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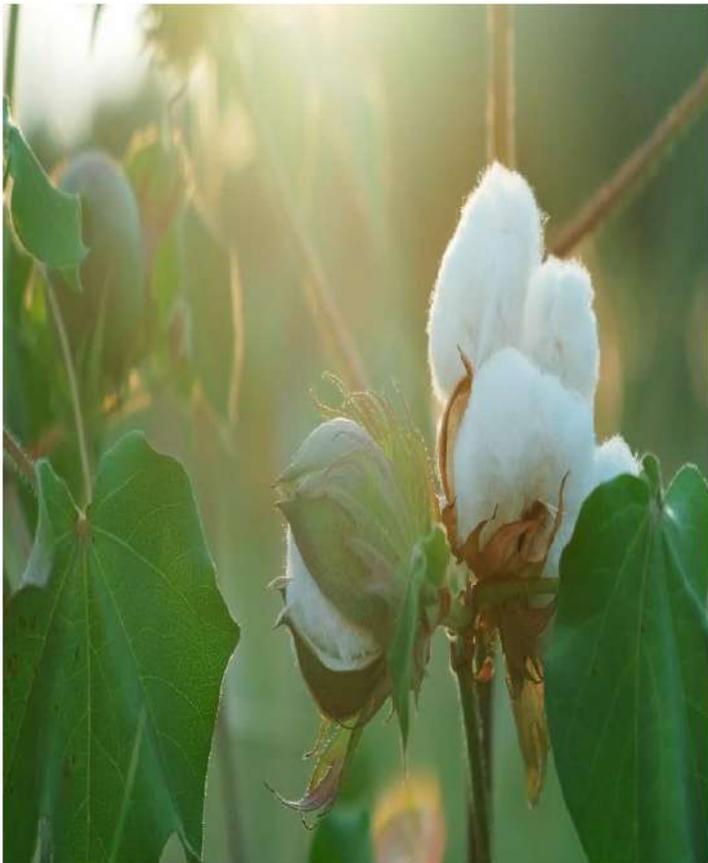
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Government of Pakistan  
PBRR, Pakistan

**Plant Breeders' Rights Registry**

**Plant Breeders' Rights Journal**



Official Journal of Plant Breeders'  
Rights Registry, Pakistan

*January 2025*

# **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

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## EDITORIAL



I welcome all readers of this edition of the Plant Breeders' Rights Journal. Being a new incumbent of the post of the Registrar of the plant Breeders' Rights Registry, I will try to improve the technical capacity and efficiency of the organization. The Registry is being digitized. A Management Information System (MIS) is under development for online receiving and processing of the the Plant Varietal Protection (PVP) applications. This will facilitate national as well as international applications with much better efficiency.

Coordination with allied departments like Federal Seed Certification and Registration Department (FSC&RD), Plant Genetic Resource Institute (PGRI), Intellectual Property Organization (IPO) of Pakistan, etc., will be improved for effective implantation of Plant Varietal Protection regime in the country. Efforts will also start to contact UPOV to explore possibility of Pakistan becoming member of this international forum.

Scope of crop species protectable in Pakistan will get significantly extended. This will make the Registry capable to facilitate R&D companies working in a wide range of crops. A digitized morphological and molecular database of existing plant varieties in Pakistan will be compiled for a ready reference to check the novelty of a new variety.

The Registry will have special focus on establishment of determination, collection and distribution mechanism of the Royalty received from business of propagating material of a protected variety. Moreover, the forum of Plant Variety Protection Advisory Committee (PVPAC) will be used to establish a well-integrated setup for control of infringement of the Plant Breeders' Rights.

It is hoped that coming days will see a significant improvement in PVP context, motivation in plant varietal research and business and availability of promising plant varieties in Pakistan. All suggestions for improvement received at [www.pbr.gov.pk](http://www.pbr.gov.pk) are highly welcomed and will get due consideration.

*Dr. Muhammad Naeem*

## Cases for Opposition

### 1. Application No.: PBRR-Cotton-06/21

Name of the Applicant: Four Brothers Group Pakistan  
Institute: Four Brothers Group Pakistan  
Name of Breeder(s):  
i. Ch. Muhammad Hanif  
ii. Shujaat Ullah Malik  
Name of Co-breeder(s):  
Application for: New Plant Variety  
Denomination of Variety: Badar-1  
Crop: Cotton (*Gossypium hirsutum* L.)  
Type of Variety: OPV  
Name of Initial Variety  
(in case EDV): Not Applicable

Salient features:

CHARACTERISTICS	DESCRIPTION
Comparable variety	MNH-886 & FH-142 and Tarzan-i
Maturity	Medium
Days to opening	110
Earlier than	MNH-886
<b>SEEDLINGS CHARACTERISTICS</b>	
Seedling length (cm)	11.0
Seedling colour	Dark green
Foliage spot	Present
<b>PLANT CHARACTERISTICS</b>	
Growth habit	Erect
Plant height (inch)	98
Plant shape	Compact

