
Type of variety : New
Classification of variety : Typical variety
Name of parental material : SPV462 x SPV1329
Name of reference varieties : CSV20, CSV23
Notification details : Number: 2680 (E), Dated: 01.10.2015

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Kharif or rabi adaptation	*Kharif*
Plant: Time of panicle emergence (50% of the plants with complete panicle emergence) (Characteristic 4)	Medium
Plant: Total height at maturity) (Characteristic 18)	Medium
Panicle: Shape (Characteristic27)	Symmetric
Caryopsis: Colour after threshing (Characteristic 33)	Yellow white

B. Distinct characteristics of candidate variety:
Palamuru Jonna (SPV-2122):It has distinguishing characters like medium plant height at maturity, stigma yellow colouration-present, broad leaf width of blade, short glume length, stigma anthocyanin colouration-present, panicle length without peduncle is medium, ear head

compactness-semi compact, panicle shape symmetric, freely threshable, caryopsis colour after threshing-yellow white, grain shape-elleptic, grain is non lustrous		
C. Distinct characteristics of reference varieties: CSV20: It has distinguishing characters like long plant height at maturity, stigma yellow colouration absent, very broad leaf width of blade, medium glume length. CSV23: It has distinguishing characters like long plant height at maturity, grain is lustrous		
D. Date of commercialization of the variety	Not Commercialized	
E. Agronomic and commercial attributes		
S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	60-65
3.	Days to physiological maturity (average)	106-110
4.	Seed rate per ha	8 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	80:40:40 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	45 cm
	Plant to plant	15 cm
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	3rd week of June to 1st week of July
10.	Number of irrigations required to attain potential yield	2
11.	The best growing season to attain the potential yield (zone-wise)	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Zone 1of AICSIP
13.	Intercultural operations (including training, pruning & nipping)	-
14.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Zone -wise yield potential (average) per ha (q/ha) (if applicable)	Grain yield: 33.76q/ha Fodder yield: 144.34q/ha
2.	Seed yield/ha (average)	Grain yield = 30-35 q/ha Fodder yield= 120-150 q/ha

18. Application No. | E4 | TA60 | 18 | 705 | filed on 29.11.2018 by **Indian Council of Agricultural Research, Director, ICAR-Indian Institute of Wheat and Barley Research, Karnal-132001** for an extant plant variety notified under the Seed Act, 1966 of crop **Wheat** (*Triticum aestivum* L.) having denomination **DBW 173**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : DBW 173
Applicant : ICAR, New Delhi
Address of the applicant : ICAR-Indian Institute of Wheat and Barley Research, Karnal (Haryana)-132001
Nationality of applicant : Indian
Application details :
a. Number : E4 | TA60 | 18 | 705
b. Date of receipt : 29.11.2018

Crop (taxonomical lineage) : Wheat (*Triticum aestivum* L.)
Denomination : DBW 173
Type of variety : Extant
Classification of variety : Typical variety
Name of parental material : KAUZ/AA//KAUZ/PBW602
Name of reference varieties : DBW90, WH1021
Notification details : Number: 1379 (E), Dated: 27.03.2018

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Flag leaf: Anthocynin coloration of auricle (Characteristic 4)	Absent
Time of ear emergence (Characteristic 7)	Medium
Plant length (Characteristic 14)	Medium
Awn or scurs: Presence (Characteristic 18)	Present
Outer glume: Pubescence (Characteristic 23)	Absent
Ear: Colour (Characteristic 24)	White
Season type (Characteristic 37)	Spring
Grain hardness (Characteristic 38)	Hard

B. Distinct characteristics of candidate variety:
DBW 173: It has distinguishing characters like coleoptile anthocyanin colouration-absent, semi-erect plant growth habit, dark green foliage colour, semi-erect plant flag leaf attitude, medium time of emergence, long glume beake length, very strong flag leaf waxiness of sheath, medium plant length, medium ear density, awns present spreading awn attitude, white ear colour, amber grain colour, oblong grain shape and hard grain hardness.

C. Distinct characteristics of reference varieties:
DBW90: It has distinguishing characters like green foliage colour, drooping plant flag leaf attitude, early time of emergence, strong flag leaf waxiness of sheath, medium awn length,

medium awn attitude, semi hard grain. WH1021: It has distinguishing characters like erect plant growth habit, green foliage colour, long plant length, ovate grain shape and semi hard grain.		
D. Date of commercialization of the variety	Not Commercialized	
E. Agronomic and commercial attributes		
S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	81
3.	Days to physiological maturity (average)	122
4.	Seed rate per ha	125 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	120:60:40 kg/ha NPK
	Other fertilizers (per ha)	-
6.	Spacing (cms) requirement to attain potential yield	
	Row to row	-
	Plant to plant	-
7.	Soil requirements to attain the potential yield	-
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	10^{th} -25^{th} December
10.	Number of irrigations required to attain potential yield	3-5
11.	The best growing season to attain the potential yield (zone-wise)	Spring
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	North Western Plain Zone
13.	Intercultural operations (including training, pruning & nipping)	-
14.	Any other relevant information specific to the variety/hybrid	-
	Commercial attributes	
1.	Zone-wise yield potential (average) per ha (q/ha) (if applicable)	30.9-57q/ha
2.	Seed yield/ha (average)	47.2 q/ha

19. Application No. | E4 | AC6 | 14 | 1909 | filed on 15.09.2014 by **Indian Council of Agricultural Research, Director, ICAR-Directorate of Onion and Garlic Research, Rajgurunagar, Dist: Pune-410505, Maharashtra** for an extant plant variety notified under the Seed Act, 1966 of crop **Onion** (*Allium cepa* L.) having denomination **BHIMA SHUBHRA (NRCWO-4/W-009)** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : BHIMA SHUBHRA (NRCWO-4/W-009)
Applicant : Indian Council of Agricultural Research, New Delhi
Address of the applicant : Director, ICAR-Directorate of Onion and Garlic Research, Rajguru Nagar, Pune, Maharashtra-410505
Nationality of applicant : Indian
Application details :
a. Number :

E4	AC6	14	1909

b. Date of receipt : 15.09.2014

Crop (taxonomical lineage) : Onion (*Allium cepa* L.)
Denomination : BHIMA SHUBHRA (NRCWO-4/W-009)
Type of variety : Extant
Classification of variety : Typical (OPV)
Name of parental material : Segregating bulbs from red onion germplam (W-009) from Yeola, Nashik
Name of reference varieties : Pusa White Round, Pusa White Flat
Notification details : Number: 2277 (E), Dated: 17.08.2015

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Bulb: Diameter (Characteristic 5)	Medium
Bulb: General shape (in longitudinal section) (Characteristic 23)	Globe
Bulb: Basic colour of dry skin (Characteristic 24)	White
Bulb: Degree of splitting into bulblets (with dry skin around each bulblet) (Characteristic 32)	Absent

B. Distinct characteristics of candidate variety:
BHIMA SHUBHRA (NRCWO-4/W-009): It has distinguishing characters like medium number of leaves per pseudo-stem, medium bulb time of maturity, semi erect foliage attitude, small pseudo-stem diameter, globe general shape of bulb, thin bulb thickness, single bulb predominant number of axes, degree of splitting into bulblets is absent, basic colour of dry skin is white, foliage intensity of green colour is medium.

C. Distinct characteristics of reference varieties:
Pusa White Round: It has distinguishing characters like late bulb maturity, flat globe general shape of bulb, degree of splitting into bulblets is medium, foliage intensity of green colour is light
Pusa White Flat: It has distinguishing characters like few number of leaves per pseudo-stem, late bulb maturity, flat globe general shape of bulb, multiple bulb predominant number of axes, degree of splitting into bulblets is medium, foliage intensity of green colour is dark

D. Date of commercialization of the variety	17.05.2013

E. Agronomic and commercial attributes		
S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis(average)	-
3.	Days to maturity (average)	110-115
4.	Planting material/seed material requirement	8 kg/ha
5.	Fertilizer requirement to attain potential yield and time of application	
	Organic (per ha or per plant)	5kg *Trichoderma* + 1q FYM
	Inorganic (per ha or per plant)	100:50:50 kg/ha NPK
	Other fertilizers (per ha or per plant)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	25 cm
	Plant to plant	10 cm
7.	Soil requirements to attain the potential yield	Loamy
8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	-
10.	Number of irrigations required to attain potential yield (zone-wise)	8-10 days for warm weather 10-15 days for cool weather
11.	The best growing season to attain the potential yield	*Kharif* & late *Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Zone IV, V, VI and Late *Kharif* zone of Maharashtra
13.	Any other relevant information specific to the variety/hybrid	Ist white onion variety
	Commercial attributes	
1.	Yield potential (average) per ha (q/ha)	Zone IV= 193.37 q/ha Zone V= 166.78 q/ha Zone VI = 212.77 q/ha
2.	Yield of fruits per plant (average)	224.18 q/ha

20. Application No. | E9 | EL23 | 16 | 501 | filed on 17.05.2016 by **University of Agricultural Sciences, Dr. B. S. Janagoudar, Director of Research, University of Agricultural Sciences, Dharwad-580005, Karnataka** for an extant plant variety notified under the Seed Act, 1966 of crop **Finger Millet** (*Eleusine coracana* (L.) *Gaertn.*) having denomination **DHRS 1** has been accepted and given registration number ---------NA ----------on ----------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : DHRS 1

Applicant : University of Agricultural Sciences, Dharwad
Address of the applicant : Dr. B. S. Janagoudar, Director of Research, University of Agricultural Sciences, Dharwad-580005, Karnataka
Nationality of applicant : Indian
Application details :
a. Number : E9 | EL23 | 16 | 501
b. Date of receipt : 17.05.2016

Crop (taxonomical lineage) : Finger Millet (*Eleusine coracana* (L.) *Gaertn.*)
Denomination : DHRS 1
Type of variety : Extant
Classification of variety : Typical variety
Name of parental material : GPU 26 x Sel 11
Notification details : Number: 2326 (E), Dated: 10.10.2011

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Season	*Kharif*
Plant: Pigmentation at leaf juncture (Characteristic 2)	Medium purple pigmentation
Days to 50% flowering (Characteristic 4)	65
Ear: Shape (Characteristic 10)	-
Finger: Branching (Characteristic 11)	7-8
Seed: Colour (Characteristic 23)	Copper brown
B. Distinct characteristics of candidate variety: DHRS 1: It has distinguishing characters like plant pigmentation at leaf juncture, medium days to 50 % flowering, long ear head length, tall plant height at maturity.	
C. Distinct characteristics of reference variety: HMT 100-01: Decumbent plant growth habit, high finger number on main ear, long finger length, round seed shape, wide finger width	
D. Date of commercialization of the variety	10.10.2011
E. Agronomic and commercial attributes	

S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (determinate/indeterminate)	-
2.	Days to flowering/anthesis (average)	65
3.	Days to physiological maturity (average)	110
4.	Seed rate per ha	12 kg/ha
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	-
	Inorganic (per ha)	As per recommendation
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row	30 cm
	Plant to plant	5 cm
7.	Soil requirements to attain the potential yield	-

8.	Plant protection measures to attain the potential yield	-
9.	Sowing window requirement to attain potential yield (zone-wise)	1st fortnight of June - 2nd fortnight of July
10.	Number of irrigations required to attain potential yield	-
11.	The best growing season to attain the potential yield (zone-wise)	*Kharif*
12.	Name the cropping/climatic zone of India in which the varietal/hybrid trials were conducted	Northern Karnataka (Zone III, Zone VIII)
13.	Intercultural operations (including training, pruning & nipping)	-
14.	Any other relevant information specific to the variety/hybrid	Drought tolerant & resistant to blast disease
	Commercial attributes	
1.	Zone wise yield potential (average) per ha (q/ha) (if applicable)	Zone III (Grain yield) = 29.41 q/ha (Fodder yield) = 3.77 q/ha Zone VIII (Grain yield) = 21.67
2.	Seed yield/ha (average)	26.94 q/ha

21. Application No. | N16 | BB16 | 10 | 464 | filed on 27.12.2010 by **Nuziveedu Seeds Ltd., NSL ICON, No. 8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034, Telangana** for a New Variety of crop **Cauliflower** (*Brassica oleracea* L.var. *botrytis)* having denomination **NCFD-60**, the specification includes its drawing and or photograph(s) of which are given below, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : NCFD-60
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : NSL ICON, No. 8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034, Telangana
Nationality of applicant : Indian
Application details
a. Number : | N16 | BB16 | 10 | 464 |
b. Date of receipt : 27.12.2010
c. Date of acceptance : --
Crop (taxonomical lineage) : Cauliflower (*Brassica oleracea* L.var. *botrytis)*
Denomination : NCFD-60

Type of variety : New
Classification of variety : Other (Parental Line)
Previously proposed Denomination : Not applicable
Name of parental material : NCFD-60 (PCFD-117)
Source of parental material : Own germplasm
Name of reference varieties : Kashi Kuwari, PUSA MEGHNA and PUSA KARTIK SANKAR

Variety description:

A. Group characteristics	**Remarks (measured values/ example varieties *etc.*)**
Seedling: Anthocyanin colouration of hypocotyl (Characteristic 1)	Absent
Curd: Covering by inner leaves (Characteristic 16)	Not covered
Curd: Shape in longitudinal section (Characteristic 19)	Broad elliptic
Curd: Maturity group (Characteristic 26)	Early
B. Distinct characteristics of candidate variety: NCFD-60 has distinguishing character as narrow elliptic leaf shape with compact curd.	
C. Distinct characterisitics of reference varieties: Kashi Kuwari has distinguishing character as broad elliptic leaf shape, loose curd compactness. PUSA MEGHNA has distinguishing character as broad elliptic leaf shape, medium curd compactness. PUSA KARTIK SANKAR has distinguishing character as broad elliptic leaf shape with medium curd compactness.	
D. Date of commercialization of the variety	23.01.2010

