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Plant Breeders' Rights Registry

Plant Breeders' Rights Journal



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January 2026

PLANT BREEDERS' RIGHTS JOURNAL

An official journal

of

**Plant Breeders' Rights Registry
Ministry of National Food Security and Research
Government of Pakistan**

Plant Breeders' Rights Registry G-9/4,
Maive Area, Islamabad, Pakistan
January, 2026

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CASES FOR OPPOSITION

1. Application No.: PBRR-Cotton-172/25

Name of the Applicant: Director, Central Cotton Research Centre, Sakrand
Institute: Central Cotton Research Centre, Sakrand
Name of Breeder(s): Muhammad Saffar Majidano, Saira Bano Babar, Dr. Rehana Anjum and Abdul Razzaque Channaz
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: Bt. CRIS-682
Crop: Cotton (*Gossypium hirsutum* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable
Salient features:

CHARACTERISTICS	DESCRIPTION
Maturity duration	Medium
Days to opening 50%	107
Comparable variety	CIM-600, CRIS-508
SEEDLING CHARACTERISTICS	
Seedling length (cm)	7.5-10
Seedling colour	Light green
Foliage spot	Absent
PLANT CHARACTERISTICS	
Growth habit	Spreading
Plant height (cm)	135
Plant shape	Cylindrical
Fruiting branch type	Normal
Monopodia attitude	Semi erect
Sympodia attitude	Semi erect
Nodes to 1st monopodia	5
Monopodia/plant	0-1
Sympodia/plant	28-30

Stem pigmentation	Medium
Stem tip hairiness	Medium
Bud gossypol	Normal
LEAF CHARACTERISTICS	
Foliage density	Intermediate
Leaf colour	Green
Leaf length (cm)	10
Leaf width (cm)	12
Petiole length (cm)	9
Petiole anthocyanin	Present
Leaf attitude	Horizontal
Leaf type	Normal
Leaf appearance	Flat
Leaf nectaries	Present
Leaf hairiness	Medium
FLOWER CHARACTERISTICS	
Days to flowering 50%	70
Flowering duration	Medium
Flower size	Medium
Sepal pigmentation	Present
Petal spot	Absent
Nectaries	Present
Petal colour	Creamy
Anther colour	Creamy
Stamen density	Semi dense
Position of stigma	Exserted
Stigma exertion (mm)	4
Stigma height (mm)	18-20
Calyx size	Intermediate
BOLL CHARACTERISTICS	
Boll bearing habit	Solitary

Boll shape	Round
Boll colour	Green
Boll size	Medium
Beak size	Short
Boll length (cm)	3
Boll breadth (cm)	2.8
Boll broad at	Middle
Peduncle length (cm)	1.5
Boll surface	Roughly pitted
Gossypol	high
Bracteole length	Medium
Bracteole width	Medium
Bolls/plant	4-45
Boll opening	Semi open
Boll weight (g)	2.52
SEED CHARACTERISTICS	
Seed size	Medium
Seed shape	Obovate
Seed length (mm)	7-9
Seed width (mm)	4-5
Seed index (g)	7.27
Seed coat colour	Dark brown
Seed fuzz	Semi fuzzy
Fuzz colour	White
FIBER CHARACTERISTICS	
Fiber colour	White
GOT/Lint (%)	37
Staple length (mm)	28.2
Fineness (micronaire)	4.8
Fiber strength (tppsi)	27.3
Lint index (g)	4.27

Uniformity (%)	82
Fiber length group	Medium

Opposition can be filed up to: 22-04-2026

2. Application No.: PBRR-Brassica-169/25

Name of the Applicant: Nuclear Institute of Agriculture, Tando Jam
Institute: Nuclear Institute of Agriculture, Tando Jam
Name of Breeder(s): Dr. Mohammad Aquil Siddiqui, Muhammad Mahran Aslam and Muhammad Ali
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: NIA-CANOLA 2023
Crop: Brassica (Rapeseed) (*Brassica napus* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable
Salient features:

CHARACTERISTICS	DESCRIPTION
Origin	Local
Breeding method	Mutation breeding
Maturity duration	Short
Growth Habit	Spreading
Plant Type	Determinate
Plant height	Tall (76-100cm)
Plant color	Green
Main shoot length	Long (>60)
Stem shape	Round
Stem thickness	13-15
Stem stiffness	Medium
Stem pith	Hollow
Stem ramification	At low level
Leaf color	Green
Leaf attitude	Semi-erect

Leaf lobes	Absent
Dentation of margins	Entire
Leaf length (cm)	Medium (15-20)
Leaf width (cm)	Medium (7-8)
Leaf hairiness	Absent
Leaf margin indentation	Absent
Terminal segment	Small
Leaf attachment	Sessile
Leaf anthocyanin	Absent
Time of flowering	Early
Color of petal	Yellow
Petal length	Medium (1.2-1.5)
Petal width	Medium (0.7-0.8)
Anther dotting	Absent
Pod attitude	Erect
Pod shape	Cylindricate
Pod length/width (mm)	45-50
Pod surface texture	Intermediate
Pediceal length (cm)	2.2-2.6
Beak shape	Slender
Beak length (mm)	12-16
Pod shattering	Resistant
Seed color	Dark brown
Reticulation	Absent
Seed size	Medium
1000 Seed weight (g)	4.1-4.4
Seed Erucic Acid	Low (<2%)
Seed Glucosinolate	Low (<31µm/g)
Seed oil content	High (43-46%)
Flowering response to season	Stable
Drought tolerance	Medium

Tolerance to salinity	Medium
Heat tolerance	Medium

Opposition can be filed up to: 02-02-2026

3. Application No.: PBRR-Wheat-167/25

Name of the Applicant: Nuclear Institute of Agriculture, Tando Jam
Institute: Nuclear Institute of Agriculture, Tando Jam
Dr. Muhammad Faheem, Dr. Khalil Ahmed Laghari, Dr. Saima Mir and Dr. Mahboob Ali Sial
Name of Breeder(s):
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: NIA-Macpasta
Crop: Wheat durum (*Triticum turgidum* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable
Salient features:

CHARACTERISTICS	DESCRIPTION
Maturity Duration	Medium
SEEDLING CHARACTERISTICS	
Growth habit	Erect
Coleoptile color	Yellow
Seedling anthocyanin	Weak
PLANT CHARACTERISTICS	
Plant height (cm)	85.5-96.6
Color at booting stage	Green
STEM CHARACTERISTICS	
Stem anthocyanin	Absent
Stem waxy bloom	Strong
Stem wall thickness	Thin
Stem stiffness	Intermediate

Stem diameter (mm)	4.21
Peduncle length (cm)	15.10-23.29
Productive tillers/ m ²	185
No. of nodes/ stem	4-5
Straw Color	Yellowish White
Lodging	Medium
FLAG LEAF CHARACTERISTICS	
Flag leaf attitude	Erect
Flag leaf twist	Weak
Length (cm)	24.20-33.49
Width (cm)	17.70-23.50
Sheath wax	Weak
Sheath hairiness	Absent
Auricle hairiness	Absent
Auricle anthocyanin	Strong
EAR CHARACTERISTICS	
Ear emergence	80-88
Ear size	Medium
Length (cm)	7.5-8.3
Width (cm)	1.23-1.61
Wax at anthesis	Strong
Color at maturity	Yellowish White
Ear shape	Clavate
Ear density	Very dense
Super numerary spikelets	Absent
Speltoids	Absent
Shattering	Resistant
Ear kink/twist	Weak
Ear Awnedness	Awned
Awn distribution	Whole
Awn length	V long

Awn color	Yellowish White
Awn habit	Erect
Anther Color	Yellow
Rachis hairs apical	Profuse
Rachis hairs margin	Profuse
Rachis length (cm)	5.93
Rachis width (mm)	2.66
No. of segments	17.90
GLUME CHARACTERISTICS	
Glume length (mm)	11.60-13.20
Glume width size (mm)	3.20-5.20
Glume length Size	Medium
Glume width size	Wide
Lower glume shape	Narrow humped
Glume attachment	Medium
Glume Pubescence	Absent
Glume surface	Smooth
Lower glume shoulder shape	Elevated
Lower glume shoulder width	Narrow
Beak length (mm)	1.30-2.00
Lower glume beak shape	Short/Straight
Lower glume Beak Size	Short
Beak spicules	Present
Keel spicules	Present
Glume internal hair	Sparse
Glume internal imprint/ impression	Small
SEED CHARACTERISTICS	
Seed color	Amber
Seed surface	Opaque
Seed shape	Oval
Seed length (mm)	7.61-7.84

Seed width (mm)	3.04-3.31
Seed Thickness (mm)	2.40-3.60
Seed size	Bold
Seed brush	Medium
Seed Germ size	Medium
1000 seed weight (g)	43.68-49.06
Seed groove	Intermediate
Seed/ ear	59.2-79.7
Seed hardness	Hard
Protein (%)	12.53
Chapati quality	Medium
Yield (t/ha)	5.467-7.428
Flowering response to seasons	Stable
Drought tolerance	Medium
Tolerance to salinity	Medium
Heat tolerance	Medium

Opposition can be filed up to: 01-02-2026

4. Application No.: PBRR-Cotton-168/25

Name of the Applicant: Director, Nuclear Institute of Agriculture
Institute: Nuclear Institute of Agriculture
Name of Breeder(s): Dr. Zaheer Ahmad Dheo, Dr. Saifullah Abro, Mr. Muhammad Rizwan and Mr. Sawan Laghari
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: NIA-Resham
Crop: Cotton (*Gossypium hirsutum* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable

Salient features:

CHARACTERISTICS	DESCRIPTION
Sowing time	Early-Medium
Maturity duration	Medium
Growth habit	Intermediate
Foliage color	Green
Mature plant height (cm)	117
Tip hairiness	Medium
Foliage density	Intermediate
Bud gossypol	Normal
Stem pigmentation	Medium
Branch type	Normal
Nodes to 1st monopodia	2-4
Nodes to 1st Sympodia	6-7
Monopodia/plant	1-2
Sympodia/plant	26-28
Stem pigmentation	Medium
Stem tip hairiness	Medium
Bud gossypol	Normal
LEAF CHARACTERISTICS	
Leaf length (cm)	12.0
Leaf width (cm)	10.0
Leaf size	Medium
Leaf type	Normal
Leaf Nectarie's	Present
Leaf hairiness	Medium
FLOWER CHARACTERISTICS	
Flower color	Creamy
Flowering duration (from sowing)	40 days
Flower size	Medium
Petal spot	Absent

Nectarie's	Absent
Pollen colour	Creamy
Stamen density	Dense
Stigma exertion (mm)	2-3
Stigma height (mm)	22
Calyx size	Medium
BOLL CHARACTERISTICS	
Boll Size	Medium
Boll shape	Conical
Boll length	3.5
Boll breadth	3.2
Broad at	Middle
Boll beak	Short
Boll surface	Smooth
Boll gossypol	Normal
Locules/boll	4-5
Bolls plant ⁻¹	65-80
Opening	Good
Hand picking	Easy
Yield/acre (seed cotton)	3500 kg (potential) 1800 kg (achieved)
Yield lint/acre (kg)	1030 (potential) 600 (achieved)
Bracteole type	Normal
Bracteole size	Medium
Seed size	Medium
Seed index	9.5 g
Seed length (mm)	9.4
Seed thickness (mm)	4.9
Seed fuzz	Medium
Fuzz color	Dusky
Seed coat color	Brown
Oil content (%)	21-24

Fiber color	White
G.O.T %	40-42.0
Lint length	29.6
Fineness	4.4
Strength (g/tex)	36.1
Uniformity	50
Lint index	5.4
Resist lodging	Resistant
Resist suck insect	Jassids and CLCuV
Distinguishing characters	Erect sympodial type with zero to one monopod. Leaf normal green, semi hairy, semi erect. Stigma exertion 2-3 mm.

Opposition can be filed up to: 14-02-2026

5. Application No.: PBRR-Lentil-171/25

Name of the Applicant: Director, Nuclear Institute of Agriculture (NIA), Tando Jam

Institute: Nuclear Institute of Agriculture, Tandojam

Name of Breeder(s): Dr. Mohammad Aquil Siddiqui, Muhammad Mahran Aslam and Muhammad Ali

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: NIA-SAHARA 2020

Crop: Lentil (*Lens culinaris* L.)

