



Government of Pakistan  
PBRR, Pakistan

Plant Breeders' Rights Registry

## Plant Breeders' Rights Journal



Official Journal of Plant Breeders' Rights Registry, Pakistan

*January 2023*

# **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,  
Mauve Area, Islamabad, Pakistan

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## **EDITORIAL**

Intellectual Property (IP) Rights are crucial for having an active R&D sector. No country can progress without safeguarding financial return of input in the research activities. The IP rights are especially important in plant varietal research for having involved high cost, expertise and long duration. The process gets complicated and risky with dependency on natural environmental conditions.

The Plant Breeders' Rights Registry of Pakistan is striving its best to implement the IP regulations for plant varieties. Interest of the research sector, both Public and Private, is evident by increasing number of applications being received by the Registry. Five crops have been added in the list of species eligible for getting the PBRs in Pakistan. Two under processing cases are being exposed for any possible opposition.

The Registry is committed to provide legal protection to the financial interests of plant scientists involved in creation of new promising varieties. It is expected that the scope and services of the organization will get improved with induction of more technical staff in near future.

Dr. HayatUllah Tareen  
Registrar

## EXPANSION IN CROP SCOPE OF THE REGISTRY

Plant Breeders Rights Registry is taking steps for betterment of the agriculture/seed industry.

Previously crops eligible for Plant Variety Protection application were:

SR. NO.	CROP NAME	SCIENTIFIC NAME
1.	Cotton	<i>Gossypium spp.</i>
2.	Maize	<i>Zea mays L.</i>
3.	Potato	<i>Solanum tuberosum L.</i>
4.	Canola	<i>Brassica napus L.</i>
5.	Sunflower	<i>Helianthus annuus L.</i>
6.	Wheat	<i>Triticum spp.</i>
7.	Barely	<i>Hordeum spp.</i>
8.	Groundnut	<i>Arachis hypogaea L.</i>
9.	Chickpea	<i>Cicer arietinum L.</i>
10.	Banana	<i>Musa spp.</i>

Following five new crops have been added in list of eligible crop/species for Plant Variety Protection application:

SR. NO.	CROP NAME	SCIENTIFIC NAME
1.	Rice	<i>Oryza sativa L.</i>
2.	Millet	<i>Pennisetum glaucum L.</i>
3.	Rapeseed/ Mustard	<i>Brassica spp.</i>
4.	Olive	<i>Olea europaea L.</i>
5.	Citrus	<i>Citrus spp.</i>

## CASES FOR OPPOSITION

### 1. Application No.: PBRR-Maize-31/21

Name of the Applicant: Bayer Pakistan (Private) Limited  
 Institute: Bayer Pakistan (Private) Limited  
 Name of Breeder(s): Prashant Golegaonkar-Monsanto Thailand Limited 56 M006  
 Dinthong Wongthong Phitsanulok, 65130 Thailand  
 Name of Co-breeder(s):  
 Application for: New Plant Variety  
 Denomination of Variety: DK-6321  
 Crop: Maize (*Zea mays* L.)  
 Type of Variety: Hybrid  
 Name of Initial Variety  
 (in case EDV): Not Applicable  
 Salient features:

CHARACTERISTICS	DESCRIPTION
Days to Maturity	113-115
Maturity duration	Medium
Sowing time	Spring (Jan to March)
<b>SEEDLING CHARACTERISTICS</b>	
Seedling length (cm)	10.5
Coleoptile's anthocyanin	Absent
First leaf colour	Green
First leaf tip	Obtuse
First leaf length (mm)	51.3
First leaf width (mm)	18
<b>STEM CHARACTERISTICS</b>	
Stem length (cm)	200-230
Internodal length (cm)	14.5-16.3
Internodal diameter (cm)	2.1
Mid node anthocyanin	Absent
Stem tillering	Absent
Stem anthocyanin coloration of brace roots	Present