E. Agronomic and commercial attributes

S.No.	**Agronomic attributes**	**Details**
1	Growth habit (determinate/indeterminate)	Semi Erect
2	Days to flowering/anthesis (average)	55 days after planting
3	Days to maturity (average)	110 days after planting
4	Seeds rate/requirement per ha	400 g/ha
5	Fertilizer requirement to attain potential yield and time of application	
	Organic (per ha or per plant)	10 ton
	Inorganic (per ha)	200 : 125 : 150 NPK kg/ha
	Other fertilizer (per ha or per plant)	-
6	Spacing (cm) requirement to attain potential yield	
	Row to row	60 cm
	Plant to plant	30 cm
7	Soil requirement to attain potential	Sandy loam

	yield	
8	Plant protection measure to attain potential yield	Damping Off: Drench nursery beds with copper oxychloride or Captan (2g/L of Water). Downey Mildew: Spray copper oxychloride or mancozeb (2g/L) or metalaxylmancozeb (1g/L). Alternaria Blight: Spray mancozeb or copper oxychloride (2g/L). Black Rot: Treats seeds before sowing in 1000 ppm (1g/L) of streptocycline for 30 minutes. Diamond Back Moth: Spray neem seed kernel extract (4%) or preparation of Bacillus thuringensis at 15, 25 and 35 days after planting. Aphids: spray monocrotophos or dimethoate (1.5 ml/L) or oxydematon methyl (2 ml/L). Leaf Webber / Stem Borer: Spray monocrotophos or cypermethrin (1 ml/L). Boron Deficiency: Apply borax @ 10-15 kg/ha at the time of final land preparation.
9	Sowing window requirement to attain potential yield	15th -30th June
10	Number of irrigation required to attain potential yield	As per requirement
11	The best growing season to attain potential yield	*Kharif*
12	Name the cropping/climate zone of India in which the variety/hybrid trails were conducted	Semi arid and humid sub-tropical
13	Any other relevant information specific to the variety/hybrid	NA

	Commercial attribute	
1	Yield potential (average) per ha (q/ha)	180
2	Yield of fruit per plant (average)	500 gm
3	Size of the fruit (average)	7.0 x 12.5 cm
4	Weight of each fruit (average)	500 gm
5	Plant height (average)	90 cm
6	Reaction against major diseases and pests	Susceptible
7	Reaction to major abiotic stresses like drought, heat, salinity *etc.*	Susceptible
8	Storage/keeping quality after the harvest	Poor
9	Any other measures to achieve the potential yield	NA

22. Application No. | N24 | LL24 | 10 | 490 | filed on 28.12.2010 by **Nuziveedu Seeds Ltd, NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12,**

Banjara Hills, Hyderabad-500034, Telangana for a New Variety of crop **Tomato** (*Solanum lycopersicum* L.) having denomination **BA-1559**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : BA-1559
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034, Telangana.
Nationality of applicant : Indian
Application details
a. Number : N24 | LL24 | 10 | 490
b. Date of receipt : 28.12.2010
c. Date of acceptance : --
Crop (taxonomical lineage) : Tomato (*Solanum lycopersicum* L.)
Denomination : BA-1559
Type of variety : New
Classification of variety : Other (Parental Line)
Previously proposed Denomination : Not applicable
Name of parental material : NTM-01 x D-350
Source of parental material : Own germplasm
Name of reference varieties : Kashi Sharad, Arka alok, Arka Vikas, Vybhav, and Laxmi

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Plant: Growth type (Characteristic 3)	Determinate
Leaf: Serration (Characteristic 12)	Highly serrated
Fruit: Green shoulder (before maturity) (Characteristic 29)	Present
Fruit: Shape in longitudinal section (Characteristic 33)	Slightly flattened
Fruit: Colour at maturity (Characteristic 43)	Red
B. Distinct characteristics of candidate variety: BA-1559 has distinguishing character as present fruit green shoulder (before maturity).	
C. Distinct characteristics reference varieties: Kashi Sharad has distinguishing character as absence of fruit green shoulder (before maturity). Arka alok has distinguishing character as absence of fruit green shoulder (before maturity).	

Arka Vikas has distinguishing character as absence of fruit green shoulder (before maturity). Vybhav has distinguishing character as absence of fruit green shoulder (before maturity). Laxmi has distinguishing character as absence of fruit green shoulder (before maturity).	
D. Date of commercialization of the variety	Not commercialized.

E. Agronomic and commercial attributes

S.No.	Agronomic attributes	Details
1	Growth habit (determinate/indeterminate)	Determinate
2	Days to flowering/anthesis (average)	32
3	Days to maturity (average)	65-70
4	Planting material / seeds material requirement	18500 seedlings/150g seeds/ha
5	Fertilizer requirement to attain potential and time of application	
	Organic (per hactor or per plant)	6-8 ton/ha
	Inorganic (per ha)	80:100:100 NPK kg/ha
	Other fertilizer (per hactor or per plant)	20 kg CAN/ha
6	Spacing (cm) requirement to attain potential yield	
	Row to row	90-120 cm
	Plant to plant	60-75 cm
7	Soil requirement to attain potential yield	Sandy loam
8	Plant protection measure to attain potential yield	

Insects Pests	Agrochemical and dose
Aphids/Jassids	Confidor/Actara/Monocrotophos 0.5ml/0.3ml/1.5ml per L
Thrips	Metasystox/Regent/Monocrotophos 3ml/2ml/2ml per L
Mites	Metasystox/Dicofol/vertimec/omits 3ml/4ml/0.15ml/2ml per L
Leaf miner	Hostathion mix neem oil the spray 3 ml per L
Borers/fruit flies	Chlorophyriphos/Quinalphos 2ml/2ml per L
Disease	Fungicide and dose
Stem rot/canker	Blitox 2 grm/lt for drenching
Early blight	Indofil-M-45/ Kavach/RIDOMIL/Antracol 2 g per L
Powdery	Thiovit/cumulus/karathane/contaf/salfer

		mildew	2-3 g/L
		Leaf curl virus (Vector-White Flies)	Confidor 0.3ml per L to prevent vector
		TOSPO Virus (Vector-Thrips)	Metasystox/Regent/Monocrotophos 3ml/2ml/2ml per L to prevent vector
9	Sowing window requirement to attain potential yield	Aug-Oct	
10	Number of irrigation required to attain potential yield	4-6 (Based on soil type and temperature)	
11	The best growing season to attain potential yield	Post *Kharif*/rabi	
12	Name the cropping/climate zone of India in which the varietal/hybrid trail were conducted	Zone-IV, V, VI & VII (Varanasi, Sonepat, Pune & Kolkata)	
13	Any other relevant information specific to the variety/hybrid	TY virus tolerant	

	Commercial attribute	
1	Yield potential (average) per ha (q/ha)	350-400
2	Yield of fruit per plant (average)	5-6 kg
3	Size of the fruit (average)	
4	Weight of each fruit (average) (g)	90
5	Plant height (AM) (average)	120-140 cm
6	Reaction against major diseases and pests	Tolerance against TY virus/white fly
7	Reaction against major abiotic stresses like drought, heat, salinity etc	No
8	Storage/keeping quality after the harvest	8-12 days
9	Any other measures to achieve the potential yield	No

23. Application No. | E68 | PG4 | 07 | 18 | on 21.05.2007 by **Maharashtra Hybrid Seeds Company Limited, Resham Bhavan, 4th Floor, 78, Veer Nariman Road, Mumbai-400020 Maharashtra** for an Extant Variety of crop **Pearl Millet** (*Pennisetum glaucum* (L.) R.Br.) Having denomination **B 2037** the specification includes its drawing and or photograph(s) of which are given below, has been accepted and given registration number ---------NA ---------- on ---------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : B 2037
Applicant : Maharashtra Hybrid Seeds Company Limited
Address of the applicant : Resham Bhavan, 4th floor, 78, Veer Nariman Road, Mumbai-400020, Maharashtra.
Nationality of applicant : Indian
Application details
a. Number : E68 | PG4 | 07 | 18
b. Date of receipt : 21.05.2007
c. Date of acceptance : --
Crop (taxonomical lineage) : Pearl Millet (*Pennisetum glaucum* (L.) R.Br.)
Denomination : B 2037
Type of variety : Extant
Classification of variety : Other (Parental line)
Previously proposed Denomination : Not applicable
Name of parental material : MS 863A x K82/7407-SB
Source of parental material : Own germplasm
Name of reference Varieties : NANDI 8 and 86M52

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Plant: Time of spike emergence (Characteristic 3)	Late
Anther: Colour (Characteristic 8)	Nil
Spike: Shape (Characteristic 19)	Conical
Seed: Colour (Characteristic 24)	Grey
Seed: Shape (Characteristic 25)	Hexagonal
B. Distinct characteristics of candidate variety: B 2037 has distinguishing character as green plant node pigmentation, conical spike shape.	
C. Distinct characteristics of reference varieties: NANDI 8 has distinguishing character as red plant node pigmentation, Lanceolate spike shape. 86M52 has distinguishing character as Lanceolate spike shape.	
D. Date of commercialization of the variety	26.04.2003
E. Agronomic and commercial attributes	

Agronomic attributes of B 2037:

(1) Conical spike shape.
(2) Grey colour seed with bold size.

Commercial attributes of B 2037:

B 2037 is a pure line and is not sold in the market. It is used as parent in designing hybrid combination as it has very good combining ability, conical shape spike and bold size seed with grey colour. It is tolerant to downy mildew disease.

24. Application No. | E9 | SM31 | 10 | 429 | filed on 27.12.2010 by **Sungro Seeds Private Limited, 3rd Floor, Manish Chambers, B.N. Block, Local Shopping Centre, Shalimar Bagh, New Delhi-110088** for a Extant (VCK) Variety of crop **Brinjal** (*Solanum melongena* L.) having denomination **S-EP-001** the specification includes its drawing and or photograph(s) of which are given below, has been accepted and given registration number ---------NA ----------on ---------- ------ NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : S-EP-001
Applicant : Sungro Seeds Private Limited
Address of the applicant : 3rd Floor, Manish Chambers, B.N. Block, Local Shopping Centre, Shalimar Bagh, New Delhi-110088
Nationality of applicant : Indian
Application details
a. Number : | E9 | SM31 | 10 | 429 |
b. Date of receipt : 27.12.2010
c. Date of acceptance : --
Crop (taxonomical lineage) : Brinjal *(Solanum melongena* L.*)*
Denomination : S-EP-001
Type of variety : Extant (VCK)
Classification of variety : Other (Inbred parent line)
Previously proposed denomination : Not applicable
Name of parental material : OB-310 x D-508
Source of parental material : Own germplasm
Name of reference varieties : Arka Kusumakar and DBL-329

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Fruit: Length (Characteristic 20)	Short
Fruit: Diameter (Characteristic 21)	Medium
Fruit: General shape (Characteristic 23)	Ovoid
Fruit: Colour of skin at commercial harvesting (Characteristic 27)	Green
Fruit: Stripes (Characteristic 30)	Absent
Fruit: Colour of calyx (Characteristic 35)	Green

B. Distinct characteristics of candidate variety:

S-EP-001 has distinguishing character such as presence of seedling anthocyanin colouration of hypocotyls, presence of stem anthocyanin colouration, short fruit length and absence of fruit stripes.

C. Distinct characteristics of reference varieties:

Arka Kusumakar has distinguishing character as absence of seedling anthocyanin colouration of hypocotyls, absence of stem anthocyanin colouration, medium fruit length and presence of fruit stripes.

DBL-329 has distinguishing character as absence of seedling anthocyanin colouration of hypocotyls, absence of stem anthocyanin colouration, medium fruit length and presence of fruit stripes.

D. Date of commercialization of the variety	Not commercialized.

E. Agronomic and commercial attributes

S.No.	**Agronomic attributes**	**Details**
1.	Plant habit	Semi spreading
2.	First harvesting (DAT)	-
3.	Fruit shape	Ovoid
4.	Fruit colour	Green
5.	Average fruit weight (gram)	-
6.	Fruit bearing habit	Mixed
7.	Calyx	Green, non-spiny

25. Application No. | E13 | SM13 | 12 | 86 | filed on 30.03.2012 by **Nuziveedu Seeds Ltd., Survey No. 69, Gundlapochampally (Vill. & Panchayat), Medchal-Mandal, Rangareddy-Dist-501401, Telangana** for an Extant (VCK) Variety of crop **Brinjal** (*Solanum melongena* L.) having denomination **NBJ-18**, has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV & FR Authority, New Delhi – 110 012.

Passport data of the variety : NBJ-18
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : Survey No. 69, Gundlapochampally (Vill. & Panchayat), Medchal-Mandal, Rangareddy- Dist-501401, Telangana
Nationality of applicant : Indian
Application details
a. Number : | E13 | SM13 | 12 | 86 |
b. Date of receipt : 30.03.2012
c. Date of acceptance : --
Crop (taxonomical lineage) : Brinjal (*Solanum melongena* L.)
Denomination : NBJ-18
Type of variety : Extant (VCK)

Classification of variety : Other (Parental Line)
Previously proposed Denomination : Not applicable
Name of parental material : NBGP-22 x NEELAM
Source of parental material : Own germplasm
Name of reference Varieties : TRB-9, Pusa Kranti and Pusa Purple Long

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Fruit: Length (Characteristic 20)	Medium
Fruit: Diameter (Characteristic 21)	Medium
Fruit: General shape (Characteristic 23)	Club shaped
Fruit: Colour of skin at commercial harvesting (Characteristic 27)	Purple
Fruit: Stripes (Characteristic 30)	Absent
Fruit: Colour of calyx (Characteristic 35)	Green

B. Distinct characteristics of candidate variety:
NBJ-18 has distinguishing character as absence of seedling anthocyanin colouration of hypocotyl.

C. Distinct characteristics of reference varieties:
TRB-9 has distinguishing character such as presence of seedling anthocyanin colouration of hypocotyl.
Pusa Kranti has distinguishing character such as presence of seedling anthocyanin colouration of hypocotyl.
Pusa Purple Long has distinguishing character such as presence of seedling anthocyanin colouration of hypocotyl.