Type of Variety: OPV

Name of Initial Variety (in case of EDV): Not Applicable

Salient features:

CHARACTERISTICS	DESCRIPTION
Variety/origin	ICARDA-8
Days to maturity	106-108
Maturity duration	Early
Sowing dates	Normal (10 th Nov to 10 th Dec)

SEEDLING CHARACTERS	
Seedling height (10 days)	3.0 cm
Hypocotyl color	Light purple
Hypocotyl length	2.6 cm
PLANT CHARACTERISTICS	
Growth habit	Erect
Main stem length	35-43
Plant color	Green
Canopy spread	Medium
Stem hairiness	Medium
Stem node	9-11
Stem color	Light purple
Twing tendency	Absent
LEAF CHARACTERISTICS	
Leaf color	Green
Petiole length	Short
Leaflet size	Medium
No. of leaflets	8-10 pairs
Rachis length (cm)	2.25-3.5
Leaf senescence	Absent
FLOWER CHARACTERISTICS	
Days to flower	64-68 days
Flower duration	Medium
Calyx color	Green
Corolla color	Light violet
Flower on peduncles	3-4 flower
Peduncle length (cm)	2-3
POD CHARACTERISTICS	
Pod length (cm)	1.2
Pod width (cm)	0.6
Pod shape	Oblong

Pod beak	Small
Seeds/pod	2
Pod shattering	Absent
Pods/plant	165
Mature pods color	Brownish
SEED CHARACTERISTICS	
Seed color	Greyish brown
Seed shape	Convex lens type
Seed dots	Present
Seed testa texture	Smooth
Seed surface	Plain
Seed size	Medium bold
Seed diameter (mm)	5
Cotyledon color	Light orange
Seed protein	22-38
1000 seed weight (gm)	25
Yield kg/ha	889
Lodging resistance	Resistant
Blight resistance	Resistant
Rust resistance	Resistant

Opposition can be filed up to: 14-02-2026

6. Application No.: PBRR-Rice-173/25

Name of the Applicant:	Chairman Department of Plant Breeding and Genetics University of Punjab
Institute:	Department of Plant Breeding and Genetics University of Punjab
Name of Breeder(s):	Dr. Muhammad Ashfaq, Prof. Renshan Zhu and Dr. Xianting Wu
Name of Co-breeder(s):	
Application for:	New Plant Variety
Denomination of Variety:	PU-786
Crop:	Rice (<i>Oryza sativa</i> L.)
Type of Variety:	Hybrid
Name of Initial Variety (in case of EDV):	Not Applicable

Salient features:

CHARACTERISTICS	DESCRIPTION
STEM CHARACTERISTICS	
Days to maturity (After transplanting)	95-100
Mature plant height (cm)	116
Stem length (cm)	89 (very short <91cm)
No. of nodes/stem	5-Apr
Internode color	Light Yellow
Tillers/plant	8-11
Matured straw color	Straw
LEAF CHARACTERISTICS	
Leaf width (cm)	1.3
Leaf color	Green
Leaf anthocyanin	Absent
Leaf pubescence	Absent
Leaf sheath color	Dark green
Ligule color	Papery
Ligule length (mm)	1.3
Ligule shape	2-Cleft
Leaf auricle	Present
Collar color	Pale green
Flag leaf attitude	Semi erect
Flag leaf length (cm)	36
Flag leaf width (cm)	1.8
PANICLE CHARACTERISTICS	
Panicle length (cm) of main axis	Long (26-30)
Panicle type	Medium compact
Spikelet density	Semi dense
Panicle exertion	Well exerted
Branches/panicle	24
Secondary branches	Present

Intensity of secondary branches	Strong
Awning at flowering	Absent
Spikelets/panicle	457
Sterility	V. low
Shattering	V. low
Thresh ability	Easy
SEED CHARACTERISTICS	
Seed awning	Absent
Stigma color	White
Apiculus color (anthesis)	White
Apiculus color (maturity)	Straw
Husk color	Straw
Husk pigmentation	Absent
Husk pubescence	Medium
Pubescence length	Short
Seed shape	Spear
Seed length (mm)	8.7
Seed width (mm)	2.7
Seed thickness (mm)	2
000, seed weight (g)	28
Seed dormancy	Low
Sterile lemma color	Straw
KERNAL CHARACTERISTICS	
Kernal length/thickness (mm)	3.38
Kernal length (mm)	6.1
Kernal width (mm)	1.8
Kernal color	White
Kernal appearance	Translucent
Kernal quality	Coarse
Kernal chalkiness	Absent
Aroma	Absent

Opposition can be filed up to: 16-03-2026

ISSUANCE OF PLANT VARIETAL PROTECTION CERTIFICATES

1. Application No: PBRR-Wheat-92/23

Name of the Applicant: Wheat Program, PARC-NARC, Islamabad

Institute: Wheat Program, PARC-NARC, Islamabad
Dr. Maqsood Qamar, Mrs. Sundas Waqar,
Dr. Zahid Mehmood, Syed Haider Abbas

Name of Breeder(s): Dr. Sikandar Khan Tanveer, Dr. Imtiaz Hussain,
and Dr. Ghulam Muhammad Ali

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: Wafaq-2023

Crop: Wheat (*Triticum aestivum* L.)

Type of Variety: OPV

Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Days to Maturity	150-160
Earlier than	Pakistan-2013
Later than	Fareed-2006
Suitable for sowing	1st week of November
Sowing time	1st Nov to 15th Nov
SEEDLING CHARACTERISTICS	
Growth habit	Erect
Coleoptile color	White
Seedling anthocyanin	Absent
PLANT CHARACTERISTICS	
Plant height (cm)	75-108
Taller than	Fareed-2006
Shorter than	Pakistan-20137i9
Color at booting stage	Green
STEM CHARACTERISTICS	

Stem anthocyanin	Absent
Stem waxy bloom	Strong
Stem wall thickness	Thin
Stem stiffness	Soft
Stem diameter (mm)	3
Peduncle length (cm)	34-39
Productive tillers	481
Nodes/Stem	3-4
Straw Color	Yellowish white
Lodging	Absent
FLAG LEAF CHARACTERISTICS	
Flag leaf attitude	Erect
Flag leaf twist	Strong
Length (cm)	14-30
Width (cm)	1.2-2.4
Sheath wax	Medium
Sheath hairiness	Absent
Auricle hairiness	Sparse
Auricle anthocyanin	Weak
EAR CHARACTERISTICS	
Ear emergence	100-125
Ear size	Medium
Length (cm)	9-12.5
Width (cm)	1-1.5
Wax at anthesis	Weak
Color at maturity	Yellowish white
Ear shape	Tapering
Ear density	Lax
Super numerary spikelets	Absent
Speltoids	Absent
Shattering	Resistant

Ear kink/ twist	Medium
Ear Awnedness	Awned
Awn distribution	Whole
Awn length	Medium
Awn color	Yellowish white
Awn habit	Erect
Anther Color	Yellow
Rachis hairs apical	Medium
Rachis hairs margin	Sparse
Rachis length (cm)	9-10
Rachis width (mm)	0.2-0.5 or 2-5
No. of segments	16-20
GLUME CHARACTERISTICS	
Glume length (mm)	0.8-1.2
Glume width size (mm)	0.3-0.4
Glume length size	Medium
Glume width size	Medium
Lower glume shape	Narrow humped
Glume attachment	Weak
Glume Pubescence	Absent
Glume surface	Smooth
Lower glume shoulder shape	Slopping
Lower glume shoulder width	Narrow
Beak length mm	2-3
Lower glume beak shape	Short straight
Lower glume Beak Size	Short
Beak spicules	Present
Keel spicules	1
Glume internal hair	Absent
Glume internal imprint/impression	Absent
SEED CHARACTERISTICS	

Seed color	Amber
Seed surface	Opaque
Seed shape	Ovate
Seed length (mm)	6-7
Seed width (mm)	3-4
Seed Thickness (mm)	2-3
Seed size	Medium
Seed brush	Short
Seed Germ size	Medium
1000 seed weight (g)	40-45
Seed groove	Shallow
Seed/ Ear	50-70
Seed hardness	Hard
Protein (%)	13.4
Chapati quality	Good
Bread quality	Good
Average Yield (kg/ hac)	8600
ENVIROMENTAL ADAPTABILITY	
Flowering response to seasons	Stable
Drought tolerance (Measured as reduction in yield)	Tolerant
Tolerance to salinity (Measured by reduction in plant height 30 days after sowing)	Tolerant
Heat tolerance (Measured as yield reduction when continuously exposed to average of 40 °C during the flowering period)	Tolerant
Distinguishing Characteristics	Yellowish white at maturity with erect flag leaf, Short and straight lower glume beak and Narrow humped lower glume shoulder



Form PB-10
[See Rule 13(1)]

Serial No. 000089



Government of Pakistan Plant Breeders' Rights Registry

CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No.	89-WT/92-2023	Dated:	13-09-2023
Crop:	Wheat	Denomination of Variety:	Wafaq-2023
Type:	Registered	Conventional/GMC:	Conventional
OP/Hybrid:	OP	Local/Exotic:	Local

As declared

- That Dr. Maqsood Qamar, Sundas Waqar, Dr. Zahid Mehmood, Syed Haider Abbas Dr. Sikandar Khan Tanveer, Dr. Imtiaz Hussain and Dr. Ghulam Muhammad Ali has/have developed new plant variety and also that they are the true breeder(s).
- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

WHEAT PROGRAM, PARC-NARC, ISLAMABAD

وہیٹ پروگرام، پی اے آر سی-این اے آر سی، اسلام آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 13th day of September 2023 and expiring on the 12th day of September 2043.



Registrar

Date of Grant

14-11-2025

2. Application No: PBRR-Rice-143/25

Name of the Applicant: Nuclear Institute for Agriculture & Biology,
Faisalabad
Institute: Nuclear Institute for Agriculture & Biology,
Faisalabad
Name of Breeder(s): Dr. Zia-ul-Qamar, Dr. Muhammad Ashraf and
Dr. Muhammad Rashid
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: NIAB RC-195
Crop: Rice (*Oryza sativa* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Seedling colour	Green
Coleoptile color	Colorless
Seedling length (cm)	9
Leaf length (cm)	19
Leaf length of blade	Medium
Leaf anthocyanin	Absent
Leaf width (cm)	1.6
Leaf width	Medium
Leaf pubescence	Sparse
Leaf color	Green
Leaf sheath color	Pale Green
Leaf senescence	Intermediate
Ligule color	Other
Ligule length (cm)	2.4
Shape	Truncate
Collar color	Pale Green
Flag leaf attitude	Erect
Flag leaf length	20

Flag leaf width	2
Mature stem length (cm)	91
Stem attitude	Erect
Stem thickness (cm)	0.33
Stem stiffness	Stiff
Tillers/plant	9
Internode color	Light Yellow
No. of nodes/stem	5
Maturity straw color	Straw
Panicle length (cm)	10
Panicle length	Medium
Panicle type	Medium compact
Spikelet density	Semi dense
Spikelets/panicle	163
Branches/panicle	Moderate
Secondary branches	Present
Intensity of secondary branches	Moderate
Attitude of branches	Semi erect
Panicle exertion	Mostly Exerted
Panicle curvature of main axes	Semi straight
Awning at maturity	Absent
Awn color at maturity	Straw
Shattering	Very Low
Threshability	Easy
Seed awning	Absent
Apiculus color (maturity)	Straw
Husk color	Straw
Husk pigment	Absent
Husk pubescence	Sparse
Pubescence length	Short
Seed shape	Spear

Seed length (mm)	1.025
Seed width (mm)	2
Seed thickness (mm)	2

Form PB-10
 [See Rule 13(1)]
 Serial No. **000096**



Government of Pakistan Plant Breeders' Rights Registry



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 96-RC/143-2025	Dated: 12-02-2025
Crop: Rice	Denomination of Variety: NIAB RC-195
Type: Registered	Conventional/GMC: Conventional
OP/Hybrid: OP	Local/Exotic: Local

As declared

- That **Dr. Zia-ul-Qamar**

has/have developed new plant variety and also that he is the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

**NUCLEAR INSTITUTE FOR AGRICULTURE & BIOLOGY,
FAISALABAD**

نیوکلیر انسٹیٹیوٹ فار ایگریکلچر اینڈ بائیولوجی، فیصل آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of **twenty** years starting from the **12th** day of **February 2025** and expiring on the **11th** day of **February 2045**.