<b>LEAF CHARACTERISTICS</b>	
Leaf angle between blade and stem (on leaf just above upper ear)	Wide >45°
Leaf attitude of blade (on leaf just above upper ear)	Straight
Leaf width of blade (leaf of upper ear)	Broad (>9 cm)
<b>TASSEL CHARACTERISTICS</b>	
50% Tassel emergence (days)	63-65
50% Tassel emergence (days)	Late (>55 days)
Anthocyanin coloration at the base of glume (in middle third of main axis)	Absent
Anthocyanin coloration of glume excluding base (in middle third of main axis)	Absent
Angle between main axis and lateral branches	Narrow
Attitude of lateral branches (in lower third of tassel)	Straight
Anthocyanin coloration of anthers (in middle third of main axis on fresh anthers)	Present
Density of spikelets (in middle third of tassel)	Dense
Tassel angle between main axis and lateral branches	Narrow (<45) (in lower third of tassel)
Tassel length (cm)	40.5-43.5
Tassel stalk length (cm)	7.3-8.2
Exertion above flag leaf (cm)	4.5-5.5
No. Of lateral branches	7
Lateral branches density	Intermediate
<b>FLOWER CHARACTERISTICS</b>	
Anther fertility	Normal
Pollen shading	Medium
Anther color	Purple
Pollen color	Yellow
Glume color	Green
<b>EAR CHARACTERISTICS</b>	
50% silk emergence(days)	65-67
Silk color	Green
Insertion height (cm)	100-110

Peduncle length (cm)	8-10
Ear leafy extensions	Absent
Ear husk length	Long
No. Of husk blades	8-10
Ear shape	Conico Cylindrical
Ear length (cm)	19-21
Seed rows/ear	14-18
Seed/row	36-39
Seed row arrangement	Straight
Cob color	Pink
<b>SEED CHARACTERISTICS</b>	
Seed color	Yellow
Seed tip color	White
Color of sides	Orange
Seed shape	Indented
Seed length (mm)	13.6-14.2
Seed width (mm)	8.16-9.8
Seed thickness (mm)	4-4.7
Seed type	Semi dent
Seed wax	Absent
Seed size	Bold
Seed weight/ear (g)	240
1000 Seed weight (g)	380
Grain. Cob ratio	83%
Seed sweetness	Absent
Seed waxiness	Absent
Seed opaqueness	Absent
Resistance to	Lodging
<b>Distinguishing characteristics:</b> It is a medium tall maize hybrid variety having semi erect leaves, cob placement at mid, yellow orange grain color and stay green character.	

Opposition can be filed up-till 08-01-2023

## 2. Application No.: PBRR-Maize-32/21

Name of the Applicant: Bayer Pakistan (Private) Limited

Institute: Bayer Pakistan (Private) Limited

Name of Breeder(s):

Prashant Golegaonkar-Monsanto Thailand Limited 56 M006  
Dinthong Wongthong Phitsanulok, 65130 Thailand

Name of Co-breeder(s):

Application for: New Plant Variety

Denomination of Variety: DK-7024

Crop: Maize (*Zia mays* L.)

Type of Variety: Hybrid

Name of Initial Variety

(in case EDV): Not Applicable

Salient features:

CHARACTERISTICS	DESCRIPTION
<b>STEM CHARACTERISTICS</b>	
Stem Length (cm)	245-250
Internodes length (cm)	21-22
<b>TASSEL CHARACTERISTICS</b>	
Tassel length (cm)	35-38
Tassel stalk length (cm)	6.5-7.5
No. Of lateral branches	7-9
Lateral branches attitude	Straight
Lateral branch density	Lax
Angel between main axis and lateral branches	Wide
Attitude of lateral branches (in lower third of tassel)	Curved
<b>LEAF CHARACTERISTICS</b>	
Leaf angle between blade and stem (on leaf just above upper ear)	Small
Leaf attitude of Blade (on leaf just above upper ear)	Straight
<b>EAR CHARACTERISTICS</b>	
Silk color	Green