D. Date of commercialization of the variety	21.06.2006

E. Agronomic and commercial attributes

S.No.	**Agronomic attributes**	**Details**
1	Suitability of the variety for the area agro climatic zone	Zone-7 (Semi arid lava plateau and central highlands).
2	Selection of field/land preparation practices	Well drained clay loam & silty loam, pH is 5.5-6.5 soil and 4-5 times ploughing.
3	Seed treatment- rate of chemical/timing	Treat with the fungicide Captan (@ 2 g/kg seed) before sowing.
4	Sowing time	*Kharif*: May-June, Rabi: Oct-Nov, Summer:Jan-Feb
5	Seed rate/sowing method-line sowing with row to row & plant to plant distance/direct sowing	Seeds 200-250 g/ha, Sowing on bed (3-length, 1-wide and 0.15-meter height) and sow the seeds 1cm deep in rows and 5 cm apart, planting spacing 90 x 60 cm.
6	Fertilizer dose with timing	Basal dose/hectare: Urea-250 kg, DAP-300 kg, MOP-300 kg. Top Dressing: Urea-250 kg (After 25 Days), A. Sulphate-375 kg (After 55 Days).
7	Weed control-chemicals with	Hand weeding is used to control weeds. Pre-plant

	doses & timing	soil, incorporation of Fluchloralin (1-1.5 kg/ha) or Oxadiazon (0.5 kg/ha) and pre-planting surface spraying of Alachlor (1-1.5 kg/ha) controls the weeds of Brinjal successfully.
8	Diseases & pest control-chemicals with doses and timing	Damping off- Drench nursery beds with Captan 50% WP/Copper oxychloride 35%/ Chlorothalanil/ Metalaxyl 8% + Mancozeb 64% WP @ 2g/L. Bacterial Wilt: Seed treatment with Streptocycline (150 ppm) for 90 minutes, Fusarium Wilt: Soil drench with Captan @ 0.3%. Spray Dimlethoate (0.05%) or Monocrotophos (0.05%) at 10 days interval. Shoot & Fruit Borer: Prune drooping shoots; spary monocrotophos 36% SL/Dementon Methyl 25% EC/Dichlorvos 76% EC @ 400-500 ml/ha at 10-14 days interval. Aphids and Sucking Pests: Spray Dimethoate 40% EC @ 1.5 ml/litre Imidacloprid @ 0.5 ml/L. Epilachna bettle-Spray Parathion or Diazianon 10% WP & 20% EC @ 1 to 2 kg/ha, Carbaryl 50% WP @ 4 g/L or Quinolphos @ 2ml/L.
9	Irrigation schedule	Total 25-30-light irrigation, 7-12 days interval in winters and 4-5 days interval in summers.
10	Harvesting	The Brinjal fruits are harvested when they attain full size and colour but before start of ripening. Tenderness, bright colour and glossy appearance of fruit is the optimum stage of harvesting of fruits.
11	Quality characteristics of the variety, if any	Plant semi-erect, fruit long, dark purple in colour, calayx green, fruit weight 80-90 g.
12	Expected yield of the variety	50-55 tons/ha
	Commercial attributes	
1.	Plant vigor	Vigorous
2.	Plant type/habit	Semi-erect
3.	Fruit shape	Cylindrical long
4.	Fruit colour	Dark purple
5.	Fruit size	80-90 g
6.	Maturity	60-65 days after transplanting
7.	Fruit length	18-20 cm
8.	Fruit width	3.5-4.0 cm
9.	Calyx colour	Green
10.	Flower colour	Purple
11.	Avg. Yield (per ha)	50-55 tons/ha

26. Application No. E43 | GH20 | 8 | 246 filed on 02.04.2008 by **Maharashtra Hybrid Seeds Company Limited, Resham Bhavan, 4th Floor, 78, Veer Nariman Road, Mumbai-400020** for New variety of crop **Tetraploid cotton** (*Gossypium hirsutum* L.) having denomination

C 5715 has been accepted and given registration number ---------NA ----------on---------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : C 5715
Applicant : Maharashtra Hybrid Seeds Company Limited
Address of the applicant : Resham Bhavan, 4th Floor, 78, Veer Nariman Road, Mumbai-400020
Nationality of applicant : Indian
Application details
a. Number : E43 | GH20 | 8 | 246
b. Date of receipt : 02.04.2008
c. Date of acceptance : --
Crop (Taxonomical lineage) : Tetraploid cotton (*Gossypium hirsutum* L.)
Denomination : C 5715
Type of variety : New
Classification of variety : Transgenic
Previously proposed denomination : Not applicable
Name of parental material : Parent 1: Non BG-II version of C 5706, Parent 2: C 5175 BG-II
Source of parental material : Own germplasm
Name of reference varieties : NH 545, G. Cot 18

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate
Flower: Petal colour (Characteristic 15)	Yellow
Flower: Pollen colour (Characteristic 19)	Cream
Boll: Shape (longitudinal section) (Characteristic 23)	Ovate
Fibre: Length (Characteristic 33)	Long
B. Distinct characteristics of candidate variety: C 5715 has distinguishing character as Boll: Prominence of tip: Blunt	
C. Distinct characteristics of reference variety: NH 545 and G. Cot 18 has distinguishing character as Boll: Prominence of tip: Pointed	
D. Date of commercialization of the variety	30.04.2013
E. Agronomic and commercial attributes	

S.No.	**Agronomic attributes**	**Details**
1.	Maturity duration	160-170 days (Medium late maturity)

2.	Boll shape	ovate
3.	Boll size	medium (4.5 – 5.0g),
4.	Boll opening	open
5.	Fiber length	28.5-29 mm
6.	Ginning outturn (%)	35.0-36.0
7.	Boll opening	fluffy
8.	Kapas retention	good
9.	Yield potential	1000-1400 kg/ha

27. Application No. N42 GH19 8 245 filed on 02.04.2008 by **Maharashtra Hybrid Seeds Company Limited, Resham Bhavan, 4th Floor, 78, Veer Nariman Road, Mumbai-400020** for New variety of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **C 5714** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : C 5714
Applicant : Maharashtra Hybrid Seeds Company Limited
Address of the applicant : Resham Bhavan, 4th Floor, 78, Veer Nariman Road, Mumbai-400020
Nationality of applicant : Indian
Application details
a. Number : N42 GH19 8 245
b. Date of receipt : 02.04.2008
c. Date of acceptance : --
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : C 5714
Type of variety : New
Classification of variety : Inbred parent line, Transgenic
Previously proposed denomination : Not applicable
Name of parental material : Parent 1: Non BG-II version of C 5714, Parent 2: C 5175 BG-II
Source of parental material : Own germplasm
Name of reference varieties : Abadhita, L 604.

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (Normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Cream
Boll: Shape (Characteristic 23)	Ovate

Fibre: Length (Characteristic 33)	Medium long
B. Distinct characteristics of candidate variety: C 5714 has distinguishing character as Leaf Hairiness: Sparse, Plant Stem Hairiness: Sparse	
C. Distinct characteristics of reference varieties: Abadhita and L 604 has character as Leaf Hairiness: Medium, Plant Stem Hairiness: Medium.	
D. Date of commercialization of the variety	15.05.2009
E. Agronomic and commercial attributes	

S.No.	**Agronomic attributes**	**Details**
1.	Maturity Duration (days)	170-180 (late maturity)
2.	Boll shape	ovate
3.	boll size	medium (4.1-4.3 g)
4.	Boll opening	open
5.	Fibre quality	fibre length 27.5-28.0 (mm)
6.	Ginning Outturn (%)	35.0-36.0
7.	Boll opening	fluffy
8.	Kapas retention	good
9.	Yield Potential	1100-1200 kg/ha

28. Application No. N56 GH39 8 265 filed on 02.04.2008 by **Maharashtra Hybrid Seeds Company Limited, Resham Bhavan, 4th Floor, 78, Veer Nariman Road, Mumbai-400020** for New variety of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **C 5538** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : C 5538
Applicant : Maharashtra Hybrid Seeds Company Limited
Address of the applicant : Resham Bhavan, 4th Floor, 78, Veer Nariman Road, Mumbai-400020
Nationality of applicant : Indian
Application details
a. Number : N56 GH39 8 265
b. Date of receipt : 02.04.2008
c. Date of acceptance : --
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : C 5538
Type of variety : New

Classification of variety : Inbred parent line, Transgenic
Previously proposed denomination : Not applicable
Name of parental material : Non Bt version of C 5538, MTC 531.90
Source of parental material : Own germplasm
Name of reference varieties : Abadhita, L 604

Variety description:

A. Group characteristics		**Remarks (measured values/example varieties *etc.*)**
Leaf: Shape (Characteristic 8)		Palmate (Normal)
Flower: Petal colour (Characteristic 15)		Cream
Flower: Pollen colour (Characteristic 19)		Yellow
Boll: Shape (Characteristic 23)		Ovate
Fibre: Length (Characteristic 33)		Medium long
B. Distinct characteristics of candidate variety: C 5538 has distinguishing character as Boll Opening: Open.		
C. Distinct characteristics of reference varieties: Abadhita has character as Boll opening: Semi-open. L 604 has character as Boll opening: Semi-open.		
D. Date of commercialization of the variety		--
E. Agronomic and commercial attributes		
S.No.	**Agronomic attributes**	**Details**
1.	Maturity Duration (days)	160-170 (medium late maturity)
2.	Boll shape	ovate
3.	Boll size	medium (4.5-5.0 g)
4.	Boll opening	open
5.	Fibre quality	fibre length 26.5-27.0 (mm)
6.	Ginning Out turn (%)	33.0-34.0
7.	Boll opening	fluffy
8.	Kapas retention	good
9.	Yield Potential	1000-1200 kg/ha

29. Application No. ED3 | GH11 | 13 | 88 filed on 05.03.2013 by **Nuziveedu Seeds Ltd, Survey No. 69, Gundlapochampally (Vill. & Panchayat), Medchal-Mandal, Rangareddy- Dist-501401** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **NC-47 (GMS)** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.----- NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : NC-47 (GMS)
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : Survey No. 69, Gundlapochampally (Vill. & Panchayat), Medchal-Mandal, Rangareddy- Dist-501401
Nationality of applicant : Indian
Application details
a. Number : ED3 | GH11 | 13 | 88
b. Date of receipt : 05.03.2013
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : NC-47 (GMS)
Type of variety : EDV
Classification of variety : Back Cross Derivative (one of the parental lines of cotton hybrid PRCH-7777)
Previously proposed denomination : Not applicable
Name of parental material : NCGP-707 x NC-47.
Source of parental material : Own germplasm
Name of Initial Varieties : NC 47 (2009/16)

Variety description:

A. Group characteristic		**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)		Normal
Flower: Petal colour (Characteristic 15)		Cream
Flower: Pollen colour (Characteristic 19)		Cream
Boll: Shape (longitudinal section) (Characteristic 23)		Round
Fibre: Length (2.5% span length) (mm) (Characteristic 33)		Medium Long
B. Distinct characteristic: (Trait of derivation)		NC-47 (GMS) having GMS
D. Date of commercialization of the variety		---
E. Agronomic and commercial attributes		
S. No.	**Agronomic attributes**	**Details**
1	Growth habit (Determinate/Indeterminate)	Spreading (>60cm) and indeterminate
2	Days to flowering/Anthesis (Average)	Medium (50-60 days)

<table>
<tr><td>3</td><td>Days to physiological maturity (Average)</td><td>160-175 days</td></tr>
<tr><td>4</td><td>Seed rate per ha</td><td>2-3 kg/ac</td></tr>
<tr><td>5</td><td>Recommended Nutrition/ha schedule to attain potential yield and time of application:
Organic (per ha)
Inorganic (per ha)
Other fertilizers (per ha)</td><td>Fertilizer management: FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing.

Fertilizer recommendation (kg/ha)

<table>
<tr><td></td><td colspan="3">Irrigated</td><td colspan="3">Rainfed</td></tr>
<tr><td></td><td>N</td><td>P</td><td>K</td><td>N</td><td>P</td><td>K</td></tr>
<tr><td>Basal dose (at sowing)</td><td>50</td><td>20</td><td>20</td><td>25</td><td>25</td><td>25</td></tr>
<tr><td>1st Top dressing (25 DAS)*</td><td>25</td><td>15</td><td>15</td><td>25</td><td>-</td><td>-</td></tr>
<tr><td>Total Requirement</td><td>75</td><td>35</td><td>35</td><td>50</td><td>25</td><td>25</td></tr>
</table>
* DAS – Days After Sowing

Micronutrients:

Spray GA Leader @ 500 g/ac at 40 days, 750g/ac at 70 days and 1000g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac</td></tr>
<tr><td>6</td><td>Spacing (cm) requirement to attain potential yield
Row to row
Plant to plant</td><td rowspan="2">Row to row and Plant to plant spacing may be followed based on soil texture, fertility status, irrigation availability, drip irrigation facility, crop rotation etc.
Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 90 x 60 cm or 90 x 45 cm
Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
Andhra Pradesh and Telangana – Heavy soils – 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm or 75 x 30
Karnataka – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
Tamilnadu and Orissa – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
Optimum plant population should be maintained by gap filling as minimum standard for germination is 75 % under the seeds Act, 1966</td></tr>
<tr><td>7</td><td>Soil requirements to attain the potential yield</td></tr>
</table>

		and rules thereof .
8	Plant protection measures to attain the potential yield	**Plant Protection:** Protect crop against sucking pests i.e Aphids and Jassids with Clothianidin @15 to 20 g/ac, Buprofezin @120 to 160 ml/ac, Acetamiprid @20-40 g/ac or Imidachloprid @50-100 ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam @40-50 g/ac or Fipronil @600-800 ml/ac, flonicamide @60 ml/ac. To control white flies, spray Difenthiuron @250 g/ac, for control of mealy bugs, spray Profenophos or Quinolphos @400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos @600 to 800 ml/ac, Chlorpyriphos @600 ml/ac, thiodcarb @800 g/ac, profenophos @600 ml/ac, cypermethrin @240 ml/ac, chlorantraniliprole 18.5% SC @60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80 to 100 ml/ac, Spinosad @100 ml/ac, Emamectin benzoate 80 ml /ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention/control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.