Registrar _____

Date of Grant **02-12-2025**

3. Application No: PBRR-Rice-144/25

Name of the Applicant: Nuclear Institute for Agriculture & Biology,
Faisalabad
Institute: Nuclear Institute for Agriculture & Biology,
Faisalabad
Name of Breeder(s): Dr. Zia-ul-Qamar, Dr. Muhammad Ashraf and
Dr. Muhammad Rashid
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: NIAB S-39
Crop: Rice (*Oryza sativa* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Seedling colour	Light Green
Coleoptile color	Colorless
Seedling length (cm)	6
Leaf length (cm)	18
Leaf length of blade	Medium
Leaf anthocyanin	Absent
Leaf width (cm)	0.5
Leaf width	Medium
Leaf pubescence	Sparse
Leaf color	Green
Leaf sheath color	Green
Leaf senescence	Intermediate
Ligule color	Papery
Ligule length (cm)	2.3
Shape	2-Cleft
Collar color	Pale Green
Flag leaf attitude	Erect
Flag leaf length	15


Flag leaf width	1.6
Mature stem length (cm)	142
Stem attitude	Semi Erect
Stem thickness (cm)	0.35
Stem stiffness	Semi Stiff
Tillers/plant	25-26
Internode color	Light Yellow
No. of nodes/stem	5
Maturity straw color	Straw
Panicle length (cm)	12
Panicle length	Medium
Panicle type	Compact
Spikelet density	Dense
Spikelets/panicle	142
Branches/panicle	Moderate
Secondary branches	Present
Intensity of secondary branches	Profuse
Attitude of branches	Semi erect
Panicle exertion	Well exerted
Panicle curvature of main axes	Semi straight
Awning at maturity	Absent
Awn color at maturity	Absent
Shattering	Low
Thrashability	Easy
Seed awning	Absent
Apiculus color (maturity)	Straw
Husk color	Straw
Husk pigment	Absent
Husk pubescence	Medium
Pubescence length	Short
Seed shape	Semi crescent

Seed length (mm)	10.1
Seed width (mm)	2.1
Seed thickness (mm)	1.5

Form PB-10
[Sec Rule 13(1)]

Serial No. **000094**





Government of Pakistan
Plant Breeders' Rights Registry

CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 94-RC/144-2025	Dated: 12-02-2025	
Crop: Rice	Denomination of Variety: NIAB S-39	
Type: Registered	Conventional/GMC: Conventional	
OP/Hybrid: OP	Local/Exotic: Local	

As declared

- That **Dr. Zia-ul-Qamar**


has/have developed **new** plant variety and also that **he is** the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

**NUCLEAR INSTITUTE FOR AGRICULTURE & BIOLOGY,
FAISALABAD**

نیوکلیر انسٹی ٹیوٹ و ناریٹو ایگریکلچر اینڈ بائیولوجی، فیصل آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of **twenty** years starting from the **12th** day of **February 2025** and expiring on the **11th** day of **February 2045**.



Registrar 

Date of Grant **01-12-2025**

4. Application No: PBRR-Rice-145/25


Name of the Applicant: Nuclear Institute for Agriculture & Biology, Faisalabad
Institute: Nuclear Institute for Agriculture & Biology, Faisalabad
Name of Breeder(s): Dr. Zia-ul-Qamar
Name of Co-breeder(s): Dr. Muhammad Ashraf and Dr. Muhammad Rashid
Application for: New Plant Variety
Denomination of Variety: NIAB ST-9
Crop: Rice (*Oryza sativa* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Seedling colour	Green
Coleoptile color	Colorless
Seedling length (cm)	10
Leaf length (cm)	19
Leaf length of blade	Medium
Leaf anthocyanin	Absent
Leaf width (cm)	2
Leaf width	Medium
Leaf pubescence	Sparse
Leaf color	Green
Leaf sheath color	Green
Leaf senescence	Intermediate
Ligule color	Other
Ligule length (cm)	2.28
Shape	2-cleft
Collar color	Pale Green
Flag leaf attitude	Erect
Flag leaf length	20
Flag leaf width	2

Mature stem length (cm)	84
Stem attitude	Semi erect
Stem thickness (cm)	0.35
Stem stiffness	Semi stiff
Tillers/plant	9-10
Internode color	Light Yellow
No. of nodes/stem	5
Maturity straw color	Straw
Panicle length (cm)	10
Panicle length	Short
Panicle type	Compact
Spikelet density	Semi Dense
Spikelets/panicle	148
Branches/panicle	Moderate
Secondary branches	Present
Intensity of secondary branches	Moderate
Attitude of branches	Semi erect
Panicle exertion	Mostly exerted
Panicle curvature of main axes	Semi straight
Awning at maturity	Absent
Awn color at maturity	Absent
Shattering	Moderate
Threshability	Easy
Seed awning	Absent
Apiculus color (maturity)	Straw
Husk color	Straw
Husk pigment	Sparse
Husk pubescence	Weak
Pubescence length	Short
Seed shape	Spear
Seed length (mm)	11


Seed width (mm)	2
Seed thickness (mm)	2

Form PB-10
 [Sec Rule 13(1)]
 Serial No. **000097**



Government of Pakistan

Plant Breeders' Rights Registry



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 97-RC/145-2025	Dated: 12-02-2025	
Crop: Rice	Denomination of Variety: NIAB ST-9	
Type: Registered	Conventional/GMC: Conventional	
OP/Hybrid: OP	Local/Exotic: Local	

As declared

- That **Dr. Zia-ul-Qamar**


has/have developed new plant variety and also that he is the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

**NUCLEAR INSTITUTE FOR AGRICULTURE & BIOLOGY,
FAISALABAD**

نیوکلیر انسٹی ٹیوٹ و ساراگراؤنڈ ریسیلٹیوٹ بائیولوجی، فیصل آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of **twenty** years starting from the **12th** day of **February 2025** and expiring on the **11th** day of **February 2045**.



Registrar _____

Date of Grant **02-12-2025**

5. Application No: PBRR-Wheat-141/25

Name of the Applicant: Senior Director, Agriculture Research Institute, Tarnab Peshawar

Institute: Agriculture Research Institute, Tarnab Peshawar
Iltaf Ullah, Dr. Masood Jan Turnagzai , Ahmad Said, Haneef Raza, Shah Fahad, Salman Ali, Fahim Ullah Khan, Hidayat Ullah

Name of Breeder(s): Sultan Akbar Jadoon and Sadia Mukhtiar

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: Tarnab Rehbar

Crop: Wheat (*Triticum Aestivum* L.)

Type of Variety: OPV

Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Maturity Duration	Medium
SEEDLING CHARACTERISTICS	
Growth habit	Erect
Coleoptile color	White
Seedling anthocyanin	Weak
PLANT CHARACTERISTICS	
Plant height (cm)	79-120
Color at booting stage	Green
STEM CHARACTERISTICS	
Stem anthocyanin	Absent
Stem waxy bloom	Strong
Stem wall thickness	Thin
Stem stiffness	Stiff
Stem diameter mm	3-5
Peduncle length cm	28-38
Productive tillers/m,m ²	181
Nodes/Stem	3-4

Straw Color	Yellowish White
Lodging	Absent
FLAG LEAF CHARACTERISTICS	
Flag leaf attitude	Semi erect
Flag leaf twist	Strong
Length cm	22-30
Width cm	2-2.5
Sheath wax	Medium
Sheath hairiness	Absent
Auricle hairiness	Medium
Auricle anthocyanin	Absent
EAR CHARACTERISTICS	
Ear emergence	102
Ear size	Medium
Length cm	12-14
Width cm	1.5-2.5
Wax at anthesis	Medium
Color at maturity	Yellowish White
Ear shape	Tapering
Ear density	Medium dense
Super numerary spikelets	Absent
Speltoids	Absent
Shattering	Resistance
Ear kink/twist	Weak
Ear Awnedness	Awned
Awn distribution	Whole
Awn length	Medium
Awn color	Yellowish White
Awn habit	Horizontal/Erect
Anther Color	Yellow
Rachis hairs apical	Absent

Rachis hairs margin	Absent
Rachis length cm	11-13
Rachis width mm	2-2.5
No. of segments	20-23
GLUME CHARACTERISTICS	
Glume length mm	12-14
Glume width Size mm	5-6
Glume length Size	Medium
Glume width size	Medium
Lower glume shape	Broad flat/ Narrow humped
Glume attachment	Medium
Glume Pubescence	Absent
Glume surface	Rough
Lower glume shoulder shape	Slopping/Striaight/Indent
Lower glume shoulder width	Narrow /Medium /Broad
Beak length mm	6-6
Lower glume beak shape	Curved/Humped
Lower glume Beak Size	Medium/ Long
Beak spicules	Present
Keel spicules	Present
Glume internal hair	Sparse
Glume internal imprint/impression	Small
SEED CHARACTERISTICS	
Seed color	White/ Amber
Seed surface	Shiny
Seed shape	Oval/ Ovate
Seed length mm	5-6
Seed width mm	3
Seed Thickness mm	2
Seed size	Medium
Seed brush	Medium

Seed Germ size	Medium/Small
1000 seed weight (g)	30.3
Seed groove	Shallow/Deep
Seed/ Ear	54
Seed hardness	Medium



Form PB-10
[See Rule 13(1)]

Serial No. 000086



Government of Pakistan Plant Breeders' Rights Registry

CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 86-WT/141-2025	Dated:	16-01-2025
Crop: Wheat	Denomination of Variety:	Tarnab Rehbar
Type: Registered	Conventional/GMC:	Conventional
OP/Hybrid: OP	Local/Exotic:	Local

As declared

- That Iltaf Ullah, Haneef Raza, Shah Fahad, Dr. Fahim Ullah Khan and Salman Ali

has/have developed new plant variety and also that they are the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

AGRICULTURE RESEARCH INSTITUTE, TARNAB PESHAWAR

ایگریکلچر ریسرچ انسٹیٹیوٹ، ترناب پشاور

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 16th day of January 2025 and expiring on the 15th day of January 2045.