Fruit branch type	Normal
Nodes to 1st monopodial branch	6 Average
Monopodia attitude	Erect
Monopodia/plant	0-3
Sympodia/plant	30-35
Sympodia attitude	Erect
Stem pigmentation	Reddish
Stem tip hair	Medium
Bud gossypol	Normal
Fruit branches	Normal
<b>LEAF CHARACTERISTICS</b>	
Foliage density	Intermediate
Leaf colour	Dark green
Leaf type	Normal
Lobes/leaf	3-4
Leaf attitude	Flat
Leaf nectaries	Present
Leaf length (cm)	9.2
Leaf width (cm)	8.9
Petiole length (cm)	9.3
Leaf hairiness	Medium
<b>FLOWER CHARACTERISTICS</b>	
Days to flowering (50%)	45-50 days
Flower duration	Medium
Flower size	Medium
Sepal pigmentation	Present
Petal spot	Absent
Nectaries	Present
Petal colour	Creamy

Anther colour	Medium
Stigma exertion (mm)	3.0
Stigma height (mm)	10.3
Calyx size	Intermediate
Bracteole type	Normal
<b>Boll characteristics</b>	
Boll bearing habit	Close to stem
Boll shape	Roundish
Boll colour	Medium Green
Boll size	Big
Beak size	Medium
Boll length (cm)	4.5
Boll breadth (cm)	2.9
Boll broad at	Mid
Peduncle length (cm)	2.7
Locules/boll	4-5
Locules/boll	4-5
Boll/plant	75-85
Boll surface	Medium Pitted
Gossypol	Normal
Boll opening	Fluffy
Boll weight	4.48gm
<b>SEED CHARACTERISTICS</b>	
Seed size	Medium
Seed shape	Semi Conical
Seed length (mm)	11
Seed width (mm)	3.7
Seed coat colour	Dark Brown
Seed index (g)	8.9

Seed fuzz	Almost Fuzzy
Fuzz colour	White with greenish tinge
<b>FIBRE CHARACTERISTICS</b>	
Fibre colour	Shiny White
G.o.t lint (%)	42.10%
Staple length (mm)	28.74
Fiber group	Long
Fiber finess (ug/inch)	4.25
Fib. Strength (g/tax)	31.2 G/Tex
<b>RESISTANCE</b>	
Lodging	Tolerant
Sucking pests	Medium
CLCV	Highly Tolerant
Rhizoctonia	Yes
Variants	Plant shape changes with management and Agronomic practices
Distinguishing characteristics	Compact Plant, highly tolerant to lodging, CLCV and heat

Opposition can be filed up to 02-04-2025.

## 2. Application No.: PBRR-Cotton-112/24

Name of the Applicant: Imperial Crop Sciences (Pvt.) Ltd, Lahore

Institute: Imperial Crop Sciences (Pvt.) Ltd, Lahore

Name of Breeder(s):

- i . Dr. Khalid Hameed
- ii. Muhammad Shahbaz
- iii. Dr. Saghir Ahmad

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: ICS 386

Crop: Cotton (*Gossypium hirsutum* L.)

Type of Variety: OPV

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

Salient features:

<b>CHARACTERISTICS</b>	<b>DESCRIPTION</b>
Comparable variety(s)	MNH-886, IUB-13
Origin	Local
Breeding method	Hybridization
Area of adaptation	All cotton growing areas of Pakistan
Type of variety	Upland Cotton
Days to maturity	140-160 Days
Maturity	Medium
Earlier than	MNH-886, IUB-13
Later than	None
Days to opening (50%)	103-115 days
<b>SEEDLINGS CHARACTERISTICS</b>	
Seedling length (cm)	6-10
Seedling colour	Dark Green
Foliage spot	Absent
<b>PLANT CHARACTERISTICS</b>	
Growth habit	Spreading
Plant height (cm)	90-140
Plant shape	Spreading
Fruit branch type	Cluster
Monopodia attitude	Semi erect
Sympodia attitude	Semi erect
Nodes to 1st monopodia	4-5

Monopodial plant	2-4
Sympodial plant	21-34
Stem pigmentation	Weak
Stem tip hairiness	Sparse
Bud gossypol	Low
<b>LEAF CHARACTERISTICS</b>	
Foliage density	Intermediate
Leaf colour	Green
Leaf length (cm)	11-14
Leaf width (cm)	16-19
Petiole length (cm)	13-17
Petiole anthocyanin	present
Leaf attitude	Semi erect
Leaf type	Normal
Leaf appearance	Flat
Leaf nectaries	Present
Leaf hairiness	Sparse
<b>FLOWER CHARACTERISTICS</b>	
Days to flowering (50%)	55-65
Flower duration	Medium
Flower size	Medium
Sepal pigmentation	Absent
Petal spot	Absent
Nectaries	Absent
Petal colour	Creamy
Anther colour	Creamy
Stamen density	Semi dense
Position of stigma	Exerted
Stigma exertion (mm)	8-10