10	Number of irrigations required to attain potential yield	**Water Management:** On black soils: 5-6 irrigations are commonly required at the interval of 20 days. On red/light/ sandy loam soils with low water retention capacity: 8-10 irrigations may be required at an interval of 15 days.
11	The best growing season to attain the potential yield (zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/climatic zone of india in which the variety hybrid trials were conducted	South and Central zone
13	Intercultural operations (including training, prunning & nipping	**Weed Management:** Upto 60 days, fields should be weed free. Three to four hoeing at 15 days interval after 30 days of sowing helps in keeping the plot weed free as well as for retention of soil moisture. Under rainfed condition, hand weeding/ hoeing helps in keeping the plot free from weeds. Pendimethalin @1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when interculture or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
	Commercial attributes	
1	Yield of Kapas/ha (Average)	6-8 q/ac in south and central zone under irrigated condition and 4-6 q/ac in south and central zone under rainfed condition
2	Yield of Lint/ha (Average)	2.5-3.0 q/ac in south and central zone under irrigated condition and 1.5-2.3 q/ac in south and central zone under rainfed condition
3	Ginning%	Very high (>37%)
4	Fibre Traits:	
5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (25.0-27.0 mm)
	c) Strength (8/tex)	Strong (21.0-24.0 g/tex)
	d) Fineness (Micronaire Value)	Medium (4.0-4.9)
	e) Uniformity (%)	Excellent (>47%)
	f) Maturity (%)	Very good (>81%)
	Plant Height (cm) Average	Medium Tall (91-120)
6	Reaction against major diseases and	Moderately susceptible to jassids and moderate

	pests	tolerance to whiteflies

30. Application No. | ED4 | GH147 | 8 | 479 | filed on 03.11.2009 by **Nuziveedu Seeds Ltd, NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034** for EDV (Essential Derived Variety) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **Bunny Bt (NCS 145 Bt)** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : Bunny Bt (NCS 145 Bt)
Applicant : Nuziveedu Seeds Ltd**.**
Address of the applicant : NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034
Nationality of applicant : Indian
Application details
a. Number : | ED4 | GH147 | 8 | 479 |
b. Date of receipt : 03.11.2009
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : Bunny Bt (NCS 145 Bt)
Type of variety : EDV
Classification of variety : Transgenic & Hybrid
Previously proposed denomination : Not applicable
Name of parental material : NC-71Bt x NC-99.
Source of parental material : Own germplasm
Name of Initial Varieties : NCS-145 BUNNY (2008/410)

Variety description:

A. Group Characteristic	**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (Normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Yellow
Boll: Shape (longitudinal section) (Characteristic 23)	Round
Fibre: Length (2.5% span length) (mm) (Characteristic 33)	Long
B. Distinct characteristics of candidate variety: (Trait of derivation)	Insertion of *Cry1Ac* gene (Mon 531 Event) into Bunny Bt (NCS 145 Bt) and it has resistance to

<table>
<tr><td colspan="2"></td><td>bollworm.</td></tr>
<tr><td colspan="2">D. Date of commercialization of the variety</td><td>28.05.2005</td></tr>
<tr><td colspan="3">E. Agronomic and commercial attributes</td></tr>
<tr><td>S. No.</td><td>Agronomic attributes</td><td>Details</td></tr>
<tr><td>1</td><td>Growth habit (Determinate/Indeterminate)</td><td>Semi spreading and indeterminate</td></tr>
<tr><td>2</td><td>Days to flowering/Anthesis (Average)</td><td>Early (<50 days)</td></tr>
<tr><td>3</td><td>Days to physiological maturity (Average)</td><td>150-160 days</td></tr>
<tr><td>4</td><td>Seed rate per acre</td><td>750 g – 1.0 kg</td></tr>
<tr><td rowspan="4">5</td><td>Recommended nutrition/ha schedule to attain potential yield and time of application:</td><td rowspan="4">Fertilizer management: To apply FYM or compost @ 12.5-25 tons/ac three to four weeks before final harrowing and sowing.

Fertilizer recommendation (kg/ha)

<table>
<tr><td></td><td colspan="3">Irrigated</td><td colspan="3">Rainfed</td></tr>
<tr><td></td><td>N</td><td>P</td><td>K</td><td>N</td><td>P</td><td>K</td></tr>
<tr><td>Basal dose (at sowing)</td><td>60</td><td>50</td><td>25</td><td>60</td><td>40</td><td>20</td></tr>
<tr><td>1st Top dressing (25 DAS)*</td><td>30</td><td>25</td><td>25</td><td>30</td><td>20</td><td>20</td></tr>
<tr><td>2nd Top dressing (50 DAS)*</td><td>30</td><td>-</td><td>25</td><td>30</td><td>-</td><td>20</td></tr>
<tr><td>3rd Top dressing (75 DAS)*</td><td>30</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Total Requirement</td><td>150</td><td>75</td><td>75</td><td>120</td><td>60</td><td>60</td></tr>
</table>
* DAS – Days After Sowing

Micronutrients:

Spray GA Leader @ 500 g/ac at 40 days,750 g/ac at 70 days and 1000g/ha at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac</td></tr>
<tr><td>Organic (per ha)</td></tr>
<tr><td>Inorganic (per ha)</td></tr>
<tr><td>Other fertilizers (per ha)</td></tr>
<tr><td>6</td><td>Spacing (cm) requirement to attain potential yield</td><td>Deep Black soils of Gujrat , Madhya Pradesh and Khandesh region of Maharashtra : 5 x 1.5 ft or 4 x 2 ft</td></tr>
</table>

	Row to Row Plant to Plant	Black Cotton soils of Vidarbha and Marathwada (Maharashtra) : 4 x 1.5 ft or 3 x 2 ft or 3.5 x 1.5 ft Andhra Pradesh and Telangana – Heavy soils - 3.5 x 2 ft , Medium soils – 3.5 x 1.5 ft or 3 x 1.5 ft Karnataka – Heavy soils 3 x 3 ft or 4 x 2 ft, Medium soils 3 x 2 ft
7	Soil requirements to attain the potential yield	Tamilnadu and Orissa – Heavy soils 3.5 x 2.5 ft, Medium soils – 3 x 2 ft
8	Plant protection measures to attain the potential yield	**Plant Protection:** To protect crop against sucking pests i.e. Aphids and Jassids with Clothianidin @15 to 20 g/ac, Buprofezin @120 to 160 ml/ac, Acetamiprid @20-40 g/ac or Imidachloprid @50-100 ml/ac or flonicamid @60 ml/ac. To control Thrips, spray Thiomethoxam @40 -50 g/ac or Fipronil @600-800 ml/ac, flonicamide @60 ml/ac. To control white flies, spray Difenthiuron @250 g/ac, For control of mealy bugs, spray Profenophos or Quinolphos @400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos @600 to 800 ml/ac, Chlorpyriphos @600 ml/ac, thiodcarb @800 g/ac, profenophos @600 ml/ac, cypermethrin@ 240 ml/ac, chlorantraniliprole 18.5% SC @60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) @80 to 100 ml/ac, Spinosad @100 ml/ac, Emamectin benzoate @80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention/control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.

10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/ sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/climatic zone of india in wich the variety hybrid trials were conducted	South and Central zone
13	Intercultural operations (including training, prunning & nipping	**Weed Management:** Three to four hoeing at 15 days interval after 30 days of sowing. Pendimethalin @1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when inter-cultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
14	Any other relevant information specific to the variety/ hybrid	
	Commercial attributes	
1	Yield of Kapas/ac (Average)	12-14 q/ac in south and central zone under irrigated condition and 9-12 q/ac in south and central zone under rainfed condition
2	Yield of Lint/ac (Average)	3.8-4.6 q/ac in south and central zone under irrigated condition and 3.0-3.8 q/ac in south and central zone under rainfed condition
3	Ginning(%)	Medium (33-34)
4	Fibre Traits:	
5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (27.5-32.0 mm)
	c) Strength (g/tex)	Strong 25.0- 28.0 g/tex
	d) Fineness (Micronaire Value)	Mic: Fine 3.0 - 3.9
	e) Uniformity (%)	Excellent (>47%)
	f) Maturity (%)	Good (66-80%)
	Plant Height (cm) Average	Tall (121-150 cm)
6	Reaction against major diseases and pests	Tolerant to jassids, very good tolerance to bacterial blight and grey mildew.
7	Reaction to major abotic stresses like drought, heat, salinity *etc.*	It can withstand water stress conditions as well as excessive rains.

31. Application No. | ED45 | GH164 | 13 | 447 | filed on 08.08.2013 by **Nuziveedu Seeds Ltd. Survey No. 69, Gundlapochampally (Vill. & Panchayat), Medchal-Mandal, Rangareddy- Dist-501401** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **NC-1207 BG-II** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : NC-1207 BG-II
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : Survey No. 69, Gundlapochampally (Vill. & Panchayat), Medchal-Mandal, Rangareddy- Dist-501401
Nationality of applicant : Indian
Application details
a. Number : | ED45 | GH164 | 13 | 447 |
b. Date of receipt : 08.08.2013
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : NC-1207 BG-II
Type of variety : EDV
Classification of variety : Transgenic (the candidate variety is exploited for the development of hybrid NCS-589 BG-II)
Previously proposed
Denomination : Not applicable
Name of parental material : AC-1207 x NC-71Bt2.
Source of parental material : Own germplasm
Name of Initial Varieties : AC-1207, (2012/270)

Variety description:

A. Group characteristic	**Remarks (measured values/ example variety *etc*.)**
Leaf: Shape (Characteristic 8)	Palmate (normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Cream
Boll: Shape (longitudinal section) (Characteristic 23)	Round
Fibre: Length (2.5% span length) (mm) (Characteristic 33)	Extra Long
B. Distinct characteristics of candidate variety: (Trait of derivation)	Insertion of *Cry 1Ac* and *Cry 2Ab* genes (Mon 15985 Event) into NC-1207 BG-II and it has resistance to bollworm

<table>
<tr><td colspan="2">D. Date of reported commercialization of the variety</td><td>--</td></tr>
<tr><td colspan="3">E. Agronomic and commercial attributes</td></tr>
<tr><td>S.No.</td><td>Agronomic attributes</td><td>Details</td></tr>
<tr><td>1</td><td>Growth habit (Determinate/Indeterminate)</td><td>Semi Spreading (31-60 cm) and indeterminate</td></tr>
<tr><td>2</td><td>Days to flowering/Anthesis (Average)</td><td>Medium (50-60 days)</td></tr>
<tr><td>3</td><td>Days to physiological maturity (Average)</td><td>150-165 days</td></tr>
<tr><td>4</td><td>Seed rate per ha</td><td>2-3 kg/ac</td></tr>
<tr><td rowspan="4">5</td><td>Recommended nutrition/ha schedule to attain potential yield and time of application:</td><td rowspan="4">Fertilizer management: To apply FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing.

Fertilizer recommendation (kg/ha)

<table><tr><td></td><td colspan="3">Irrigated</td><td colspan="3">Rain fed</td></tr><tr><td></td><td>N</td><td>P</td><td>K</td><td>N</td><td>P</td><td>K</td></tr><tr><td>Basal dose (at sowing)</td><td>50</td><td>20</td><td>20</td><td>25</td><td>25</td><td>25</td></tr><tr><td>1st Top dressing (25 DAS)*</td><td>25</td><td>15</td><td>15</td><td>25</td><td>-</td><td>-</td></tr><tr><td>Total Requirement</td><td>75</td><td>35</td><td>35</td><td>50</td><td>25</td><td>25</td></tr></table>* DAS – Days After Sowing

Micronutrients:

Spray GA Leader @ 500 g/ac at 40 days,750 g/ac at 70 days and 1000 g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac</td></tr>
<tr><td>Organic (per ha)</td></tr>
<tr><td>Inorganic (per ha)</td></tr>
<tr><td>Other fertilizers (per ha)</td></tr>
<tr><td rowspan="3">6</td><td>Spacing (cm) requirement to attain potential yield</td><td rowspan="3">Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 90 x 60 cm or 90 x 45 cm
Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
Andhra Pradesh and Telangana – Heavy soils – 90 x 60 cm or 90 x 45 cm , Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm or 75 x 30 cm
Karnataka – Heavy soils 90 x 60 cm or 90 x 45 cm,</td></tr>
<tr><td>Row to row</td></tr>
<tr><td>Plant to plant</td></tr>
</table>

7	Soil requirements to attain the potential yield	Medium soils 90 x 45cm or 90 x 60 cm or 90 x 30 cm Tamilnadu and Orissa – Heavy soils 90x60cm or 90 x 45 cm , Medium soils – 90 x 45cm or 90 x 60 cm or 90 x 30 cm
8	Plant protection measures to attain the potential yield	**Plant Protection:** To protect crop against sucking pests i.e Aphids and Jassids with Clothianidin 15-20 g/ac, Buprofezin 120-160 ml/ac, Acetamiprid 20-40 g/ac or Imidachloprid 50-100 ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam 40-50 g/ac or Fipronil 600-800 ml/ac, flonicamide 60 ml/ac. To control white flies, spray Difenthiuron 250 g/ac, For control of mealy bugs, spray Profenophos or Quinolphos 400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos 600-800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention / control of diseases like *Grey mildew*, *Alternaria*, *Cercospora leaf spot*, *Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/ sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (Zonewise)	*Kharif* in South zone and Central zone

12	Name the cropping/climatic zone of india in wich the variety hybrid trials were conducted	South and Central zone
13	intercultural operations (including training, prunning & nipping	**Weed Management:** Three to four inter cultivations (hoeing) at 15 days interval after 30 days of sowing. Pendimethalin @1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
14	Any other relevant information specific to the variety/ hybrid	-
	Commercial attributes	
1	Yield of Kapas/ acre (Average)	6-8 q/ac in south and central zone under irrigated condition and 4-6 q/ac in south and central zone under rainfed condition
2	Yield of Lint/ acre (Average)	2.0-2.6 q/ac in south and central zone under irrigated condition and 1.5-2.0 q/ac in south and central zone under rainfed condition
3	Ginning(%)	Medium (33-34)
4	Fibre Traits:	
5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (27.5 - 32.0 mm)
	c) Strength (8/tex)	Strong (21.0 - 24.0 g/tex)
	d) Fineness (Micronaire Value)	Very fine (<3.0)
	e) Uniformity (%)	Excellent (>47%)
	f) Maturity (%)	Good (66-80%)
6	Plant Height (cm) Average	Medium Tall (91-120 cm)
7	Reaction against major diseases and pests	Moderately susceptible to jassids and moderate tolerance to thrips

32. Application No. | ED8 | GH154 | 8 | 489 | filed on 11.11.2008 by **Nuziveedu Seeds Ltd., NSL ICON, No. 8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **NCS-913 Bt** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : NCS-913 Bt
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034
Nationality of applicant : Indian
Application details
a. Number : ED8 | GH154 | 8 | 489
b. Date of receipt : 11.11.2008
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : NCS-913 Bt
Type of variety : EDV
Classification of variety : Transgenic & Hybrid
Previously proposed denomination : Not applicable
Name of parental material : NC 126 Bt x NC 1050 Bt.
Source of parental material : Own germplasm.
Name of initial varieties : NCS 913, (2009/108)

Variety description:

A. Group characteristic	**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Cream
Boll: Shape (longitudinal section) (Characteristic 23)	Ovate
Fibre: Length (2.5% span length) (mm) (Characteristic 33)	Medium Long
B. Distinct characteristic: (Trait of derivation)	Insertion of *Cry1Ac* gene (Mon 531 Event) into NCS-913 Bt and it has resistance to bollworm
D. Date of commercialization of the variety	25.04.2006
E. Agronomic and commercial attributes	--

S.No.	**Agronomic attributes**	**Details**
1	Growth habit (Determinate/Indeterminate)	Semi spreading and indeterminate
2	Days to flowering/anthesis (average)	Early (<50days)
3	Days to physiological maturity	150-165 days

<table>
<tr><td></td><td>(Average)</td><td></td></tr>
<tr><td>4</td><td>Seed rate per ha</td><td>750g – 1.0 kg</td></tr>
<tr><td>5</td><td>Recommended nutrition/ha schedule to attain potential yield and time of application:
Organic (Per ha)
Inorganic (Per ha)
Other fertilizers (Per Ha)</td><td>Fertilizer management: To apply FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing.