Registrar

Date of Grant 13-11-2025

6. Application No: PBRR-Maize-110/24

Name of the Applicant: Syngenta Crop Protection AG
Institute: Syngenta Crop Protection AG
Name of Breeder(s)/Company: Syngenta Crop Protection AG
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: NK7530
Crop: Maize (*Zea mays* L.)
Type of Variety: Hybrid
Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Origin	Exotic
Type of variety	Hybrid
Comparable Variety	S7328
Maturity Duration	Medium
Plant Length up to Flag leaf	>180 cm (Long)
SEEDLING CHARACTERISTICS	
Seedling length	26.59
Coleoptile's anthocyanin	Absent
First leaf colour	Green
First leaf tip	Round
First leaf length (mm)	4.61
First leaf width (mm)	1.53
STEM CHARACTERISTICS	
Stem length (cm)	223-238
Taller than	NK6253
Shorter than	P3875
Internode length (cm)	14.5
Internode diameter (cm)	2
Mid node anthocyanin	Absent or very weak
Stem tillering	Absent

Stem anthocyanin coloration of brace roots	Present (strong)
LEAF CHARACTERISTICS	
Leaf angle between blade and stem (on leaf just above upper ear)	Wide (>45°)
Curvature of blade (on leaf just above upper ear)	Slightly recurved
Leaf width of blade (leaf of upper ear)	Broad (>9 cm)
TASSEL CHARACTERISTICS	
50% Tassel emergence (Days)	52-54 days
50% Tassel emergence (Days)	Medium (50-55 days)
Anthocyanin coloration at base of glume (middle third of main axis)	Present
Anthocyanin coloration of glume excluding base (middle third of main axis)	Present
Angle between main axis and lateral branches (in lower third of tassel)	Small
Curvature of lateral branches (in lower third of main axis on fresh anthers)	Absent or very slightly recurved
Anthocyanin coloration of anthers (in middle third of main axis on fresh anthers)	Strong
Density of spikelets (in middle third of tassel)	Dense
Tassel angle between main axis and lateral branches (in lower third of tassel)	>45 (Wide)
Earlier than	P4040
Later than	DK-8148
Tassel length (cm)	45-55
Tassel stalk length (cm)	23-26
Exsertion above flag leaf (cm)	7.9-9.3
No. of lateral branches	8-10
Lateral branches density	Semi dense
FLOWER CHARACTERISTICS	
Anther fertility	Normal
Pollen shedding	Heavy
Anther color	Red
Pollen color	Yellow
Glume color	Green

EAR CHARACTERISTICS	
50% silk emergence(days)	54-56 days
Silk color	Yellow
Insertion Height (cm)	105-115
Peduncle length (cm)	3.5-4.9
Ear leafy extensions	Medium
Ear husk length	Long
Ear shape	Conico cylindrical
Ear length (cm)	16.8-20.8
Ear diameter (cm)	4.22-5.05
Seed rows/ ear	16
Seed/row	39
Seed row arrangement	Straight
No. of ears/ plant	One
Ear weight (g)	284
Cob color	White
SEED CHARACTERISTICS	
Seed color	Orange
Seed tip color	Orange
Color of sides	Orange
Seed type	Indented
Seed size	Medium
Seed length (mm)	11.36
Seed width (mm)	8.66
Seed thickness (mm)	4.44
Yeild/ ha. (MT)	10-11
Seed sweetness	Absent
Seed waxiness	Absent
Seed opaqueness	Present



Government of Pakistan
Plant Breeders' Rights Registry

Form PB-10
[See Rule 13(1)]

Serial No. 000099



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No.	99-MZ/110-2024	Dated:	15-04-2024
Crop:	Maize	Denomination of Variety:	NK7530
Type:	Enlisted	Conventional/GMC:	Conventional
OP/Hybrid:	Hybrid	Local/Exotic:	Exotic

As declared

- That Syngenta Crop Protection AG

has/have developed new plant variety and also that they are the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

SYNGENTA CROP PROTECTION AG, SWITZERLAND

سنجینٹا کراپ پروٹیکشن اے جی، سویٹزرلینڈ

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 15th day of April 2024 and expiring on the 14th day of April 2044.



Registrar

Date of Grant 05-12-2025

7. Application No: PBRR-Maize-110/24

Name of the Applicant: Syngenta Crop Protection AG
Institute: Syngenta Crop Protection AG
Name of Breeder(s)/Company: Syngenta Crop Protection AG
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: NK7468
Crop: Maize (*Zea mays* L.)
Type of Variety: Hybrid
Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Origin	Exotic
Type of variety	Hybrid
Comparable Variety	DK-8148
Maturity Duration	Medium
SEEDLING CHARACTERISTICS	
Seedling length	23.59
Coleoptile's anthocyanin	Absent
First leaf colour	Green
First leaf tip	Round
First leaf length (mm)	4.82
First leaf width (mm)	1.64
STEM CHARACTERISTICS	
Stem length (cm)	210-220
Taller than	DK-8148
Shorter than	NK-7530
Internode length (cm)	17.8
Internode diameter (cm)	1.9
Mid node anthocyanin	Absent or very weak
Stem tillering	Absent
Stem anthocyanin coloration of brace roots	Present (Medium)

LEAF CHARACTERISTICS	
Leaf angle between blade and stem (on leaf just above upper ear)	Wide (>45 ⁰)
Curvature of blade (on leaf just above upper ear)	Absent
Leaf width of blade (leaf of upper ear)	Broad (>9 cm)
TASSEL CHARACTERISTICS	
50% Tassel emergence (Days)	50-52 days
50% Tassel emergence (Days)	Medium (50-55 days)
Anthocyanin coloration at base of glume (middle third of main axis)	Present
Anthocyanin coloration of glume excluding base (middle third of main axis)	Present
Angle between main axis and lateral branches (in lower third of tassel)	Small
Curvature of lateral branches (in lower third of main axis on fresh anthers)	Slightly recurved
Anthocyanin coloration of anthers (in middle third of main axis on fresh anthers)	Strong
Density of spikelets (in middle third of tassel)	Dense
Tassel angle between main axis and lateral branches (in lower third of tassel)	>45 (Wide)
Earlier than	P4040
Later than	DK-8148
Tassel length (cm)	40-50
Tassel stalk length (cm)	20-22
Exsertion above flag leaf (cm)	2-3
No. of lateral branches	10-12
Lateral branches density	Semi dense
FLOWER CHARACTERISTICS	
Anther fertility	Normal
Pollen shedding	Heavy
Anther color	Red
Pollen color	Yellow
Glume color	Green
EAR CHARACTERISTICS	

50% silk emergence(days)	52-54 days
Silk color	Pink
Insertion Height (cm)	95-105
Peduncle length (cm)	3.4-5
Ear leafy extensions	Short
Ear husk length	Long
Ear shape	Cylindrical
Ear length (cm)	17.6-20.9
Ear diameter (cm)	4.2-6.1
Seed rows/ ear	16
Seed/row	37
Seed row arrangement	Slightly spiral
No. of ears/ plant	One
Ear weight (g)	251
Cob color	White
SEED CHARACTERISTICS	
Seed color	Orange
Seed tip color	Yellow orange
Color of sides	Orange
Seed type	Indented
Seed size	Medium
Seed length (mm)	11.78
Seed width (mm)	8.75
Seed thickness (mm)	4.61
Seed type	Flint
Seed wax	Absent
Seed size	Medium
Seed weight/ear	208.4
000, seed weight	292
Grain:cob ratio	83-84%
Yeild/ ha. (MT)	10-11

Seed sweetness	Absent
Seed waxiness	Absent
Seed opaqueness	Present

Form PB-10
 [See Rule 13(1)]

Serial No. **000100**



Government of Pakistan Plant Breeders' Rights Registry



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 100-MZ/78-2023	Dated: 03-03-2023	
Crop: Maize	Denomination of Variety: NK7468	
Type: Enlisted	Conventional/GMC: Conventional	
OP/Hybrid: Hybrid	Local/Exotic: Exotic	

As declared

- That Syngenta Crop Protection AG

has/have developed new plant variety and also that they are the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

SYNGENTA CROP PROTECTION AG, SWITZERLAND

سنجنتا کراپ پروٹیکشن اے جی، سویٹزرلینڈ

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of **twenty** years starting from the **03rd** day of **March 2023** and expiring on the **02nd** day of **March 2043**.





Registrar _____

Date of Grant **05-12-2025**

8. Application No: PBRR-SOY-106/24


Name of the Applicant: Crop Science Institute, National Agricultural Research Centre, Islamabad
 Institute: Crop Science Institute, National Agricultural Research Centre, Islamabad
 Name of Breeder(s)/Company: Dr. Haris Khurshid and Dr. Doulat Baig
 Name of Co-breeder(s): Hala Haroon
 Application for: New Plant Variety
 Denomination of Variety: NARC-SOY-2021
 Crop: Soybean (*Glycine max* L.)
 Type of Variety: OPV
 Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
SEEDLING CHARACTERISTICS	
Seedling height (2 weeks) (cm)	13.2
Hypocotyl length (mm)	96
Anthocyanin color	Medium
Cotyledon color	Light yellow
Cotyledon length (mm)	22.2
Cotyledon width (mm)	15.3
Bud pubescence	Medium
PLANT CHARACTERISTICS	
Growth habit	Semi erect
Growth type	Indeterminate
Plant shape	Non bushy
Plant height (cm)	73
Pubescence color	Grey
STEM CHARACTERISTICS	
Stem hairiness	Weak
Stem branching	Strong
No. of branches/main stem	10
No. of nodes/main stem	12

Stem color at flowering	Light green
LEAF CHARACTERISTICS	
Leaf color	Dark green
Leaflet shape	Lanceolate
Leaflet size	Large
Leaflet attitude	Horizontal
Leaf pubescence	Absent
Senescence	Medium
FLOWER CHARACTERISTICS	
Flowering days	31-36
Flower size	Medium
Flower color	Violet
POD CHARACTERISTICS	
Pod color	Brown
Pod size	Medium
Pod setting	High
No. of pods/plant	82-124
No. of seeds/pod	3
Pubescence	Medium
Shattering	Low
SEED CHARACTERISTICS	
Seed shape	Spherical
Seed coat color	Yellow
Coat luster	Dull
Seed size	Medium
Seed diameter (mm)	2.6-3.7
Seed weight (000) (g)	15
Hilum color	Black
Hilum shape	Oval
Cotyledon color	Light yellow
DISTINGUISHING CHARACTERISTICS	Leaves Color: Dark green


	Shape: Narrow long pointed Pod Color: Brown Pubescence: Medium
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Form PB-10
 [See Rule 13(1)]
 Serial No. **000090**



Government of Pakistan

Plant Breeders' Rights Registry



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 90-SOY/106-2024	Dated: 08-01-2024	
Crop: Soybean	Denomination of Variety: NARC-SOY-2021	
Type: Registered	Conventional/GMC: Conventional	
OP/Hybrid: OP	Local/Exotic: Local	

As declared

- That **Dr. Haris Khurshid and Dr. Doulat Baig**


has/have developed new plant variety and also that they are the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

CROP SCIENCES INSTITUTE, NARC, ISLAMABAD

کراپ سائنسز انسٹی ٹیوٹ، این اے آر سی، اسلام آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of **twenty** years starting from the **08th** day of **January 2024** and expiring on the **07th** day of **January 2044**.



Registrar _____

Date of Grant **14-11-2025**

9. Application No: PBRR-Rice-142/25


Name of the Applicant: Nuclear Institute for Agriculture & Biology, Faisalabad
Institute: Nuclear Institute for Agriculture & Biology, Faisalabad
Name of Breeder(s): Dr. Zia-ul-Qamar
Name of Co-breeder(s): Dr. Muhammad Ashraf and Dr. Muhammad Rashid
Application for: New Plant Variety
Denomination of Variety: NIAB HT-18
Crop: Rice (*Oryza sativa* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Seedling colour	L.Green
Coleoptile color	Colorless
Seedling length (cm)	10
Leaf length (cm)	23
Leaf length of blade	Medium
Leaf anthocyanin	Absent
Leaf width (cm)	2
Leaf width	Medium
Leaf pubescence	Spares
Leaf color	Green
Leaf sheath color	Pale green
Leaf senescence	Intermediate
Ligule color	Other
Ligule length (cm)	2.4
Shape	2 cleft
Collar color	Pale green
Flag leaf attitude	Erect
Flag leaf length	20
Flag leaf width	2


Mature stem length (cm)	66
Stem attitude	Erect
Stem thickness (cm)	0.33
Stem stiffness	Semi stiff
Tillers/plant	15-12
Internode color	L. Yellow
No. of nodes/stem	5
Maturity straw color	Straw
Panicle length (cm)	12
Panicle length	Medium
Panicle type	Medium compact
Spikelet density	Semi dense
Spikelets/panicle	110
Branches/panicle	Moderate
Secondary branches	Present
Intensity of secondary branches	Moderate
Attitude of branches	Semi erect
Panicle exertion	Mostly exerted
Panicle curvature of main axes	Semi straight
Awning at maturity	Absent
Awn color at maturity	Straw
Shattering	Very low
Threshability	Easy
Seed awning	Awned
Apiculus color (maturity)	Starw
Husk color	Starw
Husk pigment	Absent
Husk pubescence	Sparse
Pubescence length	Short
Seed shape	Semi crescent
Seed length (mm)	12

Seed width (mm)	2
Seed thickness (mm)	2

Form PB-10
 [See Rule 13(1)]
 Serial No. **000095**



Government of Pakistan Plant Breeders' Rights Registry



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 95-RC/142-2025	Dated: 12-02-2025	
Crop: Rice	Denomination of Variety: NIAB HT-18	
Type: Registered	Conventional/GMC: Conventional	
OP/Hybrid: OP	Local/Exotic: Local	

As declared

- That **Dr. Zia-ul-Qamar**


has/have developed new plant variety and also that he is the true breeder(s).


- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

**NUCLEAR INSTITUTE FOR AGRICULTURE & BIOLOGY,
FAISALABAD**

نیوکلیئر انسٹیٹیوٹ و نارا ایگریکلچرل اینڈ بائیولوجی، فیصل آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of **twenty** years starting from the **12th** day of **February 2025** and expiring on the **11th** day of **February 2045**.




 Registrar _____
 Date of Grant **02-12-2025**

10. Application No: PBRR-Chickpea-138/24

Name of the Applicant: Arid Zone Research Institute, Bhakkar

Institute: Arid Zone Research Institute, Bhakkar

Name of Breeder(s): Dr. Khalid Hussain, Mr. Niaz Hussain, Mr. Abdul Ghaffar, Mr. Mudassar Khaliq, Dr. Muhammad Aslam and Mr. Muneer Abbas

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: TG Striker (TG-1427)

Crop: Chickpea (*Cicer arietenum* L.)

Type of Variety: OPV

Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Planting Time	October to November
Maturity Duration	Medium
Suitable for Sowing	Medium
SEEDLING CHARACTERISTICS	
Seedling length (cm)	4-6.5
Seedling Anthocyanin	Absent
PLANT CHARACTERISTICS	
Growth habit	Semi erect
Plant height (cm)	65-70
Anthocyanin	Medium
Canopy speard	Medium
STEM CHARACTERISTICS	
Stem height (cm)	60-65
Stem color	Green
Stem Hariness	Medium
Stem anthocyanin	Present
No. of primary branches	2-3
No. of secondary branches	13-16

No. of tertiary branches	16-18
LEAF CHARACTERISTICS (leaves on pod-bearing nodes)	
Leaf color	Green
Leaf angle	Semi erect
Rachis length (cm)	4.4
No. of Leaflets	13-15
Leaflet length/width (mm)	14-15/10-12
Leaflet size	Medium
Leaflet tip	Acuminate
Leaf wax	Medium
Leaflet shape	Obovate
Leaf senescence	Medium
FLOWER CHARACTERISTICS	
Days of Flowering	89-90
Flowering Duration	62-63
Flowering Color	Pink
Flower stripes on Standard	Present
Flower size	Medium
Flower number/Peduncle	1
Peduncle length (mm)	20-22
Pedicle anthocyanin	Absent
POD CHARACTERISTICS	
Length/width/thickness(cm)	2.8/1.5/1.7
Pod Size	Medium
Pod shattering	Absent
Beak/mucro length (mm)	3-4
Pods/plant	80-85
Seeds/pod	1-2
SEED CHARACTERISTICS	
Seed color	Brown
Seed Shape	Ram head

Length/width/thickness (mm)	9.5/8.3/8.2
Seed size	Bold
Seed dots	Absent
Testa texture	Rough
Seed ribbing	Absent
Seed weight (g)	28.5-29.4
Seed beak size	Medium
Yeild (kg/ha)	2350-2450
ENVIROMENTAL ADAPTIBILITY	
Flowering response to seasons	Stable
Drought tolerance (Measured as reduction yield)	Medium
Cold tolerance (Measured as reduction in general vigour and productivity after being continuously exposed an average temperature of 15°C for atleast 15 days)	Medium
Heat tolerance (Measured as yeild reduction when continuously exposed to average of 40°C during the flowering period)	Medium
RESISTANCE TO INSECTS/PESTS	Pod borer (<i>Helicoverpa armigera</i>)
RESISTANCE TO DISEASES	Fusarium wilt, Ascochyta Blight
DISTINGUISHING CHARACTERISTICS	Bold seeded, Early maturing, Resistant to terminal heat stress



Government of Pakistan
Plant Breeders' Rights Registry

Form PB-10
[See Rule 13(1)]

Serial No. 000104



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 104-CP/138-2024 Dated: 23-12-2024
Crop: Chickpea Denomination of Variety: TG Striker
Type: Registered Conventional/GMC: Conventional
OP/Hybrid: OP Local/Exotic: Local

As declared

- That Dr. Khalid Hussain, Niaz Hussain, Abdul Ghaffar, Mudassar Khaliq Dr. Muhammad Aslam & Muneer Abbas

has/have developed new plant variety and also that they are the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

ARID ZONE RESEARCH INSTITUTE, BHAKKAR

ایرڈزون ریسرچ انسٹی ٹیوٹ، بھکر

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 23rd day of December 2024 and expiring on the 22nd day of December 2044.



Registrar _____
Date of Grant 05-12-2025

11. Application No: PBRR-Chickpea-93/23

Name of the Applicant: Arid Zone Research Institute, Bhakkar
Institute: Arid Zone Research Institute, Bhakkar
Name of Breeder(s): Mr. Niaz Hussain, Mr. Abdul Ghaffar, Dr. Muhammad Aslam, Mr. Mudassar Khaliq and Dr. Khalid Hussain,
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: Star Channa (TG1305)
Crop: Chickpea (*Cicer arietenum* L.)
Type of Variety: OPV
Name of Initial Variety (in case of EDV): Not Applicable

CHARACTERISTICS	DESCRIPTION
Planting Time	October to November
Maturity Duration	Medium
Suitable for Sowing	Medium
SEEDLING CHARACTERISTICS	
Seedling length (cm)	4.7
Seedling Anthocyanin	Absent
PLANT CHARACTERISTICS	
Growth habit	Semi erect
Plant height (cm)	68-70
Anthocyanin	Medium
Canopy speard	Medium
STEM CHARACTERISTICS	
Stem height (cm)	50-55
Stem color	Green
Stem Hariness	Medium
Stem anthocyanin	Present
No. of primary branches	2-3
No. of secondary branches	12-14

No. of tertiary branches	17-19
LEAF CHARACTERISTICS (leaves on pod-bearing nodes)	
Leaf color	Green
Leaf angle	Semi erect
Rachis length (cm)	4.5
No. of Leaflets	13-15
Leaflet length/width (mm)	13-14/10-12
Leaflet size	Medium
Leaflet tip	Acuminate
Leaf wax	Medium
Leaflet shape	Obovate
Leaf senescence	Medium
FLOWER CHARACTERISTICS	
Days of Flowering	86-88
Flowering Duration	62-64
Flowering Color	Pink
Flower stripes on Standard	Present
Flower size	Medium
Flower number/Peduncle	1
Peduncle length (mm)	22-24
Pedicle anthocyanin	Absent
POD CHARACTERISTICS	
Length/width/thickness(cm)	3/1.4/1.5
Pod Size	Medium
Pod shattering	Absent
Beak/mucro length (mm)	3-4
Pods/plant	80-85
Seeds/pod	1-2
SEED CHARACTERISTICS	
Seed color	Brown
Seed Shape	Ram head

Length/width/thickness (mm)	9.6/8.1/7.9
Seed size	Bold
Seed dots	Absent
Testa texture	Rough
Seed ribbing	Absent
Seed weight (g)	29.5-30
Seed beak size	Medium
Yeild (kg/ha)	2150-2200
ENVIROMENTAL ADAPTIBILITY	
Flowering response to seasons	Stable
Drought tolerance (Measured as reduction yield)	Medium
Cold tolerance (Measured as reduction in general vigour and productivity after being continuously exposed an average temperature of 15°C for atleast 15 days)	Medium
Heat tolerance (Measured as yeild reduction when continuously exposed to average of 40°C during the flowering period)	Medium



Government of Pakistan
Plant Breeders' Rights Registry

Form PB-10
[See Rule 13(1)]

Serial No. 000101



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No.	101-CP/93-2023	Dated:	14-09-2023
Crop:	Chickpea	Denomination of Variety:	Star Channa
Type:	Registered	Conventional/GMC:	Conventional
OP/Hybrid:	OP	Local/Exotic:	Local

As declared

- That Niaz Hussain, Abdul Ghaffar, Dr. Muhammad Aslam, Mudassar Khaliq & Dr. Khalid Hussain
has/have developed new plant variety and also that they are the true breeder(s).
- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

ARID ZONE RESEARCH INSTITUTE, BHAKKAR

ایرڈزون ریسرچ انسٹی ٹیوٹ، بھکر

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 14th day of September 2023 and expiring on the 13th day of September 2043.



Registrar

Date of Grant

05-12-2025

12. Application No: PBRR-Cotton-151/25

Name of the Applicant: Tara Crop Sciences (Pvt) Ltd. Lahore
 Institute: Tara Crop Sciences (Pvt) Ltd. Lahore
 Name of Breeder(s): Dr. Khalid Hameed, Muhammad Shahbaz and Dr. Ahmad Saleem Akhtar
 Name of Co-breeder(s):
 Application for: New Plant Variety
 Denomination of Variety: TARA-224
 Crop: Cotton (*Gossypium hirsutum L.*)
 Type of Variety: OPV


CHARACTERISTICS	DESCRIPTION
Days to maturity	90-100 (50%)
Maturity duration	Medium
Earlier than	MNH 886
Later than	None
Days to opening 50%	102
SEEDLING CHARACTERISTICS	
Seedling length (cm)	3-7
Seedling colour	Green
Foliage spot	Absent
PLANT CHARACTERISTICS	
Growth habit	Spreading
Plant height (cm)	115-160
Plant shape	Spreading
Fruiting branch type	Normal
Monopodia attitude	Horizontal
Sympodia attitude	Horizontal
Nodes to 1st monopodia	4-5
Monopodia/plant	1-3
Sympodia/plant	19-31
Stem pigmentation	Weak

Stem tip hairiness	Sparse
Bud gossypol	Low
LEAF CHARACTERISTICS	
Foliage density	Intermediate
Leaf colour	Green
Leaf length (cm)	11.5-13
Leaf width (cm)	10.5-12
Petiole length (cm)	9-11
Petiole anthocyanin	Absent
Leaf attitude	Horizontal
Leaf type	Normal
Leaf appearance	Cup
Leaf nectaries	Present
Leaf hairiness	Sparse
FLOWER CHARACTERISTICS	
Days to flowering 50%	65
Flowering duration	Medium
Flower size	Medium
Sepal pigmentation	Present
Petal spot	Absent
Nectaries	Present
Petal colour	Creamy
Anther colour	Creamy
Stamen density	Semi dense
Position of stigma	Exserted
Stigma exertion (mm)	9.3-11
Stigma height (mm)	25-30
Calyx size	Intermediate
BOLL CHARACTERISTICS	
Boll bearing habit	Solitary
Boll shape	Round

Boll colour	Green
Boll size (boll width at maximum point)	Medium
Beak size	Short
Boll length (cm)	3.6-4
Boll breadth (cm)	2.8-3
Boll broad at	Middle
Boll surface	Roughly pit
Gossypol	Low
Bracteole length	Medium
Bracteole width	Wide
Bolls/plant	36-58
Boll opening	S.Open
Boll weight (g)	1.6-3.6
Yield (seed cotton) (kg/acre)	2200-2400
Yield (lint) kg/acre	600-800
SEED CHARACTERISTICS	
Seed size	Medium
Seed shape	Obovate
Seed length (mm)	4-7
Seed width (mm)	4-4
Seed index (g)	6.38
Seed coat colour	Dark brown
Seed fuzz	Fuzzy
Fuzz colour	Dusky white
Oil contents (%)	10-16
FIBRE CHARACTERISTICS	
Fibre colour	White
GOT/Lint (%)	38.8
Staple length (mm)	26.9
Fineness (micronaire)	4.1 ($\mu\text{g}/\text{inch}$)
Fibre strength (tppsi)	27.4(g/tex)


Uniformity (%)	79.9
Fibre length group	Medium long

Form PB-10
 [See Rule 13(1)]
 Serial No. **000091**



Government of Pakistan

Plant Breeders' Rights Registry



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 91-COT/151-2025	Dated: 10-03-2025	
Crop: Cotton	Denomination of Variety: TARA-224	
Type: New Plant Variety	Conventional/GMC: GMO	
OP/Hybrid: OP	Local/Exotic: Local	


As declared

- That **Dr. Khalid Hameed, Muhammad Shahbaz and Dr. Ahmad Saleem Akhtar** has/have developed new plant variety and also that they are the true breeder(s).
- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

TARA CROP SCIENCES (PRIVATE) LIMITED, LAHORE

تارا کراپ سائنسز (پرائیویٹ) لمیٹڈ، لاہور

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of **twenty** years starting from the **10th** day of **March 2025** and expiring on the **09th** day of **March 2045**.