Peduncle length (cm)	3.0-3.4
Early leaf extension	Absent
Early husk length	Medium
Ear length (cm)	8-9
Ear diameter (cm)	7.0-7.2
Seed row/ear	35-38
Seed row	18-20
No. of ear/plant	1
Cob pith color	Reddish
Ear Shape	Cylindrical
<b>SEED CHARACTERISTICS</b>	
Seed row arrangement	Straight
Seed color	Yellow Orange
Seed shape	Indented
Seed tip colour	White
Colour of sides	Orange
Seed Type	Semi Flint
Seed Wax	Wax
Seed Weight/ear (g)	208-215
1000 Seed Weight (g)	340
<b>RESISTANCE</b>	
Lodging	Low
Insects	Trace
<p><b>Distinguishing Characteristics:</b> The Maize Hybrid Variety DK 7024 has medium tall height, erect leaves, Cobs placement at mid, 16-18 kernel rows, orange grain colour, semi flint seed type and perform well in early, mid and late planting window</p>	

## **NEWS AND EVENTS**

### **KISSAN PACKAGE**

Prime Minister of Pakistan Mian Muhammad Shahbaz Sharif initiated special package for welfare of farmers with special emphasis on expensive farm inputs like seeds, fertilizer and electricity. The honorable Prime Minister said that 1.2 million certified seeds bags worth Rs.13.2 billion would be distributed among the farmers. Federal and provincial governments would share the funds required to run the package.

The premier said that Pakistan's economic progress is dependent upon the agriculture sector. The new financial package reflects an increase of Rs. 400 billion as compared to the last year in the agriculture sector. He also said that to meet the wheat shortage problem, the government is planning to import 2.6 MT of wheat. One million tons has already been imported while 1.6 MT of wheat will be imported soon.

### **27<sup>th</sup> ASIAN SEED CONGRESS**

Twenty seventh Asian Seed Congress, co-organized by the Asia & Pacific Seed Alliance (APSA) and the Thai Seed Trade Association (THASTA), was held at the Bangkok Convention Center, Bangkok, Thailand from the 14<sup>th</sup> to the 18<sup>th</sup> of November 2022. The main agenda of the congress was to focus on development, production, distribution, regulation and trade of quality seeds. Especial emphasis was to improve role of Asian Seed Congress to facilitate cross.

### **THE INTERNATIONAL SCIENTIFIC CONFERENCE "EUROPEAN AGRI-FOOD & SUSTAINABILITY INNOVATION"**

Czech Presidency of the Council of the EU in cooperation with the European Food Safety Agency (EFSA) organized the conference to be held at Prague Congress Center on 28-29, November 2022. The conference brought together the representatives of the European Parliament, European Commission, European Food Safety Authority, USDA, Member States, NGOs, scientific experts from Czech universities and others. CPVO President Francesco Mattina also participated in the event. The conferences mainly focused on:

- Strategies for Security related to Agri-Food production
- Safety and Sustainable Agri-Food Sector
- Challenges for modern agriculture e.g., new genomic techniques
- Climate-smart agriculture

## SEMINAR

A seminar on "Policy Dialogue on Plant Breeders' Rights" was held on 18<sup>th</sup> of October 2022 at PMAS Arid Agriculture University, Rawalpindi. Plant Scientist and Academia from across the



Country participated in the event. Registrar Plant Breeders' Rights (PBR) Registry highlighted the importance of the PVP Regulation in promotion and protection of R&D in Plant Varietal area. Dr Zahid, Chairman Plant Breeding and Genetics Department highlighted importance of new promising varieties for Pakistan, especially in context of climate change threat. He emphasized the need for collaborative efforts to promote Plant Breeding. The participants also attended a practical session to go through all processes of applying for the PBRs.