Fertilizer recommendation (kg/ha)

<table>
<tr><td></td><td colspan="3">Irrigated</td><td colspan="3">Rainfed</td></tr>
<tr><td></td><td>N</td><td>P</td><td>K</td><td>N</td><td>P</td><td>K</td></tr>
<tr><td>Basal dose (at sowing)</td><td>60</td><td>50</td><td>25</td><td>60</td><td>40</td><td>20</td></tr>
<tr><td>1st Top dressing (25 DAS)*</td><td>30</td><td>25</td><td>25</td><td>30</td><td>20</td><td>20</td></tr>
<tr><td>2nd Top dressing (50 DAS)*</td><td>30</td><td>-</td><td>25</td><td>30</td><td>-</td><td>20</td></tr>
<tr><td>3rd Top dressing (75 DAS)*</td><td>30</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Total Requirement</td><td>150</td><td>75</td><td>75</td><td>120</td><td>60</td><td>60</td></tr>
</table>
* DAS – Days After Sowing

Micronutrients:

Spray GA Leader @ 500 g/ac at 40 days,750 g/ac at 70 days and 1000 g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac</td></tr>
<tr><td>6</td><td>Spacing (cm) requirement to attain potential yield
Row to row
Plant to plant</td><td rowspan="2">Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 5 x 1.5 ft or 4 x 2 ft.
Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 4 x 1.5 ft or 3 x 2 ft or 3.5 x 1.5 ft.
Andhra Pradesh and Telangana – Heavy soils - 3.5 x 2 ft, Medium soils – 3.5 x 1.5 ft or 3 x 1.5 ft.
Karnataka – Heavy soils 3 x 3 ft or 4 x 2 ft, Medium soils 3 x 2 ft.
Tamilnadu and Orissa – Heavy soils 3.5 x 2.5 ft, Medium soils – 3 x 2 ft.
Optimum plant population should be maintained by gap filling as minimum standard for germination is 75% under the seeds Act, 1966 and rules thereof.</td></tr>
<tr><td>7</td><td>Soil requirements to attain the potential yield</td></tr>
<tr><td>8</td><td>Plant protection measures to attain</td><td>Plant Protection: To protect crop against</td></tr>
</table>

	the potential yield	sucking pests i.e Aphids and Jassids with Clothianidin 15-20 g/ac, Buprofezin 120-160 ml/ac, Acetamiprid 20-40 g/ac or Imidachloprid 50-100 ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam 40-50 g/ac or Fipronil 600-800 ml/ac, flonicamide 60 ml/ac. To control white flies, spray Difenthiuron 250 g/ac, For control of mealy bugs, spray Profenophos or Quinolphos 400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos 600-800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention/control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/climatic zone of india in wich the variety Hybrid trials were conducted	South and Central zone

13	Intercultural operations (including training, prunning & nipping	**Weed Management:** Three to four inter cultivations (hoeing) at 15 days interval after 30 days of sowing. Pendimethalin @ 1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
	Commercial attributes	
1	Yield of Kapas/ha (Average)	9-11 q/ac in south and central zone under irrigated condition and 6-8 q/ac in south and central zone under rainfed condition
2	Yield of Lint/ha (Average)	3-4 q/ac in south and central zone under irrigated condition and 2.0-2.5 q/ac in south and central zone under rainfed condition
3	Ginning%	Very high (>37)
4	Fibre Traits:	
5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (27.5-32.0 mm)
	c) Strength (g/tex)	Medium 21.0- 24.0 g/tex
	d) Fineness (Micronaire Value)	Mic: Fine 3.0 - 3.9
	e) Uniformity (%)	Excellent (>47%)
	f) Maturity (%)	Very good (>81%)
	Plant Height (cm) Average	Medium Tall (91-120 cm)

33. Application No. | ED3 | GH153 | 8 | 487 | filed on **10.11.2008** by **Nuziveedu Seeds Ltd., NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **Mallika Bt (NCS 207 Bt)** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : Mallika Bt (NCS 207 Bt)
Applicant : Nuziveedu Seeds Ltd.

Address of the applicant : NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034

Nationality of applicant : Indian

Application details

a. Number : ED3 | GH153 | 8 | 487

b. Date of receipt : 10.11.2008

c. Date of acceptance : 28.11.2018

Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)

Denomination : Mallika Bt (NCS 207 Bt)

Type of variety : EDV

Classification of variety : Transgenic & Hybrid

Previously proposed

Denomination : Not applicable

Name of parental material : NC 108 Bt x NC 102.

Source of parental material : Own germplasm

Name of Initial varieties : Mallika-NCS 207, (2008/411)

Variety description:

A. Group characteristic	**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Yellow
Boll: Shape (longitudinal section) (Characteristic 23)	Ovate
Fibre: Length (2.5% span length) (mm) (Characteristic 33)	Extra Long
B. Distinct characteristics of candidate variety: (Trait of derivation)	Insertion of *Cry1Ac* gene (Mon 531 Event) into Mallika Bt (NCS 207 Bt) and it has resistance to bollworm.
D. Date of commercialization of the variety	05.06.2005
E. Agronomic and commercial attributes	

S. No.	**Agronomic attributes**	**Details**
1	Growth habit (Determinate/Indeterminate)	Semi spreading and indeterminate
2	Days to flowering/anthesis (Average)	Medium (50-60 days)
3	Days to physiological maturity (Average)	160-170 days
4	Seed rate per ha	750g – 1.0 kg

<table>
<tr>
<td>5</td>
<td>Recommended nutrition/ha schedule to attain potential yield and time of application:

Organic (per ha)
Inorganic (per ha)
Other fertilizers (per ha)</td>
<td>Fertilizer management: To always apply FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing.

Fertilizer recommendation (kg/ha)

<table>
<tr><td></td><td colspan="3">Irrigated</td><td colspan="3">Rainfed</td></tr>
<tr><td></td><td>N</td><td>P</td><td>K</td><td>N</td><td>P</td><td>K</td></tr>
<tr><td>Basal dose (at sowing)</td><td>60</td><td>50</td><td>25</td><td>60</td><td>40</td><td>20</td></tr>
<tr><td>1st Top dressing (25 DAS)*</td><td>30</td><td>25</td><td>25</td><td>30</td><td>20</td><td>20</td></tr>
<tr><td>2nd Top dressing (50 DAS)*</td><td>30</td><td>-</td><td>25</td><td>30</td><td>-</td><td>20</td></tr>
<tr><td>3rd Top dressing (75 DAS)*</td><td>30</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Total Requirement</td><td>150</td><td>75</td><td>75</td><td>120</td><td>60</td><td>60</td></tr>
</table>
* DAS – Days After Sowing

Micronutrients:

Spray GA Leader @ 500 g/ac at 40 days,750 g/ac at 70 days and 1000 g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac.</td>
</tr>
<tr>
<td>6</td>
<td>Spacing (cm) requirement to attain potential yield

Row to row

Plant to plant</td>
<td rowspan="2">Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 5 x 1.5 ft or 4 x 2 ft.
Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 4 x 1.5 ft or 3 x 2 ft or 3.5 x 1.5 ft.
Andhra Pradesh and Telangana – Heavy soils - 3.5 x 2 ft Medium soils – 3.5 x 1.5 ft or 3 x 1.5 ft
Karnataka – Heavy soils 3 x 3 ft or 4 x 2 ft Medium soils 3 x 2 ft.
Tamilnadu and Orissa – Heavy soils 3.5 x 2.5 ft, Medium soils – 3 x 2 ft.</td>
</tr>
<tr>
<td>7</td>
<td>Soil requirements to attain the potential yield</td>
</tr>
<tr>
<td>8</td>
<td>Plant protection measures to attain the potential yield</td>
<td>Plant Protection: To protect crop against sucking pests i.e Aphids and Jassids with Clothianidin 15-20 g/ac, Buprofezin 120-160</td>
</tr>
</table>

		ml/ac, Acetamiprid 20-40 g/ac or Imidachloprid 50-100 ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam 40-50 g/ac or Fipronil 600-800 ml/ac, flonicamide 60ml/ha. To control white flies, spray Difenthiuron 250 g/ac, For control of mealy bugs, spray Profenophos or Quinolphos 400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos 600 to 800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention/control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/Climatic Zone of India in wich the variety Hybrid trials were conducted	South and Central zone
13	Intercultural operations (Including training, prunning & nipping	**Weed Management:** Three to four inter cultivations (hoeing) at 15 days interval after 30

		days of sowing. Pendimethalin @ 1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
	Commercial attributes	
1	Yield of kapas/ha (Average)	12-14 q/ac in south and central zone under irrigated condition and 8-10 q/ac in south and central zone under rainfed condition
2	Yield of lint/ha (Average)	4-5 q/ac in south and central zone under irrigated condition and 2.8-3.5 q/ac in south and central zone under rainfed condition
3	Ginning%	High (35-36)
4	Fibre Traits:	
5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (27.5-32.0 mm)
	c) Strength (g/tex)	Medium 21.0- 24.0 g/tex
	d) Fineness (Micronaire Value)	Mic: Fine 3.0 - 3.9
	e) Uniformity (%)	Excellent (>47%)
	f) Maturity (%)	Very good (>81%)
	Plant Height (cm) Average	Very tall (>150 cm)
6	Reaction against major diseases and pests	Moderately tolerant to bacterial blight, grey mildew and alternaria. Slightly susceptible to jassids in early stages of growth. Moderately tolerant to whiteflies.
7	Reaction to major abotic stresses like drought, heat, salinity *etc*.	It can withstand excess rainfall

34. Application No. ED5 | GH138 | 9 | 256 filed on 11.05.2009 by **Nuziveedu Seeds Ltd., NSL ICON, No. 8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **NC-126 Bt** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : NC-126 Bt
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034
Nationality of applicant : Indian
Application details
a. Number : ED5 | GH138 | 9 | 256
b. Date of receipt : 11.05.2009
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : NC-126 Bt
Type of variety : EDV
Classification of variety : Transgenic & Other (Inbred parent line)
Previously proposed denomination : Not applicable
Name of parental material : NC-126 x NC-71 Bt.
Source of parental material : Own Germplasm
Name of initial varieties : NC-126, (2009/178)

Variety description:

A. Group characteristic		**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)		Palmate (normal)
Flower: Petal colour (Characteristic 15)		Cream
Flower: Pollen colour (Characteristic 19)		Cream
Boll: Shape (longitudinal section) (Characteristic 23)		Round
Fibre: Length (2.5% span length) (mm) (Characteristic 33)		Long
B. Distinct characteristic: (Trait of derivation)		Insertion of *Cry1Ac* gene (Mon 531 Event) into NC-126 Bt and it has resistance to bollworms
D. Date of commercialization of the variety		25.04.2006
E. Agronomic and commercial attributes		
S.No.	**Agronomic attributes**	**Details**
1	Growth habit (Determinate/Indeterminate)	Semi Spreading (31-60 cm) and indeterminate
2	Days to flowering/anthesis (Average)	Medium (50-60 days)
3	Days to physiological maturity (Average)	150-165 days
4	Seed rate per ha	2-3 kg/ac
5	Recommended nutrition/ha schedule to attain potential yield and time of application:	**Fertilizer management:** To apply FYM or compost @ 5-10 tons/ac three to four weeks