Registrar _____

Date of Grant **14-11-2025**

13. Application No: PBRR-Wheat-157/25

Name of the Applicant: Wheat Research Institute, Faisalabad

Institute: Wheat Research Institute, Faisalabad

Name of Breeder(s): Dr. Aziz-ur-Rehman, Dr. Nadeem Ahmad, Mr. Muhammad Zulkiffal, Dr. Muhammad Sarwar, Mr. Muhammad Owais, Mr. Majid Nadeem, Mr. Muhammad Hammad Tanveer and Mrs. Sadia Ajmal

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: Falak-24

Crop: Wheat (*Triticum aestivum* L.)

Type of Variety: OPV

CHARACTERISTICS	DESCRIPTION
Maturity Duration	Early to Medium
Comparable variety	Akbar-19
SEEDLING CHARACTERISTICS	
Growth habit	Semi erect
Coleoptile color	Absent
Seedling anthocyanin	White
PLANT CHARACTERISTICS	
Plant height (cm)	96-105
Color booting stage	Green
STEM CHARACTERISTICS	
Stem anthocyanin (at flowering)	Absent
Stem waxy bloom	Weak
Stem wall thickness	Intermediate
Stem stiffness	Intermediate
Stem diameter (mm)	4.5-5.0
Peduncle length cm	34-35.5
Productive tillers/m	350-400

Nodes/Stem	3-4
Straw Color	Yellow white
Lodging	Low
FLAG LEAF CHARACTERISTICS	
Flag leaf attitude	Semi erect
Flag leaf twist	Medium
Flag leaf Length (cm)	28-30
Flag leaf Width (cm)	2.3-2.5
Flag leaf Sheath wax	Weak
Sheath hairiness	Absent
Auricle hairiness	Sparse
Auricle anthocyanin	Absent
EAR CHARACTERISTICS	
Ear emergence	100-105
Ear size	Medium
Length (cm)	12-13
Width (cm)	1.5-1.8
Color at maturity	Yellowish white
Ear shape	Tapering
Ear density	Medium dense
Super numerary spikelets	Absent
Speltoids	Absent
Shattering	Resistant
Ear kink/twist	Medium
Ear Awnedness	Awned
Awn distribution	Whole
Awn length	Long
Awn color	Yellowish white
Awn habit	Erect
Anther Color	Yellow
Rachis hairs apical	Sparse

Rachis hairs margin	Sparse
Rachis length (cm)	11.5-12.5
Rachis width (mm)	3.5-4.0
No. of segments	19-21
GLUME CHARACTERISTICS	
Glume length (mm)	10.5-11
Glume width (mm)	3.5-4.5
Glume length Size	Medium
Glume width size	Medium
Lower glume shape	Narrow humped
Glume attachment	Medium
Glume Pubescence	Absent
Glume surface	Rough
Lower glume shoulder shape	Slopping
Lower glume shoulder width	Narrow
Beak length (mm)	6-6.5
Lower glume beak shape	Short/ straight
Lower glume Beak Size	Long
Beak spicules	Present
Keel spicules	1
Glume internal hair	Sparse
SEED CHARACTERISTICS	
Seed color	Amber
Seed surface	Opaque
Seed shape	Oval
Seed length mm	6.5-7.2
Seed width mm	3.8-4.2
Seed Thickness mm	3-3.2
Seed size	Medium
Seed brush	Short
Seed Germ size	Medium

1000 seed weight	40-46
Seed groove	Intermediate
Seed/ Ear	55-60
Seed hardness	Medium
Protein%	13-15
Chapati quality	Good
Yield (kg/ ha)	7400-7600
ENVIRONMENTAL ADAPTABILITY	
Flowering response to season	Stable
Drought tolerance	Medium
Tolerance to salinity	Medium
Tolerance to acidic soils	Medium
Cold tolerance	Medium
Heat tolerance	Least tolerant
RESISTANCE TO INSECTS/ PEST	
Lodging	Resistant
Shattering	Resistant
Stem rust	Resistant
Leaf rust	Resistant
Stripe rust	Resistant



Government of Pakistan
Plant Breeders' Rights Registry

Form PB-10
[See Rule 13(1)]

Serial No. 000088



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No.	88-WT/157-2025	Dated:	14-04-2025
Crop:	Wheat	Denomination of Variety:	Falak-24
Type:	Registered	Conventional/GMC:	Conventional
OP/Hybrid:	OP	Local/Exotic:	Local

As declared

- That Dr. Javed Ahmad, Dr. Aziz-ur-Rehman, Dr. Nadeem Ahmad, Muhammad Zulkiffal, Dr. Muhammad Sarwar, Muhammad Owais, Majid Nadeem, Muhammad Hammad Tanveer and Sadia Ajmal has/have developed new plant variety and also that they are the true breeder(s).
- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

WHEAT RESEARCH INSTITUTE, AARI, FAISALABAD

وہیٹ ریسرچ انسٹیٹیوٹ، اے اے آر آئی، فیصل آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 14th day of April 2025 and expiring on the 13th day of April 2045.



Registrar

Date of Grant 13-11-2025

14. Application No: PBRR-Wheat-156/25

Name of the Applicant: Wheat Research Institute, Faisalabad

Institute: Wheat Research Institute, Faisalabad

Name of Breeder(s): Dr. Javed Ahmad, Dr. Aziz-ur-Rehman, Dr. Nadeem Ahmad, Mr. Muhammad Zulkiffal, Dr. Muhammad Sarwar, Mr. Muhammad Owais, Mr. Majid Nadeem, Mr. Muhammad Hammad Tanveer and Mrs. Sadia Ajmal

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: Sawera-24

Crop: Wheat (*Triticum aestivum* L.)

Type of Variety: OPV

CHARACTERISTICS	DESCRIPTION
Maturity Duration	Early to Medium
Comparable variety	Akbar-19
SEEDLING CHARACTERISTICS	
Growth habit	Semi erect
Coleoptile color	Absent
Seedling anthocyanin	White
PLANT CHARACTERISTICS	
Plant height (cm)	90-100
Color booting stage	Green
STEM CHARACTERISTICS	
Stem anthocyanin (at flowering)	Absent
Stem waxy bloom	Medium
Stem wall thickness	Intermediate
Stem stiffness	Intermediate
Stem diameter (mm)	4.2-4.5
Peduncle length (cm)	30-36
Productive tillers/m	360-400

Nodes/Stem	4-5
Straw Color	Yellow white
Lodging	Low
FLAG LEAF CHARACTERISTICS	
Flag leaf attitude	Semi erect
Flag leaf twist	Medium
Flag leaf Length (cm)	29-34.5
Flag leaf Width (cm)	2.0-2.2
Flag leaf Sheath wax	Medium
Sheath hairiness	Absent
Auricle hairiness	Sparse
Auricle anthocyanin	Absent
EAR CHARACTERISTICS	
Ear emergence	100-105
Ear size	Medium
Length (cm)	12-13
Width (cm)	1.3-1.5
Color at maturity	Yellowish white
Ear shape	Tapering
Ear density	Medium dense
Super numerary spikelets	Absent
Speltoids	Absent
Shattering	Resistant
Ear kink/twist	Medium
Ear Awnedness	Awned
Awn distribution	Whole
Awn length	Long
Awn color	Yellowish white
Awn habit	Divaricate
Anther Color	Yellow
Rachis hairs apical	Sparse

Rachis hairs margin	Sparse
Rachis length (cm)	10-12
Rachis width (mm)	3.5-4.2
No. of segments	17-19
GLUME CHARACTERISTICS	
Glume length (mm)	10.1-10.3
Glume width (mm)	3.8-4.1
Glume length Size	Medium
Glume width size	Medium
Lower glume shape	Narrow humped
Glume attachment	Medium
Glume Pubescence	Absent
Glume surface	Rough
Lower glume shoulder shape	Sloping
Lower glume shoulder width	Narrow
Beak length (mm)	2.5-2.8
Lower glume beak shape	Short/ straight
Lower glume Beak Size	Medium
Beak spicules	Present
Keel spicules	1
Glume internal hair	Sparse
SEED CHARACTERISTICS	
Seed color	Amber
Seed surface	Opaque
Seed shape	Oval
Seed length (mm)	6.5-7
Seed width (mm)	3-4
Seed Thickness (mm)	3-3.2
Seed size	Medium
Seed brush	Short
Seed Germ size	Medium

1000 seed weight	40-42
Seed groove	Shallow
Seed/ Ear	57-63
Seed hardness	Soft
Protein%	13-15
Chapati quality	Good
Yield (kg/ ha)	7600-7800
Environmental Adaptability	
Flowering response to season	Stable
Drought tolerance	Medium
Tolerance to salinity	Medium
Tolerance to acidic soils	Medium
Cold tolerance	Medium
Heat tolerance	Least tolerant
Resistance to Insects/ Pest	
Lodging	Resistant
Shattering	Resistant
Stem rust	Resistant
Leaf rust	Resistant
Stripe rust	Resistant



Government of Pakistan
Plant Breeders' Rights Registry

Form PB-10
[See Rule 13(1)]

Serial No. 000098



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No.	98-WT/156-2025	Dated:	14-04-2025
Crop:	Wheat	Denomination of Variety:	Sawera-24
Type:	Registered	Conventional/GMC:	Conventional
OP/Hybrid:	OP	Local/Exotic:	Local

As declared

- That Dr. Javed Ahmad, Dr. Aziz-ur-Rehman, Dr. Nadeem Ahmad, Muhammad Zulkiffal, Dr. Muhammad Sarwar, Muhammad Owais, Majid Nadeem, Muhammad Hammad Tanveer and Sadia Ajmal has/have developed new plant variety and also that they are the true breeder(s).
- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

WHEAT RESEARCH INSTITUTE, AARI, FAISALABAD

وہیٹ ریسرچ انسٹی ٹیوٹ، اے اے آر آئی، فیصل آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 14th day of April 2025 and expiring on the 13th day of April 2045.



Registrar

Date of Grant 05-12-2025

15. Application No: PBRR-Wheat-155/25

Name of the Applicant: Executive Director, Wheat Research Centre Sakrand, District Shaheed Benazirabad

Institute: Executive Director, Wheat Research Centre Sakrand, District Shaheed Benazirabad

Name of Breeder(s): Imdad Ali Vistro, Dr. Muhammad Ismail Lashari, Rub Dino Keerio and Jay Kumar

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: IV-3

Crop: Wheat (*Triticum aestivum* L.)