Stigma height (mm)	20-24
Calyx size	Large/Broad
<b>BOLL CHARACTERISTICS</b>	
Boll bearing habit	Solitary
Boll shape	Round
Boll colour	Green
Boll size (boll width at Maximum point)	Medium
Beak size	Short
Boll length (cm)	2.9-3.2
Boll breadth (cm)	2.2-2.6
Boll broad at	Middle
Boll surface	Roughly Pit
Peduncle length (cm)	1.3
Gossypol	High
Bracteole length	short
Bracteole width	Medium
Boll/plant	32-42
Boll opening	Semi Open
Boll weight (g)	3.5
Yield (seed cotton) kg/acre	1800-2 100
Yield (lint) kg/acre	600-800
<b>SEED CHARACTERISTICS</b>	
Seed size	Medium
Seed shape	Oblong
Seed length (mm)	6-8
Seed width (mm)	3-4
Seed index (g)	6.53
Seed coat colour	Dark brown
Seed fuzz	Fuzzy

Fuzz colour	Dusky white
Oil content (%)	10-15
<b>FIBRE CHARACTERISTICS</b>	
Fibre colour	White
G.o.t i lint (%)	40.2
Staple length (mm)	28.8
Fibre fineness (micronaire Value $\mu\text{g}$ /inch)	4.6
Fibre strength (g/tex)	35.3
Lint index (g)	5.2
Uniformity (%)	95
Spinning index	45
Fiber length group	Long (28.5-30.5)
Environmental adaptability	Stable (resilient)
Drought tolerant	Tolerant
Acid soil	Tolerant
Heat tolerant	Most Tolerant
Resistant to insect pest	Tolerant to heliothis, Spotted boll worm, Army worm and Tolerant to Pink boll worm
Resistant to diseases	Tolerant to CLCuV diseases
Distinguishing characteristics	Glyphosate Tolerant and tolerant to pink bollworms Fluffy Opening

Opposition can be filed up to 28-02-2025

## **NEWS AND EVENTS**

### **SINDH GOVERNMENT INITIATIVES TO COMBAT CLIMATE CHANGE**

To combat climate change challenges the Sindh Government has initiated various projects to mitigate climate change i.e., digitalization of agricultural marketing, crop reporting, lining of 500 and construction of 185 water courses, installation of solar water pumps and provision of smart subsidies and laser land leveling to farmers. In addition to this, they will train the farming community in terms of the usage of fertilizer, irrigation and optimal seed rate.

### **WORKSHOP ON SUSTAINABLE RICE FARMING**

Food and Agriculture Organization (FAO) organized a workshop on "Sustainable and Regenerative Management of Rice Production in Pakistan" aimed to ensure a sustainable future for rice farming. The workshop highlighted the main challenges such as climate change, soil health and land degradation. All the representatives of the public and private sectors agreed to develop a roadmap to achieve the targets.

### **WORLD'S THIRD-LARGEST EXPORTER OF SESAME**

Pakistan became the world's 3<sup>rd</sup> largest exporter of sesame. The exports surged to more than \$1 billion. This represents a significant 366% increase in export value over the past five years. This milestone was achieved due to the successful execution of the National Oilseeds Enhancement Program (NEOP) and collaboration of public sector departments.

### **PRODUCTION TARGETS FOR VARIOUS CROPS**

The Federal Committee on Agriculture has established a wheat production target of 33.58 million tons across 10.38 million hectares for the 2024-25 period, exceeding last year's goal of 31.81 million tons. Other crop targets include 419,400 tons of chickpeas, 6.83 million tons of potatoes, and 2.55 million tons of onions. To support farmers, the government has earmarked approximately USD 8 million for agricultural credit disbursement, reflecting a 26.7% increase from the previous year.

### **NATIONAL SEED POLICY**

The National Seed Policy is approaching its concluding phase and will shortly be submitted to the cabinet for approval. The policy seeks to tackle the issues encountered by seed technology firms and is intended to update the seed production system in Pakistan, ultimately

enhancing the yields of cotton and various other crops.

### **VIRUS OUTBREAK IN AUSTRALIA**

A recently identified outbreak of the tomato brown rugose virus in South Australia is impacting the country's tomato sector, threatening hundreds of jobs and possibly increasing prices in supermarkets. The virus, linked to imported seeds, does not affect human health but can severely damage crops, leading to yield reductions of up to 75%. Growers are experiencing substantial losses and job cuts and are requesting compensation for their damages. First discovered in the Middle East in 2014, the virus is notorious for its high transmissibility via soil, wind, and agricultural equipment, which makes eradication efforts challenging.

### **WORLD'S LARGEST GERMPLASM BANK**

China has launched a new national bank for crop germplasm resources that can store up to 1.5 million samples, guaranteeing agricultural security for the next half-century. The Ministry of Agriculture and Rural Affairs revealed that more than 63,000 new grain germplasm samples have been gathered, with soybeans comprising the largest portion because China is recognized as their country of origin.