<table>
<tr><td></td><td>Organic (per ha)
Inorganic (per ha)
Other fertilizers (per ha)</td><td>before final harrowing and sowing.
Fertilizer recommendation (kg/ha)
<table>
<tr><td></td><td colspan="3">Irrigated</td><td colspan="3">Rainfed</td></tr>
<tr><td></td><td>N</td><td>P</td><td>K</td><td>N</td><td>P</td><td>K</td></tr>
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<tr><td>3rd Top dressing (75 DAS)*</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Total Requirement</td><td>75</td><td>35</td><td>35</td><td>50</td><td>25</td><td>25</td></tr>
</table>
* DAS – Days After Sowing
Micronutrients:
Spray GA Leader @ 500 g/ac at 40 days, 750 g/ac at 70 days and 1000 g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac</td></tr>
<tr><td>6</td><td>Spacing (cm) requirement to attain potential yield
Row to row
Plant to plant</td><td rowspan="2">Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 90 x 60 cm or 90 x 45 cm
Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
Andhra Pradesh and Telangana – Heavy soils – 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm or 75 x 30 cm
Karnataka – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
Tamilnadu and Orissa – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm</td></tr>
<tr><td>7</td><td>Soil requirements to attain the potential yield</td></tr>
<tr><td>8</td><td>Plant protection measures to attain the potential yield</td><td>Plant Protection: To protect crop against sucking pests i.e. Aphids and Jassids with Clothianidin 15-20 g/ac, Buprofezin 120-160 ml/ac, Acetamiprid 20-40 g/ac or Imidachloprid 50-100 ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam 40-50 g/ac or Fipronil 600-800 ml/ac, flonicamide 60 ml/ac. To control white flies, spray Difenthiuron 250 g/ac, For control of mealy bugs, spray Profenophos or Quinolphos 400-600 ml/ac. If infestation of</td></tr>
</table>

		bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos 600 to 800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac. (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention/control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/ sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (Zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/climatic zone of india in wich the variety hybrid trials were conducted	South and Central zone
13	Intercultural operations (including training, prunning & nipping	**Weed Management:** Three to four inter cultivations (hoeing) at 15 days interval after 30 days of sowing. Pendimethalin @ 1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due

		to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
	Commercial attributes	
1	Yield of Kapas/ acre (Average)	6-8 q/ac in south and central zone under irrigated condition and 4-6 q/ac in south and central zone under rainfed condition
2	Yield of Lint/ acre (Average)	2.5-3.0 q/ac in south and central zone under irrigated condition and 1.5-2.0 q/ac in south and central zone under rainfed condition
3	No. of the fruits/plant (Average)	
4	Ginning%	High (35-36)
5	Fibre Traits:	
	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (27.5 - 32.0 mm)
	c) Strength (8/tex)	Strong (25.0 - 28.0 g/tex)
	d) Fineness (Micronaire Value)	Medium (4.0-4.9)
	e) Uniformity (%)	Excellent (>47%)
	f) Maturity (%)	Very good (>81%)
6	Plant Height (cm) Average	Medium Tall (91-120 cm)
7	Reaction against major diseases and pests	Moderately susceptible to jassids and moderate tolerance to whiteflies
8	Reaction to major abotic stresses like drought, heat, salinity *etc.*	Drought tolerant

35. Application No. | ED4 | GH132 | 9 | 250 | filed on 11.05.2009 by **Nuziveedu Seeds Ltd., NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **NC-113 Bt** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : NC-113 Bt
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : NSL ICON, No. 8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034
Nationality of applicant : Indian
Application details

a. Number : ED4 | GH132 | 9 | 250

b. Date of receipt : 11.05.2009

c. Date of acceptance : 28.11.2018

Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)

Denomination : NC-113 Bt

Type of variety : EDV

Classification of variety : Transgenic (parent line) (NC-113Bt is one of the parental line of hybrid NCS-955 Bt and it is applied for PPV&FRA registration REG/2008/480)

Previously proposed denomination : Not applicable

Name of parental material : NC-113 x NC-71Bt

Source of parental material **:** Own germplasm

Name of initial varieties **:** NC-113, (2009/177)

Variety description:

A. Group characteristic	**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Cream
Boll: Shape (longitudinal section) (Characteristic 23)	Round
Fibre: Length (2.5% span length) (mm) (Characteristic 33)	Long
B. Distinct characteristics of candidate variety: (Trait of derivation)	Insertion of *Cry1Ac* gene (Mon 531 Event) into NC-113 Bt and it has resistance to bollworm.
D. Date of reported commercialization of the variety	13.06.2007

E. Agronomic and commercial attributes

S.No.	**Agronomic attributes**	**Details**
1	Growth habit (Determinate/Indeterminate)	Semi Spreading (31-60cm) and indeterminate
2	Days to flowering/Anthesis (Average)	Medium (50-60 days)
3	Days to physiological maturity (Average)	150-165 days
4	Seed rate per ha	2-3 Kg/Ac
5	Recommended nutrition/ha schedule to attain potential yield and time of application:	**Fertilizer management:** To apply FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing.
	Organic (per ha)	**Fertilizer recommendation (kg/ha)**
	Inorganic (per ha)	
	Other fertilizers (per ha)	

	Irrigated			**Rainfed**		
	N	**P**	**K**	**N**	**P**	**K**

<table>
<tr><td></td><td></td><td>
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</table>
* DAS – Days After Sowing

Micronutrients:

Spray GA Leader @ 500 g/ac at 40 days, 750 g/ac at 70 days and 1000 g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac
</td></tr>
<tr><td>6</td><td>Spacing (cm) requirement to attain potential yield
(Row to row
Plant to plant)</td><td>Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 90 x 60 cm or 90 x 45 cm
Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
Andhra Pradesh and Telangana – Heavy soils – 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm or 75 x 30 cm
Karnataka – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
Tamilnadu and Orissa – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm</td></tr>
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</table>

		bollworms with chemicals such as, quinolphos 600-800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention/control of diseases like Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight *etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/ sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (Zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/climatic zone of India in wich the variety Hybrid trials were conducted	South and Central zone
13	Intercultural operations (Including training, prunning & nipping	**Weed Management:** Three to four inter cultivations (hoeing) at 15 days interval after 30 days of sowing. Pendimethalin @ 1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.

14	Any other relevant information specific to the variety/ hybrid	
	Commercial attributes	
1	Yield of kapas/ac (Average)	5-7 q/ac in south and central zone under irrigated condition and 3-5 q/ac in south and central zone under rainfed condition
	Yield of lint/ac (Average)	1.8-2.5 q/ac in south and central zone under irrigated condition and 1.0-1.8 q/ac in south and central zone under rainfed condition
2	Ginning%	High (35-36)
3	Fibre Traits:	
	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (27.5-32.0 mm)
	c) Strength (8/tex)	Strong (25.0-28.0 g/tex)
	d) Fineness (Micronaire Value)	Fine (3.0-3.9)
	e) Uniformity (%)	Excellent (> 47%)
	f) Maturity (%)	Very good (> 81%)
4	Plant Height (cm) Average	Tall (121-150 cm)
5	Reaction against major diseases and pests	Susceptible to jassids and moderate tolerance to whiteflies

36. Application No. | ED53 | GH172 | 13 | 455 | filed on 12.08.2013 by **Nuziveedu Seeds Ltd., NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **NC-2153 BG-II** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : NC-2153 BG-II
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034
Nationality of applicant : Indian
Application details
a. Number : | ED53 | GH172 | 13 | 455 |
b. Date of receipt : 12.08.2013

c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : NC-2153 BG-II
Type of variety : EDV
Classification of variety : Transgenic and others (Parental Line) (Candidate variety is exploited for the development of hybrid NCS-2123BG-II)
Previously proposed denomination : Not applicable
Name of parental material : NC-2153 x NC-71 Bt
Source of parental material : Own germplasm
Name of initial varieties : NC-2153, (2009/230)

Variety description:

A. Group characteristic		**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)		Palmate (normal)
Flower: Petal colour (Characteristic 15)		Cream
Flower: Pollen colour (Characteristic 19)		Cream
Boll: Shape (longitudinal section) (Characteristic 23)		Round
Fibre: Length (2.5% span length) (mm) (Characteristic 33)		Medium Long
B. Distinct characteristics of candidate variety: (Trait of derivation)		Insertion of *Cry1Ac* and *Cry2Ab* genes (Event Mon 15985) into NC-2153 BG-II and it has resistance to bollworm.
D. Date of commercialization of the variety		--
E. Agronomic and commercial attributes		
S.No.	**Agronomic Attributes**	**Details**
1	Growth habit (Determinate/Indeterminate)	Compact (< 30 cm) and indeterminate
2	Days to flowering/anthesis (Average)	Medium (50-60 days)
3	Days to physiological maturity (Average)	150-165 days
4	Seed rate per ha	2-3 kg/ac
5	Recommended nutrition/ha schedule to attain potential yield and time of application:	**Fertilizer management:** To apply FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing.
	Organic (per ha)	
	Inorganic (per ha)	**Fertilizer recommendation (kg/ha)**
	Other fertilizers (per ha)	

	Irrigated			**Rainfed**		
	N	**P**	**K**	**N**	**P**	**K**
Basal dose (at sowing)	50	20	20	25	25	25

		<table><tr><td>1st Top dressing (25 DAS)*</td><td>25</td><td>15</td><td>15</td><td>25</td><td>-</td><td>-</td></tr><tr><td>Total Requirement</td><td>75</td><td>35</td><td>35</td><td>50</td><td>25</td><td>25</td></tr></table> * *DAS – Days After Sowing* **Micronutrients:** Spray GA Leader @ 500 g/ac at 40 days, 750 g/ac at 70 days and 1000 g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac
6	Spacing (cm) requirement to attain potential yield Row to row Plant to plant	Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 90 x 60 cm or 90 x 45 cm Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 90 x 45 cm or 90 x 60 cm or 90 x 30 cm Andhra Pradesh and Telangana – Heavy soils – 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm or 75 x 30 cm Karnataka – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils 90 x 45 cm or 90 x 60 cm or 90 x 30 cm Tamilnadu and Orissa – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
7	Soil requirements to attain the potential yield	
8	Plant protection measures to attain the potential yield	**Plant Protection:** To protect crop against sucking pests i.e. Aphids and Jassids with Clothianidin 15-20 g/ac, Buprofezin 120-160 ml/ac, Acetamiprid 20-40 g/ac or Imidachloprid 50-100 ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam 40-50 g/ac or Fipronil 600-800 ml/ac, flonicamide 60 ml/ac. To control white flies, spray Difenthiuron 250 g/ac, For control of mealy bugs, spray Profenophos or Quinolphos 400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos 600-800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying

		after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention / control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/ sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/Climatic Zone of India in wich the variety Hybrid trials were conducted	South and Central zone
13	Intercultural operations (Including Training, Prunning & Nipping	**Weed Management:** Three to four inter cultivations (hoeing) at 15 days interval after 30 days of sowing. Pendimethalin @ 1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
14	Any other relevant information specific to the Variety/ Hybrid	
	Commercial attributes	
1	Yield of kapas/ha (Average)	5-7 q/ac in south and central zone under irrigated condition and 3-5 q/ac in south and central zone under rainfed condition
2	Yield of lint/ha (Average)	1.5-2.0 q/ac in south and central zone under irrigated condition and 1.0-1.5 q/ac in south and central zone under rainfed condition
3	Ginning%	Very low (< 30)
4	Fibre Traits:	

5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Medium long (25.0 - 27.0 mm)
	c) Strength (8/tex)	Strong (21.0 - 24.0 g/tex)
	d) Fineness (Micronaire Value)	Fine (3.0-3.9)
	e) Uniformity (%)	Excellent (>47%)
	f) Maturity (%)	Very good (>81%)
	Plant Height (cm) Average	Medium tall (91-120 cm)
6	Reaction against major diseases and pests	Tolerance to jassids and moderate tolerance to thrips
7	Reaction to major abotic stresses like drought, heat, salinity *etc.*	Drought tolerant

37. Application No. | ED11 | GH93 | 8 | 327 | filed on 07.04.2008 by **JK Agri Genetics Ltd, 1-10-177, 4th Floor, Varun Towers, Begumpet, Hyderabad-500016** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **JK ISHWAR (JKCH 634) Bt** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : JK ISHWAR (JKCH 634) Bt
Applicant : JK Agri Genetics Ltd.
Address of the applicant : 1-10-177, 4th Floor, Varun Towers, Begumpet, Hyderabad-500016
Nationality of applicant : Indian
Application details
a. Number : | ED11 | GH93 | 8 | 327 |
b. Date of receipt : 07.04.2008
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : JK ISHWAR (JKCH 634) Bt
Type of variety : EDV
Classification of variety : Transgenic & Hybrid
Previously proposed
Denomination : Not applicable
Name of parental material : JKC 720 x JKC 745-Bt (syn. JKC725).
Source of parental material : Own germplasm
Name of Initial Varieties : JK ISHWAR (JKCH 634), (2008/336)

Variety description:

A. Group characteristic	**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (normal)

Flower: Petal colour (Characteristic 15)		Yellow
Flower: Pollen colour (Characteristic 19)		Yellow
Boll: Shape (longitudinal section) (Characteristic 23)		Round
Fibre: Length (2.5% span length) (mm) (Characteristic 33)		Long
B. Distinct characteristics of candidate variety: (Trait of derivation)		Insertion of *Cry1Ac* gene (Mon 531 Event) into JK ISHWAR (JKCH 634) Bt and it has resistance to bollworm.
D. Date of commercialization of the variety		----
E. Agronomic and commercial attributes		
S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (Determinate/Indeterminate)	Indeterminate
2.	Days to flowering/Anthesis (average)	55-60
3.	Days to physiological maturity (average)	150-160
4.	Seed rate per ha	1.8 to 2.2 kg
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	Organic manure@ 4 tons/ac
	Inorganic (per ha)	N : P : K Irrigated: 120 : 60 : 60 kg/ha Rainfed: 80 : 40 : 40 kg/ha
	Other fertilizers (Per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row (cm)	120
	Plant to plant (cm)	60
7.	Soil requirements to attain the potential yield	Heavy clay to light sandy soils
8.	Plant protection measures to attain the potential yield (per acre)	**Jassid -** 50 ml Super Confidor (Imidacloprid 30.5% SC), 40 g Admire (Imidacloprid 70% WG) **Thrips -** 400 ml **Regent** (Fipronil 5% SC), 25 g **Jump** (Fipronil 80% WG) **Aphids -** 100 ml **Confidor** (Imidacloprid 20.0 SL), 30 g **Pride** (Acetamiprid 20 SP) **Para wilt -** 350-400 g **Carbendazim** or 350-400 g **COC**
9.	Sowing window requirement to attain potential yield (Zone wise)	15th June to 15th July
10.	Number of irrigations required to attain potential yield	Irrigation should be given at an interval of 20-25 days
11.	The best growing season to attain the potential yield (Zone wise)	*Kharif*
12.	Name the cropping/climatic zone of india in which the varietal/hybrid trials were conducted	Central and South

13.	Intercultural operations (including training, prunning & nipping)	Deep ploughing in earlier stage of the crop whereas shallow ploughing in later stage of the crop
14.	Any other relevant information specific to the variety/hybrid	Suitable for both Rainfed and irrigated.
	Commercial attributes	
1.	Yield of Kapas/ha (Average)	13-14 q/ac
2.	Yield of Lint/ha (Average)	5-6 q/ac