Type of Variety: OPV

CHARACTERISTICS	DESCRIPTION
Maturity Duration	Medium
Days to maturity	125-127 days
SEEDLING CHARACTERISTICS	
Growth habit	Semi erect
Seedling anthocyanin	Absent
PLANT CHARACTERISTICS	
Plant height (cm)	98
Color booting stage	Blue
STEM CHARACTERISTICS	
Stem anthocyanin (at flowering)	Absent
Stem waxy bloom	Strong
Stem wall thickness	Very thick
Stem stiffness	Stiff
Stem diameter (mm)	3.5
Peduncle length cm	3.8
Productive tillers/m	540
Nodes/Stem	3-4
Straw Color	Yellow white
Lodging	Absent

FLAG LEAF CHARACTERISTICS	
Flag leaf attitude	Semi erect
Flag leaf twist	Medium
Flag leaf Length (cm)	21-22
Flag leaf Width (cm)	2
Flag leaf Sheath wax	Very strong
Sheath hairiness	Medium
Auricle hairiness	Sparse
Auricle anthocyanin	Absent
EAR CHARACTERISTICS	
Ear emergence	78
Ear size	Medium
Ear Length (cm)	10-11
Ear Width (cm)	1.0
Wax at anthesis	Strong
Color at maturity	Yellowish white
Ear shape	Tapering
Ear density	Dense
Super numerary spikelets	Absent
Speltoids	Absent
Shattering	Resistant
Ear kink/twist	Medium
Ear Awnedness	Awned
Awn distribution	Whole
Awn length	Medium
Awn color	White
Awn habit	Erect
Anther Color	Yellow
Rachis hairs apical	Profuse
Rachis hairs margin	Profuse
Rachis length (cm)	13.5

Rachis width (mm)	0.5
No. of segments	19
GLUME CHARACTERISTICS	
Glume length (mm)	15
Glume width (mm)	5
Glume length Size	Medium
Glume width size	Wide
Lower glume shape	Narrow humped
Glume attachment	Strong
Glume Pubescence	Absent
Glume surface	Smooth
Lower glume shoulder shape	Indented
Lower glume shoulder width	Medium
Beak length (mm)	4
Lower glume beak shape	Curved & humped
Lower glume Beak Size	Medium
Beak spicules	Present
Keel spicules	3
Glume internal hair	Absent
Glume internal impression	Large
SEED CHARACTERISTICS	
Seed color	Amber
Seed surface	Opaque
Seed shape	Ovate
Seed length mm	0.2
Seed width mm	0.1
Seed Thickness (mm)	0.2
Seed size	Bold
Seed brush	Medium
Seed Germ size	Medium
1000 seed weight	60

Seed groove	Deep
Seeds/ Ear head	70 grains
Seed hardness	Hard
Protein%	10.8
Chapati quality	Good
Bread quality	Good
Phenol reaction	None
Yield Characteristics	
Average Yield (mds/ acre)	65
Potential Yield (mds/ ha)	185
Potential Yield (mds/ acre)	75
Potential Yield (kg/ acre)	3000
Potential Yield (kg/ ha)	7413
Average Yield (kg/ acre)	2600
Resistance	
Stem rust	Resistant
Stripe rust	Resistant
Loose smut	Resistant
Kernel bunt	Resistant
Variants	Resistant
Distinctness	Plants are blue green in colour



Government of Pakistan
Plant Breeders' Rights Registry

Form PB-10
[See Rule 13(1)]

Serial No. 000092



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No.	92-WT/155-2025	Dated:	08-04-2025
Crop:	Wheat	Denomination of Variety:	IV-3
Type:	New Plant Variety	Conventional/GMC:	Conventional
OP/Hybrid:	OP	Local/Exotic:	Local

As declared

- That Imdad Ali Vistro, Muhammad Ismail Lashari, Rub Dino Keerio and Jay Kumar has/have developed new plant variety and also that they are the true breeder(s).
- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

WHEAT RESEARCH CENTRE, SAKRAND

وہیٹ ریسرچ سنٹر، سکرانڈ

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 08th day of April 2025 and expiring on the 07th day of April 2045.



Registrar

Date of Grant 20-11-2025

16. Application No: PBRR-Cucumber-126/24

Name of the Applicant: YUKSEL SEEDS ASIA (PRIVATE) LIMITED
Institute: YUKSEL TOHUM ANTALYA, TURKEY
Name of Breeder(s):
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: YK-99
Crop: Cucumber (*Cucumis sativus* L.)
Type of Variety: Inbred line

CHARACTERISTICS	DESCRIPTION
SEEDLING CHARACTERISTICS	
Cotyledon: bitterness (absent, present)	Absent
PLANT CHARACTERISTICS	
Plant vigour (weak, medium, strong)	Medium
Plant: growth type (determinate, indeterminate)	Indeterminate
Foliage density (weak, medium, strong)	Medium
STEM CHARACTERISTICS	
Total length of first 15 internodes (very short, short, medium, long, very long)	Short
Stem thickness (mm)	7.68
Stem hairiness (sparse, medium, profuse)	Medium
LEAF CHARACTERISTICS	
Leaf blade: attitude (erect, horizontal, drooping)	Horizontal
Leaf blade: length (short, medium, long)	Long
Length of terminal lobe (cm)	13.80
Leaf blade: ratio length of terminal lobe / length of blade (very small, small, medium, large, very large)	Large
Leaf blade: shape of apex of terminal lobe (acute, right-angled, obtuse, rounded)	Right-angled
Leaf blade: intensity of green colour (light, medium, dark, very dark)	Dark
Leaf blade: blistering (weak, medium, strong, very strong)	Weak
Leaf blade: undulation of margin (absent or weak, moderate, strong)	Moderate

Leaf blade: dentation of margin (very weak, weak, medium, strong, very strong)	Medium
Leaf width (cm)	24.55
Leaf pubescence (sparse, medium, profuse)	Medium
FLOWER CHARACTERISTICS	
Plant: sex expression (monoecious, subgynoecious, gynoecious, hermaphroditic)	Gynoecious
Bisexual flowers (absent, present)	Absent
Parthenocarpy (absent, present)	Present
Plant: number of female flowers per node (predominantly one, predominantly one or two, predominantly two, predominantly two or three, predominantly three or four, predominantly four or five, predominantly more than five)	Predominantly three or four
No. of female flowers/node (1–3, more than three)	More than three
Ovary: colour of vestiture (white, black)	White
Parthenocarpy (absent, present)	Present
Flower colour (white, light yellow, yellow, orange)	Yellow
Petal length (cm)	2.50
FRUIT CHARACTERISTICS	
Fruit: length (very short, short, medium, long, very long)	Very short
Fruit: diameter (small, medium, large)	Large
Fruit: ratio length/diameter (very small, small, medium, large, very large)	Very small
Fruit: shape in transverse section (round, round to angular, angular)	Round
Fruit: shape of stem end (necked, acute, obtuse)	Obtuse
Fruit: shape of calyx end (acute, obtuse, rounded, truncate)	Rounded
Fruit: ground colour of skin at market stage (white, yellow, green)	Green
Excluding white varieties: fruit: intensity of ground colour of skin (light, medium, dark; as for 35)	Dark
Fruit: ribs (absent or weak, medium, high)	Weak
Fruit: sutures (absent, present)	Absent
Fruit: creasing (absent, present)	Present
Fruit: degree of creasing (very weak, weak, medium, strong, very strong)	Weak
Fruit: type of vestiture (hairs only, hairs and prickles, prickles only)	Hairs only
Fruit: warts (absent, present)	Absent

Fruit: length of stripes (absent or very short, short, medium, long, very long)	Medium
Fruit streaks (low, medium, high)	Low
Fruit: dots (absent, present)	Absent
Fruit: glaucosity (absent or weak, weak, medium, strong, very strong)	Weak
Fruit: length of peduncle (short, medium, long)	Long
Fruit: ground colour of skin at physiological ripeness (white, yellow, green, orange, brown)	Greenish yellow
Fruit surface (smooth, rough, wrinkled)	Rough
Fruit mottling (absent, present)	Absent
Fruit bitterness (absent, present)	Absent
SEED CHARACTERISTICS	
Seed colour (white, yellow, yellowish white)	Yellowish white
Seed shape (narrow elliptic, elliptic, broad elliptic)	Narrow elliptic
Seed size (small, medium, bold)	Medium
Seed length (mm)	9.46
Seed width (mm)	3.81
1000, seed weight (g)	27.3
ENVIRONMENTAL ADAPTABILITY	
Flowering response to seasons	Variable
Drought tolerance (measured as reduction in yield)	Medium
Tolerance to salinity (measured as reduction in plant height 30 days after sowing)	Medium
Tolerance to acid soils (measured as reduction in plant height 30 days after sowing)	Medium
Cold tolerance (measured as reduction in general vigour and productivity after being continuously exposed to an average temperature of 15 °C for at least 15 days)	Least tolerant
Heat tolerance (measured as yield reduction when continuously exposed to average of 40 °C during the flowering period)	Mostly tolerant
RESISTANCE TO INSECTS/PESTS	Medium
RESISTANCE TO DISEASES	Medium
DISTINGUISHING CHARACTERISTICS	
	1. Plant growth stops at a medium height soon after pollination and fruit setting

2. Long sepals of female flower
3. Thick fruit with short length
4. Short and thick ovary

Form PB-10
[See Rule 13(1)]

Serial No. **000103**

**Government of Pakistan**
Plant Breeders' Rights Registry

CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No. 103-CUC/126-2024	Dated: 17-10-2024
Crop: Cucumber	Denomination of Variety: YK-99
Type: New	Conventional/GMC: Conventional
OP/Hybrid: Inbred line	Local/Exotic: Exotic

As declared

- That Yuksel Seeds Asia Private Limited

has/have developed new plant variety and also that they are the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

YUKSEL SEEDS ASIA PRIVATE LIMITED, FAISALABAD
يگسل سیڈز ایشیا پرائیویٹ لمیٹڈ، فیصل آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 17th day of October 2024 and expiring on the 16th day of October 2044.




Registrar _____
Date of Grant 05-12-2025 _____

17. Application No: PBRR-Cucumber-126/24

Name of the Applicant: YUKSEL SEEDS ASIA (PRIVATE) LIMITED
 Institute: YUKSEL TOHUM ANTALYA, TURKEY
 Name of Breeder(s):
 Name of Co-breeder(s):
 Application for: New Plant Variety
 Denomination of Variety: YK-11
 Crop: Cucumber (*Cucumis sativus* L.)
 Type of Variety: Inbred line

CHARACTERISTICS	DESCRIPTION
SEEDLING CHARACTERISTICS	
Cotyledon: bitterness (absent, present)	Absent
PLANT CHARACTERISTICS	
Plant vigour (weak, medium, strong)	Strong
Plant: growth type (determinate, indeterminate)	Indeterminate
Foliage density (weak, medium, strong)	Medium
STEM CHARACTERISTICS	
Total length of first 15 internodes (very short, short, medium, long, very long)	Short
Stem thickness (mm)	7.71
Stem hairiness (sparse, medium, profuse)	Medium
LEAF CHARACTERISTICS	
Leaf blade: attitude (erect, horizontal, drooping)	Horizontal
Leaf blade: length (short, medium, long)	Medium
Length of terminal lobe (cm)	14.30
Leaf blade: ratio length of terminal lobe / length of blade (very small, small, medium, large, very large)	Medium
Leaf blade: shape of apex of terminal lobe (acute, right-angled, obtuse, rounded)	Right-angled
Leaf blade: intensity of green colour (light, medium, dark, very dark)	Dark
Leaf blade: blistering (weak, medium, strong, very strong)	Absent or weak
Leaf blade: undulation of margin (absent or weak, moderate, strong)	Moderate
Leaf blade: dentation of margin (very weak, weak, medium, strong, very strong)	Medium

Leaf width (cm)	25.70
Leaf pubescence (sparse, medium, profuse)	Medium
FLOWER CHARACTERISTICS	
Plant: sex expression (monoecious, subgynoecious, gynoecious, hermaphroditic)	Gynoecious
Bisexual flowers (absent, present)	Absent
Parthenocarpy (absent, present)	Present
Plant: number of female flowers per node (predominantly one, predominantly one or two, predominantly two, predominantly two or three, predominantly three or four, predominantly four or five, predominantly more than five)	Predominantly two or three
No. of female flowers/node (1–3, more than three)	More than three
Ovary: colour of vestiture (white, black)	White
Parthenocarpy (absent, present)	Present
Flower colour (white, light yellow, yellow, orange)	Yellow
Petal length (cm)	2.40
FRUIT CHARACTERISTICS	
Fruit: length (very short, short, medium, long, very long)	Very short
Fruit: diameter (small, medium, large)	Large
Fruit: ratio length/diameter (very small, small, medium, large, very large)	Very small
Fruit: shape in transverse section (round, round to angular, angular)	Round
Fruit: shape of stem end (necked, acute, obtuse)	Obtuse
Fruit: shape of calyx end (acute, obtuse, rounded, truncate)	Rounded
Fruit: ground colour of skin at market stage (white, yellow, green)	Green
Excluding white varieties: fruit: intensity of ground colour of skin (light, medium, dark; as for 35)	Dark
Fruit: ribs (absent or weak, medium, high)	Absent
Fruit: sutures (absent, present)	Absent
Fruit: creasing (absent, present)	Present
Fruit: degree of creasing (very weak, weak, medium, strong, very strong)	Very weak
Fruit: type of vestiture (hairs only, hairs and prickles, prickles only)	Hairs only
Fruit: warts (absent, present)	Absent
Fruit: length of stripes (absent or very short, short, medium, long, very long)	Short