38. Application No. ED17 GH98 8 332 filed on 07.04.2008 by **JK Agri Genetics Ltd., 1-10-177, 4th Floor, Varun Towers, Begumpet, Hyderabad-500016** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **JKCH 226 Bt** has been accepted and given registration number ---------NA ---------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : JKCH 226 Bt
Applicant : JK Agri Genetics Ltd.
Address of the applicant : 1-10-177, 4th Floor, Varun Towers, Begumpet, Hyderabad-500016
Nationality of applicant : Indian
Application details
a. Number : ED17 GH98 8 332
b. Date of receipt : 07.04.2008
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : JKCH 226 Bt
Type of variety : EDV
Classification of variety : Transgenic & Hybrid
Previously proposed
Denomination : Not applicable
Name of parental material : JKC 764 (syn. JKC719) x JKC 703.
Source of parental material : Own germplasm
Name of Initial Varieties : JKCH 226, (2008/343)

Variety description:

A. Group characteristic	**Remarks (measured values/example variety *etc*.)**
Leaf: Shape (Characteristic 8)	Palmate (normal)
Flower: Petal colour (Characteristic 15)	Yellow
Flower: Pollen colour (Characteristic 19)	Cream
Boll: Shape (longitudinal section) (Characteristic 23)	Ovate
Fibre: Length (2.5% span length) (mm)	Medium Long

(Characteristic 33)		
B. Distinct characteristics of candidate variety: (Trait of derivation)		Insertion of *Cry1Ac* gene (Mon 531 Event) into JKCH 226 Bt and it has resistance to bollworm.
D. Date of commercialization of the variety		13.06.2007
E. Agronomic and commercial attributes		
S. no.	**Agronomic attributes**	**Details**
1.	Growth habit (Determinate/Indeterminate)	Indeterminate
2.	Days to flowering/Anthesis (average)	55-60
3.	Days to physiological maturity (average)	150-160
4.	Seed Rate Per ha	1.8 to 2.2 kg
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	Organic manure@ 4 tones/Ha
	Inorganic (per ha)	N : P : K Irrigated: 120: 60 : 60 kg/ha Rainfed: 80: 40 : 40 kg/ha
	Other fertilizers (per ha)	-
6.	Spacing (cm) requirement to attain potential yield	
	Row to row (cm)	120
	Plant to plant (cm)	60
7.	Soil requirements to attain the potential yield	Heavy clay to light sandy soils
8.	Plant protection measures to attain the potential yield (per acre)	**Jassid -** 50 ml Super Confidor (Imidacloprid 30.5% SC), 40 g Admire (Imidacloprid 70% WG), **Thrips -** 400 ml **Regent** (Fipronil 5% SC), 25 g **Jump** (Fipronil 80% WG) **Aphids -** 100 ml **Confidor** (Imidacloprid 20.0 SL), 30 g **Pride** (Acetamiprid 20 SP) **Para wilt**-350-400g **Carbendazim** or 350-400 g **COC**
9.	Sowing window requirement to attain potential yield (Zone wise)	15th June to 15th July
10.	Number of irrigations required to attain potential yield	Irrigation should be given at an interval of 20-25 days
11.	The best growing season to attain the potential yield (Zone wise)	*Kharif*
12.	Name the cropping/Climatic Zone of India in which the varietal/Hybrid trials were conducted	Central and South Zone
13.	Intercultural operations (including Training, Prunning & Nipping)	Deep ploughing in earlier stage of the crop whereas shallow ploughing in later stage of the crop.
14.	Any other relevant information specific to the variety/Hybrid	Suitable for both Rainfed and irrigated, highly responds to added fertilizers
	Commercial attributes	

1.	Zone-Wise Yield Potential (Average) per ha (q/Ha) (if applicable)	-
2.	Yield of Kapas/Ha (Average)	12 to 13 q/ac
	Yield of Lint/Ha (Average)	4-5 q/ac

39. Application No. | ED16 | GH95 | 8 | 329 | filed on 07.04.2008 by **JK Agri Genetics Ltd., 1-10-177, 4th Floor, Varun Towers, Begumpet, Hyderabad-500016** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **JK VARUN (JKCH 555) Bt** has been accepted and given registration number ----------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : JK VARUN (JKCH 555) Bt
Applicant : JK Agri Genetics Ltd.
Address of the applicant : 1-10-177, 4th Floor, Varun Towers, Begumpet, Hyderabad-500016
Nationality of applicant : Indian
Application details
a. Number : | ED16 | GH95 | 8 | 329 |
b. Date of receipt : 07.04.2008
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : JK VARUN (JKCH 555) Bt
Type of variety : EDV
Classification of variety : Transgenic & Hybrid
Previously proposed
Denomination : Not applicable
Name of parental material : NC-113 x NC-71Bt
Source of parental material : Own germplasm
Name of Initial Varieties : JK VARUN, (2008/345)

Variety description:

A. Group characteristic	**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Cream
Boll: Shape (longitudinal section) (Characteristic 23)	Round
Fibre: Length (2.5% span length) (mm) (Characteristic 33)	Long

B. Distinct characteristics of candidate variety: (Trait of derivation)		Inserted *cry1AC* (Mon 531 Events) gene into NC JK VARUN (JKCH 555) Bt and it has resistance to lepidoptara insect.
D. Date of commercialization of the variety		13.06.2007
E. Agronomic and commercial attributes		
S.no.	**Agronomic attributes**	**Details**
1.	Growth habit (Determinate/Indeterminate)	Indeterminate
2.	Days to flowering/Anthesis (Average)	53-58
3.	Days to physiological maturity (Average)	150-160
4.	Seed Rate Per ha	1.8 to 2.2 kg
5.	Recommended nutrition/ha schedule to attain potential yield and time of application	
	Organic (per ha)	Organic manure @ 4 tons/ac
	Inorganic (per ha)	N : P : K Irrigated: 120: 60 : 60 kg/ha Rainfed: 80: 40 : 40 kg/ha
	Other fertilizers (per ha)	
6.	Spacing (cm) requirement to attain potential yield	
	Row to row (cm)	120
	Plant to plant (cm)	60
7.	Soil requirements to attain the potential yield	Heavy clay to light sandy soils
8.	Plant protection measures to attain the potential yield (per acre)	Jassid - 50 ml Super Confidor (Imidacloprid 30.5% SC), 40 g Admire (Imidacloprid 70% WG) Thrips - 400 ml Regent (Fipronil 5% SC), 25 g Jump (Fipronil 80% WG) Aphids - 100 ml Confidor (Imidacloprid 20.0 SL), 30 g Pride (Acetamiprid 20 SP) Para wilt - 350-400g Carbendazim or 350-400 g COC
9.	Sowing window requirement to attain potential yield (Zone wise)	15th June to 15th July
10.	Number of irrigations required to attain potential yield	Irrigation should be given at an interval of 20-25 days
11.	The best growing season to attain the potential yield (Zone wise)	*Kharif*
12.	Name the cropping/Climatic Zone of India in which the varietal/Hybrid trials were conducted	Central and South Zone
13.	Intercultural operations (including Training, Prunning & Nipping)	Deep ploughing in earlier stage of the crop whereas shallow ploughing in later stage of the crop.
14.	Any other relevant information specific to the variety/Hybrid	Suitable for both Rainfed and irrigated, highly responds to added fertilizers
	Commercial attributes	

1.	Zone Wise Yield Potential (Average) per ha (q/Ha) (if applicable)	-
2.	Yield of Kapas/ac (Average)	13 to 14 q/ac
	Yield of Lint/ac (Average)	5 to 6 q/ac

40. Application No. ED2 | GH152 | 8 | 486 filed on 05.11.2008 **Nuziveedu Seeds Ltd., NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034** for an Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum* L.) having denomination **Mallika BG II (NCS 207 BG II)** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : Mallika BG II (NCS 207 BG II)
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034
Nationality of applicant : Indian
Application details
a. Number : ED2 | GH152 | 8 | 486
b. Date of receipt : 05.11.2008
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : Mallika BG II (NCS 207 BG II**)**
Type of variety : EDV
Classification of variety : Transgenic & Hybrid
Previously proposed Denomination : Not applicable
Name of parental material : (NC- 108 Bt x NC-102).
Source of parental material : Own germplasm
Name of Initial Varieties : NCS-207, (2008/411)

Variety description:

A. Group characteristic	**Remarks (measured values/example variety *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Yellow
Boll: Shape (longitudinal section) (Characteristic 23)	Ovate
Fibre: Length (2.5% span length)(mm)	Extra Long

(Characteristic 33)	
B. Distinct characteristics (Trait of derivation)	Insertion of *Cry1Ac* and *Cry2Ab* gene (Mon 15985 Event) into Mallika BG II (NCS 207 BG II) and it has resistance to bollworm.
D. Date of commercialization of the variety	04.07.2008

S.No.	**Agronomic attributes**	**Details**
1	Growth habit (Determinate/Indeterminate)	Semi spreading and indeterminate
2	Days to flowering/Anthesis (average)	Medium (50-60 days)
3	Days to physiological maturity (average)	160-170 days
4	Seed rate per ha	750g – 1.0 kg
5	Recommended nutrition/ha schedule to attain potential yield and time of application: Organic (per ha) Inorganic (per ha) Other fertilizers (per ha)	**Fertilizer management:** To apply FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing. **Fertilizer recommendation (kg/ha)** **Micronutrients:** Spray GA Leader @ 500 g/ac at 40 days, 750 g/ac at 70 days and 1000 g/ac at 100 days after sowing. Soil application of GA leader also can be done @ 8 kg/ac
6	Spacing (cm) requirement to attain potential yield	Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 5 x 1.5 ft or 4 x 2 ft

	Irrigated			**Rainfed**		
	N	**P**	**K**	**N**	**P**	**K**
Basal dose (at sowing)	60	50	25	60	40	20
1st Top dressing (25 DAS)*	30	25	25	30	20	20
2nd Top dressing (50 DAS)*	30	-	25	30	-	20
Total Requirement	**150**	**75**	**75**	**120**	**60**	**60**

* *DAS – Days After Sowing*

E. Agronomic and commercial attributes	--

	Row to row	Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 4 x 1.5 ft or 3 x 2 ft or 3.5 x 1.5 ft Andhra Pradesh and Telangana – Heavy soils - 3.5 x 2 ft, Medium soils – 3.5 x 1.5 ft or 3 x 1.5 ft Karnataka – Heavy soils 3 x 3 ft or 4 x 2 ft, Medium soils 3 x 2 ft Tamilnadu and Orissa – Heavy soils 3.5 x 2.5 ft, Medium soils – 3 x 2 ft Optimum plant population should be maintained by gap filling as minimum standard for germination is 75% under the seeds Act, 1966 and rules thereof.
	Plant to plant	
7	Soil requirements to attain the potential yield	
8	Plant protection measures to attain the potential yield	**Plant Protection:** To protect crop against sucking pests i.e. Aphids and Jassids with Clothianidin 15 to 20 g/ac, Buprofezin 120 to 160 ml/ac, Acetamiprid 20-40 g/ac or Imidachloprid 50-100ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam 40-50 g/ac or Fipronil 600-800 ml/ac, flonicamide 60ml/ac. To control white flies, spray Difenthiuron 250 gm/ac, For control of mealy bugs, spray Profenophos or Quinolphos 400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos 600 to 800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention/control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole,

		cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/Climatic Zone of India in wich the variety Hybrid trials were conducted	South and Central zone
13	Intercultural operations (including training, prunning & nipping	**Weed Management:** Three to four inter cultivations (hoeing) at 15 days interval after 30 days of sowing. Under rain fed condition, hand weeding/hoeing helps in keeping the plot free from weeds. Pendimethalin @ 1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
	Commercial attributes	
1	Yield of kapas/ha (Average)	12-14 q/ac in south and central zone under irrigated condition and 8-10 q/ac in south and central zone under rainfed condition
2	Yield of lint/ha (Average)	4-5 q/ac in south and central zone under irrigated condition and 2.8-3.5 q/ac in south and central zone under rainfed condition
3	Ginning(%)	High (35-36)
4	Fibre Traits:	
5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (27.5-32.0 mm)
	c) Strength (g/tex)	Medium 21.0-24.0 g/tex
	d) Fineness (Micronaire Value)	Mic: Fine 3.0-3.9

	e) Uniformity (%)	Excellent (> 47)
	f) Maturity (%)	Very good (> 81)
	Plant Height (cm) Average	Very tall (> 150)
6	Reaction against major diseases and pests	Moderately Tolerant to bacterial blight, grey mildew and alternaria. Slightly susceptible to jassids in early stages of growth. Moderately tolerant to whiteflies.
7	Reaction to major abotic stresses like drought, heat, salinity *etc.*	It can withstand excess rainfall.

41. Application No. | N42 | GH 49 | 13 | 126 | filed on 07.03.2013 by **Nuziveedu Seeds Ltd., Survey No. 69, Gundlapochampally (Vill. & Panchayat), Medchal-Mandal, Rangareddy- Dist-501401** for a New variety of crop Tetraploid Cotton (*Gossypium hirsutum* L.) having denomination **NC-811 (GMS)** has been accepted and given registration number --------- NA ----------on ---------- NA --------.