Fruit streaks (low, medium, high)	Low
Fruit: dots (absent, present)	Absent
Fruit: glucosity (absent or weak, weak, medium, strong, very strong)	Weak
Fruit: length of peduncle (short, medium, long)	Long
Fruit: ground colour of skin at physiological ripeness (white, yellow, green, orange, brown)	Yellow
Fruit surface (smooth, rough, wrinkled)	Rough
Fruit mottling (absent, present)	Absent
Fruit bitterness (absent, present)	Absent
SEED CHARACTERISTICS	
Seed colour (white, yellow, yellowish white)	Yellowish white
Seed shape (narrow elliptic, elliptic, broad elliptic)	Elliptic
Seed size (small, medium, bold)	Medium
Seed length (mm)	9.11
Seed width (mm)	3.64
000, seed weight (g)	21.5
ENVIRONMENTAL ADATIBILITY	
Flowering response to seasons	Variable
Drought tolerance (measured as reduction in yield)	Medium
Tolerance to salinity (measured as reduction in plant height 30 days after sowing)	Medium
Tolerance to acid soils (measured as reduction in plant height 30 days after sowing)	Medium
Cold tolerance (measured as reduction in general vigour and productivity after being continuously exposed to an average temperature of 15 °C for at least 15 days)	Medium
Heat tolerance (measured as yield reduction when continuously exposed to average of 40 °C during the flowering period)	Medium
RESISTANCE TO INSECTS/PESTS	Medium
RESISTANCE TO DISEASES	Medium
DISTINGUISHING CHARACTERISTICS	Medium
	1. Plant growth remains prolonged and continues even after pollination and fruit setting 2. Medium plant height 3. Broad leaves

	4. Densely haired dark green leaves with long petiole 5. 2-3 fruits per node.
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Form PB-10
[See Rule 13(1)]

Serial No. **000102**

Government of Pakistan Plant Breeders' Rights Registry



CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No.	102-CUC/118-2024	Dated:	17-10-2024
Crop:	Cucumber	Denomination of Variety:	YK-11
Type:	New	Conventional/GMC:	Conventional
OP/Hybrid:	Inbred line	Local/Exotic:	Exotic

As declared

- That Yuksel Seeds Asia Private Limited

has/have developed new plant variety and also that they are the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

YUKSEL SEEDS ASIA PRIVATE LIMITED, FAISALABAD

يوكسل سيڈز ايشيا پرائيوٹ ليٲٲڈ، فيصل آباد

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 17th day of October 2024 and expiring on the 16th day of October 2044.



Registrar _____
Date of Grant 05-12-2025

18. Application No: PBRR-Cotton-11/21

Name of the Applicant: Lucky Core Industries (LCI), Formerly ICI
Pakistan Limited
Institute: Lucky Core Industries (LCI) Research Station,
Multan
Name of Breeder(s):
Name of Co-breeder(s):
Application for: New Plant Variety
Denomination of Variety: ICI-2424
Crop: Cotton (*Gossypium hirsutum* L.)
Type of Variety: OPV

CHARACTERISTICS	DESCRIPTION
Maturity duration	Medium
Earlier than	IUB-2013
Days to opening 50%	115
SEEDLING CHARACTERISTICS	
Seedling length (cm)	8
Seedling colour	Green
Foliage spot	Absent
PLANT CHARACTERISTICS	
Growth habit	Compact
Plant height (cm)	124
Plant shape	Cylindrical to Conical
Fruiting branch type	Short
Monopodia attitude	S. erect
Sympodia attitude	S. erect
Nodes to 1st monopodia	5-6
Monopodia/plant	0-2
Sympodia/plant	24-29
Stem pigmentation	Medium
Stem tip hairiness	Medium
Bud gossypol	Normal

LEAF CHARACTERISTICS	
Foliage density	Intermediate
Leaf colour	Green
Leaf length (cm)	9.2
Leaf width (cm)	14.13
Petiole length (cm)	10.5
Petiole anthocyanin	Present
Leaf attitude	S. erect
Leaf type	Normal
Leaf appearance	Flat
Leaf nectaries	Present
Leaf hairiness	Medium
FLOWER CHARACTERISTICS	
Days to flowering 50%	60-63
Flowering duration	Medium
Flower size	Medium
Sepal pigmentation	Present
Petal spot	Absent
Nectaries	Present
Petal colour	Creamy
Anther colour	Creamy
Stamen density	Dense
Position of stigma	Exserted
Stigma exertion (mm)	2.3
Stigma height (mm)	17.22
Calyx size	Intermediate
BOLL CHARACTERISTICS	
Boll bearing habit	Clustered
Boll shape	Roundish
Boll colour	Green
Boll size (boll width at maximum point)	Medium

Beak size	Short
Boll length (cm)	3.86
Boll breadth (cm)	3.15
Boll broad at	Middle
Peduncle length (cm)	1.7
Boll surface	Smooth
Gossypol	Normal
Bracteole length	Medium
Bracteole width	Medium
Bolls/plant	28-36
Boll opening	Open
Boll weight (g)	3.3
SEED CHARACTERISTICS	
Seed size	Medium
Seed shape	Semi Orbicular
Seed length (mm)	8
Seed width (mm)	5
Seed index (g)	7.97
Seed coat colour	Brown
Seed fuzz	Fuzzy
Fuzz colour	Dusky White
FIBRE CHARACTERISTICS	
Fibre colour	White
GOT/Lint (%)	41
Staple length (mm)	28.9
Fineness (micronaire)	4.6
Fibre strength (tppsi)	28.5
Lint index (g)	5.73
Uniformity (%)	49.98
Fibre length group	Long
ENVIRONMENTAL ADAPTABILITY	

Flowering response to seasons	Stable
Drought tolerance (Measured as reduction in yeild)	Most tolerant
Tolerance to salinty (Measured by reduction in plant height 30 days after sowing)	Most tolerant
Tolerance to acid soils (Measured as reduction in plant height 30 days after sowing)	Most tolerant
Cold tolerance (Measured as reduction in general vigour and productivity after being continuously exposed to an average temperature of 15 °C for at least 15 days)	Medium
Heat tolerance (Measured as yield reduction when continuously exposed to average of 40 °C during the flowering period)	Most tolerant
RESISTANCE TO INSECT/PEST	Resistant to American and other bollworms tolerant to sucking complex
RESISTANCE TO DISEASE	High CLCV tolerance
DISTINGUISHING CHARACTERISTICS	4-5 locules are common Requires three irrigations less than normal with no effect on yield. Long staple (30.03 mm) as evaluated by four labs.



Form PB-10
[See Rule 13(1)]

Serial No. **000093**



Government of Pakistan Plant Breeders' Rights Registry

CERTIFICATE OF PLANT VARIETY PROTECTION

Registration No.	93-COT/11-2021	Dated:	19-04-2021
Crop:	Cotton	Denomination of Variety:	ICI-2424
Type:	Registered	Conventional/GMC:	GMO
OP/Hybrid:	OP	Local/Exotic:	Local

As declared

- That Abdul Razaque Soomro and Waqas Ahmad

has/have developed new plant variety and also that they are the true breeder(s).

- By virtue of an application that has been made to grant plant variety protection rights and that plant variety has particularly been described with respect to its distinctive features and a suitable denomination.
- There is no objection to grant plant variety protection rights of the said variety under the Plant Breeders' Rights Act, 2016 in favour of:

LUCKY CORE INDUSTRIES (LCI), LAHORE

کلی کور انڈسٹریز (ایل سی آئی)، لاہور

By virtue of this certificate, the above mentioned owner(s) of the rights have under the Plant Breeders' Rights Act, 2016, the exclusive right to produce, sell, market, distribute, import or export the variety (seed) or propagating material for a term of twenty years starting from the 19th day of April 2021 and expiring on the 18th day of April 2041.



Registrar

Date of Grant 21-11-2025

NEWS AND EVENTS

NO FOOD SECURITY-WITHOUT INNOVATION

Federal Minister for National Food Security and Research Rana Tanveer Hussain, during his address at the Lahore Chamber of Commerce and Industry Pakistan, said that agricultural productivity remains alarmingly low and urgently requires improvement through targeted investment in research and innovation. Both the government and private sector must collaborate actively with the government committing financial support to institutions and initiatives advancing agricultural research. Central to this transformation is the development and dissemination of high-quality, climate-resilient seeds, which are widely regarded as the foundation for sustainable productivity gains.

INCREASE IN WHEAT SUPPORT PRICE

The government has raised the minimum support price (MSP) for wheat to Rs. 3,500 per maund to support the farming community. The move is expected to ensure food security by encouraging wheat production. A reasonable support price was demanded by the farmers to sustain their farm income.

KINNOW EXPORT

Pakistan has exported 6,000 tonnes of kinnow to the Middle East and Asia, marking the start of a season. Pakistan Fruit and Vegetable Exporters and Merchants Association (PFVA) aim to achieve the export of 300,000 tonnes and generate \$110 million in revenue. Although a bumper crop of 2.7 million tonnes is expected this year with a significant increase over last year's 1.7 million tonnes, PFVA Patron-in-Chief Waheed Ahmed warned that exports remain 50% lower than levels seen five years ago. He attributed this long-term decline to a lack of R&D and a continued reliance on outdated citrus varieties that are struggling against modern environmental challenges.

SHRINKING AGRICULTURAL SECTOR

Pakistan's 2025 Agricultural Census reveals structural weaknesses, with overreliance on wheat creating systemic vulnerability. Seven interconnected crises threaten a "seven lean years" scenario i.e. (i) Water scarcity: declining per capita availability and unsustainable use in wheat farming. (ii) Soil degradation: nutrient depletion and salinity from monocropping. (iii) Climate risks: heat stress and erratic rainfall reducing yields. (iv) Input dependency:

diminishing returns on subsidized fertilizers and rising farmer debt. (v) Loss of diversity – collapse of traditional crops and genetic uniformity in wheat. (vi) Land fragmentation: shrinking farm sizes and insecure tenancy limiting investment. (vii) Policy distortions: subsidies and procurement favoring wheat over more sustainable or profitable alternatives.

REVIVAL OF COTTON

Ministry of National Food Security & Research (MNFS&R) presented a revival plan for cotton production in Pakistan in a meeting chaired by Deputy Prime Minister of Pakistan Senator Ishaq Dar. The inter-ministerial session was also attended by the All-Pakistan Textile Mills Association (APTMA). The factors effecting the cotton production were discussed in details. It was proposed that the cotton Cess shall be collected through the Federal Board of Revenue and used for R&D of cotton crop. The role and participation of the APTMA will get increased in policy making forums. The forum was informed that merger of the Pakistan Central Cotton Committee (PCCC) with the Pakistan Agriculture Research Council (PARC) is in process. The merger is expected to boost the R&D activities in cotton sector of Pakistan.

CHANGING CLIMATE AND AGRICULTURE

A report by FAO report, *Impact of Disasters on Agriculture and Food Security*, delivers a warning that climate-fueled disasters are devastating global agriculture at an alarming pace. Over the past three decades, such disasters have caused an estimated \$3.26 trillion in agricultural losses equivalent to 4% of global agricultural GDP. Beyond the staggering figures lie human costs: millions of livelihoods shattered, rising hunger, and rural economies pushed to the brink. The report's urgent message is clear climate disasters are escalating faster than our capacity to respond or adapt.

THE SMOG CONTROL STRATEGY

The Punjab Smog Control Strategy 2024-25 is a multifaceted plan to mitigate environmental pollution. One of the aims of the strategy is to curb stubble burning through a three-pronged approach: regulation, technology, and community engagement. Key initiatives include enforcing the *Punjab Environmental Protection (Smog Prevention and Control) Rules, 2023* which explicitly prohibit and penalize stubble burning leveraging remote sensing for real-time monitoring of burning incidents.