The convention application no. -----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : NC-811 (GMS),
Applicant : Nuziveedu Seeds Ltd.
Address of the applicant : Survey No. 69, Gundlapochampally (Vill. & Panchayat), Medchal-Mandal, Rangareddy- Dist-501401
Nationality of applicant : Indian
Application details
a. Number : | N42 | GH 49 | 13 | 126 |
b. Date of receipt : 07.03.2013
c. Date of acceptance : --
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : NC-811 (GMS),
Type of variety : New
Classification of variety : Inbred parental line
Previously proposed denomination : Not applicable
Name of parental material : Parent 1: PCGP -707, Parent 2: PCGP -944
Source of parental material : Own germplasm
Name of reference varieties : G Cot 12, PKV- RAJATA

Variety description:

A. Group characteristics	**Remarks (measured values/example varieties *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate
Flower: Petal colour (Characteristic 15)	Yellow
Flower: Pollen colour (Characteristic 19)	Cream

<table>
<tr><td colspan="2">Boll: Shape (Characteristic 23)</td><td>Ovate</td></tr>
<tr><td colspan="2">Fibre: Length (Characteristic 33)</td><td>Medium long</td></tr>
<tr><td colspan="3">B. Distinct characteristics of candidate variety:
NC-811 (GMS) has distinguishing character as plant stem hairness: medium, flower petal colour: yellow</td></tr>
<tr><td colspan="3">C. Distinct characteristics of reference variety:
G Cot 12, PKV- RAJATA has character as plant stem hairness: dense, flower petal colour: cream</td></tr>
<tr><td colspan="2">D. Date of commercialization of the variety</td><td>--</td></tr>
<tr><td colspan="3">E. Agronomic and commercial attributes</td></tr>
<tr><td>S.No.</td><td>Agronomic attributes</td><td>Details</td></tr>
<tr><td>1</td><td>Growth habit (Determinate/Indeterminate)</td><td>Semi spreading (31-60 cm) and indeterminate</td></tr>
<tr><td>2</td><td>Days to flowering/Anthesis (Average)</td><td>Medium (50-60 days)</td></tr>
<tr><td>3</td><td>Days to physiological maturity (Average)</td><td>150-165 days</td></tr>
<tr><td>4</td><td>Seed rate per ha</td><td>2-3 kg/ac</td></tr>
<tr><td>5</td><td>Recommended nutrition/ha schedule to attain potential yield and time of application:
Organic (per ha)
Inorganic (per ha)
Other fertilizers (per ha)</td><td>Fertilizer management: To always apply FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing. Bt Cotton needs timely balanced NPK application for greater boll retention in a short period and follows fertilizer application either based on soil test recommendation or the fertilizer dosage recommended below.

Fertilizer recommendation (kg/ha)

<table>
<tr><td></td><td colspan="3">Irrigated</td><td colspan="3">Rainfed</td></tr>
<tr><td></td><td>N</td><td>P</td><td>K</td><td>N</td><td>P</td><td>K</td></tr>
<tr><td>Basal dose (at sowing)</td><td>50</td><td>20</td><td>20</td><td>25</td><td>25</td><td>25</td></tr>
<tr><td>1st Top dressing (25 DAS)*</td><td>25</td><td>15</td><td>15</td><td>25</td><td>-</td><td>-</td></tr>
<tr><td>Total Requirement</td><td>75</td><td>35</td><td>35</td><td>50</td><td>25</td><td>25</td></tr>
</table>
* DAS – Days After Sowing

Micronutrients:

Spray GA Leader @ 500 g/ac at 40 days, 750 g/ac at 70 days and 1000 g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac.</td></tr>
</table>

6	Spacing (cm) requirement to attain potential yield Row to row Plant to plant	Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 90 x 60 cm or 90 x 45 cm Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 90 x 45cm or 90 x 60 cm or 90 x 30 cm Andhra Pradesh and Telangana – Heavy soils – 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm or 75 x 30 cm Karnataka – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils 90 x 45 cm or 90 x 60 cm or 90 x 30 cm Tamilnadu and Orissa – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm
7	Soil requirements to attain the potential yield	
8	Plant protection measures to attain the potential yield	**Plant Protection:** To protect crop against sucking pests i.e Aphids and Jassids with Clothianidin 15-20 g/ac, Buprofezin 120-160 ml/ac, Acetamiprid 20-40 g/ac or Imidachloprid 50-100 ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam 40-50 g/ac or Fipronil 600-800 ml/ac, flonicamide 60 ml/ac. To control white flies, spray Difenthiuron 250 g/ac, For control of mealy bugs, spray Profenophos or Quinolphos 400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos 600-800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention/control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria

		leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/Climatic Zone of India in wich the variety Hybrid trials were conducted	South and Central zone
13	Intercultural operations (including training, prunning & nipping	**Weed Management:** During critical crop growth upto 60 days, fields should be weed free. Three to four inter cultivations (hoeing) at 15 days interval after 30 days of sowing. Under rainfed condition, hand weeding/hoeing helps in keeping the plot free from weeds. Pendimethalin (a) 1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
14	Any other relevant information specific to the Variety/ Hybrid	
	Commercial attributes	
1	Yield of Kapas/Ha (Average)	6-8 q/ac in south and central zone under irrigated condition and 4-6 q/ac in south and central zone under rainfed condition
2	Yield of Lint/Ha (Average)	2.0-2.5 q/ac in south and central zone under irrigated condition and 1.5-2.0 q/ac in south and central zone under rainfed condition
3	Ginning(%)	Medium (33-34)
4	Fibre Traits:	
5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Long (27.5-32.0 mm)
	c) Strength (8/tex)	Strong (25.0-28.0 g/tex)
	d) Fineness (Micronaire Value)	Medium (4.0-4.9)
	e) Uniformity (%)	Excellent (> 47%)

	f) Maturity (%)	Very good (> 81%)
	Plant Height (cm) Average	Tall (121-150)
6	Reaction against major diseases and pests	Moderatetolerance to jassids and thrips

42. Application No. | ED16 | GH135 | 9 | 253 | filed on 11.05.2009 by **Nuziveedu Seeds Pvt. Ltd, NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034** for Essential Derived Variety (EDV) of crop **Tetraploid Cotton** (*Gossypium hirsutum.* L.) having denomination **NC-1108 Bt** has been accepted and given registration number ---------NA ----------on ---------- NA --------.

The convention application no.-----NA-----, in respect of the said variety has been filed on -----NA------, in ---NA----.

Appropriate office for the opposition of proceeding under Rule 29, of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 is Office of the Registrar, PPV&FR Authority, New Delhi – 110 012.

Passport data of the variety : NC-1108 Bt
Applicant : Nuziveedu Seeds Pvt Ltd.
Address of the applicant : NSL ICON, No.8-2-684/2/A, Plot No. 1 to 4, 4th Floor, Opp. ICICI Bank, Road No. 12, Banjara Hills, Hyderabad-500034
Nationality of applicant : Indian
Application details
a. Number : | ED16 | GH135 | 9 | 253 |
b. Date of receipt : 11.05.2009
c. Date of acceptance : 28.11.2018
Crop (Taxonomical lineage) : Tetraploid Cotton (*Gossypium hirsutum* L.)
Denomination : NC-1108 Bt
Type of variety : EDV
Classification of variety : Transgenic (Parental Line) (NC-1108Bt is one of the parental lines of NCS – 990 Bt, Acknowledgement No. REG/2008/491)
Previously proposed denomination : Not applicable
Name of parental material : NC-1108 x NC-71Bt.
Source of parental material : R&D Nuziveedu Seeds Ltd.
Name of initial varieties : NC 1108, (2009/215)

Variety description:

A. Group characteristic	**Remarks (measured values/ example variety *etc.*)**
Leaf: Shape (Characteristic 8)	Palmate (normal)
Flower: Petal colour (Characteristic 15)	Cream
Flower: Pollen colour (Characteristic 19)	Cream

<table>
<tr><td colspan="2">Boll: Shape (longitudinal section) (Characteristic 23)</td><td>Round</td></tr>
<tr><td colspan="2">Fibre: Length (2.5% span length) (mm) (Characteristic 33)</td><td>Long</td></tr>
<tr><td colspan="2">B. Distinct characteristic (Trait of derivation)</td><td>Insertion of Cry 1Ac gene (Mon 531 Event) into NC-1108 Bt and it has resistance to bollworm</td></tr>
<tr><td colspan="2">D. Date of commercialization of the variety</td><td>30-06-2007</td></tr>
<tr><td colspan="3">E. Agronomic and commercial attributes</td></tr>
<tr><td>S.No.</td><td>Agronomic attributes</td><td>Details</td></tr>
<tr><td>1</td><td>Growth habit (Determinate/Indeterminate)</td><td>Semi spreading (31-60 cm) and indeterminate</td></tr>
<tr><td>2</td><td>Days to flowering/Anthesis (Average)</td><td>Medium (50- 60 days)</td></tr>
<tr><td>3</td><td>Days to physiological maturity (Average)</td><td>150-165 days</td></tr>
<tr><td>4</td><td>Seed rate per ha</td><td>2-3 kg/ac</td></tr>
<tr><td rowspan="4">5</td><td>Recommended nutrition/ha schedule to attain potential yield and time of application:</td><td rowspan="4">Fertilizer management: To apply FYM or compost @ 5-10 tons/ac three to four weeks before final harrowing and sowing.

Fertilizer recommendation (kg/ha)

<table>
<tr><td></td><td colspan="3">Irrigated</td><td colspan="3">Rainfed</td></tr>
<tr><td></td><td>N</td><td>P</td><td>K</td><td>N</td><td>P</td><td>K</td></tr>
<tr><td>Basal dose (at sowing)</td><td>50</td><td>20</td><td>20</td><td>25</td><td>25</td><td>25</td></tr>
<tr><td>1st Top dressing (25 DAS)*</td><td>25</td><td>15</td><td>15</td><td>25</td><td>-</td><td>-</td></tr>
<tr><td>Total Requirement</td><td>75</td><td>35</td><td>35</td><td>50</td><td>25</td><td>25</td></tr>
</table>
* DAS – Days After Sowing

Micronutrients:

Spray GA Leader @ 500 g/ac at 40 days, 750 g/ac at 70 days and 1000 g/ac at 100 days after sowing to avoid micronutrient deficiency. Soil application of GA leader also can be done @ 8 kg/ac.</td></tr>
<tr><td>Organic (per ha)</td></tr>
<tr><td>Inorganic (per ha)</td></tr>
<tr><td>Other fertilizers (per ha)</td></tr>
<tr><td>6</td><td>Spacing (cm) requirement to attain potential yield</td><td>Row to row and Plant to plant spacing may be followed based on soil texture, fertility status, irrigation availability, drip irrigation facility,</td></tr>
</table>

	Row to row	crop rotation *etc.* Deep Black soils of Gujrat, Madhya Pradesh and Khandesh region of Maharashtra: 90 x 60 cm or 90 x 45 cm Black Cotton soils of Vidarbha and Marathwada (Maharashtra): 90 x 45 cm or 90 x 60 cm or 90 x 30 cm Andhra Pradesh and Telangana – Heavy soils – 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm or 75 x 30 cm. Karnataka – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils 90 x 45 cm or 90 x 60 cm or 90 x 30 cm. Tamilnadu and Orissa – Heavy soils 90 x 60 cm or 90 x 45 cm, Medium soils – 90 x 45 cm or 90 x 60 cm or 90 x 30 cm.
	Plant to plant	
7	Soil requirements to attain the potential yield	
8	Plant protection measures to attain the potential yield	**Plant Protection:** To protect crop against sucking pests i.e Aphids and Jassids with Clothianidin 15-20 g/ac, Buprofezin 120-160 ml/ac, Acetamiprid 20-40 g/ac or Imidachloprid 50-100 ml/ac or flonicamid 60 ml/ac. To control Thrips, spray Thiomethoxam 40 -50 g/ac or Fipronil 600-800 ml/ac, flonicamide 60ml/ac. To control white flies, spray Difenthiuron 250 g/ac, For control of mealy bugs, spray Profenophos or Quinolphos 400-600 ml/ac. If infestation of bollworms found above economic threshold levels, it is necessary to control bollworms with chemicals such as, quinolphos 600-800 ml/ac, Chlorpyriphos 600 ml/ac, thiodcarb 800 g/ac, profenophos 600 ml/ac, cypermethrin 240 ml/ac, chlorantraniliprole 18.5% SC 60 ml/ac (Chloratranilprole (10%) + Lambdacyhalothrin (5%) ZC) 80-100 ml/ac, Spinosad 100 ml/ac, Emamectin benzoate 80 ml/ac. **Disease Management** It is advisable to take up 1 or 2 prophylactic spraying after 90-100 days of crop growth with fungicide like Metalaxyl Mancozeb, Carbendazim, Copper oxychloride and Streptocyclin or the combination of these for prevention / control of diseases like *Grey mildew, Alternaria, Cercospora leaf spot, Bacterial Blight etc.* As an alternate to chemical fungicide, the usage of bio fungicide like

		Trichoderma, Pseudomonas is also recommended. Propiconazole, hexaconazole, cyproconazole are effective broad-spectrum fungicides which can be used in the management of grey mildew, Alternaria leaf spot.
9	Sowing window requirement to attain potential yield (Zone wise)	Second week of June to first week of July.
10	Number of irrigations required to attain potential yield	**Water Management:** On black soils, 5-6 irrigations are commonly required at the interval of 20 days. On red/light/sandy loam soils with low water retention capacity, 8-10 irrigations may be required at the interval of 15 days.
11	The best growing season to attain the potential yield (zonewise)	*Kharif* in South zone and Central zone
12	Name the cropping/Climatic Zone of India in wich the variety Hybrid trials were conducted	South and Central zone
13	Intercultural operations (Including Training, Prunning & Nipping	**Weed Management:** Three to four inter cultivations (hoeing) at 15 days interval after 30 days of sowing. Pendimethalin (a) 1 L/ac is effective pre-emergence herbicide to control nearly 75% of weeds including annual grasses. Post emergence herbicides Propaquizafop 10% EC @ 200-300 ml/ac to control grasses and Pyrithiobac sodium @ 250 ml/ac to control broad leaf weeds can be used depending upon necessity when intercultivation or hoeing is not possible due to continuous rains. Paraquat @ 1 L/ac as post-emergence would give good control of weeds in later stages and thereby increasing the seed cotton yields.
14	Any other relevant information specific to the Variety/ Hybrid	
	Commercial attributes	
1	Yield of Kapas/Ha (Average)	6-8 q/ac in south and central zone under irrigated condition and 4-6 q/ac in south and central zone under rainfed condition
2	Yield of Lint/Ha (Average)	2.2-3.0 q/ac in south and central zone under irrigated condition and 1.5-2.2 q/ac in south and central zone under rainfed condition
3	Ginning(%)	Very high (>37%)
4	Fibre Traits:	
5	a) Colour	White
	b) Length (2.5% Span Length (mm)	Medium long (25.0-27.5 mm)

	c) Strength (g/tex)	Strong 25.0-28.0 g/tex
	d) Fineness (Micronaire Value)	Mic: Fine 4.0–4.9
	e) Uniformity (%)	Excellent (>47%)
	f) Maturity (%)	Very good ((>81%)
	Plant Height (cm) Average	Tall (121-150 cm)
6	Reaction against major diseases and pests	Moderate tolerance to whiteflies and tolerant to grey mildew.