Indian Council of Agriculture Research

Indian Insititute of Rice Research

Rajendranagar, Hyderabad, 500030

ICAR - IIRR
Rice Varieties/Hybrids

Presented by
Plant Breeding Department, ICAR - IIRR

HIGH YEILDING

RICE VARIETIES

- DRR Dhan 56 (IET – 26803)
- DRR Dhan 75 (IET – 30107)
- DRR Dhan 76 (IET – 29808)
- DRR Dhan 80 (IET – 30757)

DRR Dhan 56

IET-26803

RP 6221-GSR IR1-8-S9-D2-Y2=HHZ 8-SAL9-DT2-Y2



Variety type

A High Yielding Long Slender Green Super Rice (GSR) variety

Description

DRR Dhan 56 is an early duration, highly vigorous, non-lodging, non-shattering, dark green in color and long slender grain variety possessing premium grain and cooking quality developed through the project "Green Super Rice (GSR) for the Resource-Poor of Africa" and Asia" in collaboration with IRRI, Philippines.

GREEN SUPER RICE (GSR)

Resilient. Productive. Profitable.

- Early Duration 110-115 Days
- High Vigorous Growth
- Non-lodging Non-shattering
- Dark Green Colour
- Long Slender Premium Grain

Yield: 5.2 t/ha

AGRONOMIC & IDENTITY INFORMATION

Pedigree	Samba Huang-Hua-Zhan*2 / Phalguna
Ecology	Irrigated
Grain type	Long Slender
Duration	110-115 Days
Yield	5.2 t/ha
Notification No	500 (E) | 29/01/2021
Protection of Plant Varieties and Farmers' Rights Authority Number	2022/0022
Plant height	102 cm
1000 grain weight	22.39 g

GRAIN & MILLING QUALITY

Hulling:	77.5%
Milling:	68.9%
Head rice recovery:	64.1%
Kernel length:	6.38 mm
Kernel width:	2.0 mm
L/B ratio:	3.18
Gel consistency:	22 mm
Alkail spreading value:	5
Amylose content:	23.15%





SALIENT FEATURES

It can replace varieties like Pusa 44, Sona Mahsuri, etc. The new variety can also be cultivated across the states with highlodging and shattering areas.

RECOMMENDED STATES

Punjab and Haryana.

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DRR Dhan 75

IET 30107 | High Yielding Irrigated Fine Variety



A high yielding variety developed through marker assisted introgression of 3 yield genes namely *Gn1a*, *SCM2*, and *OsSPL14* for high grain number, culm strength and panicle branching respectively in the genetic background of Samba Mahsuri.

Grain Appearance



HIGH-YIELD PERFORMANCE

Grain Yield: 6.0 t/ha

Plant height (cm): 102 cm

Duration (days): **130-135 days (seed to seed)**

MARKER-ASSISTED INTROGRESSION

Genes introgressed: ***Gn1a, SCM2, and OsSPL14***

Functions delivered: **high grain number, culm strength and panicle branching respectively**

DISEASE RESISTANCE

Resistant to neck blast, and moderately resistant to leaf blast and sheath blight

Ecology: Irrigated Low Phosphorus conditions

Season: Kharif

Grain Type: Medium Slender

Recommended States: Telangana, Andhra Pradesh, Tamil Nadu, Uttar Pradesh, Odisha, Jharkhand, Bihar, Gujarat and Maharashtra

Parentage: Samba mahsuri*2// Habataki/ST12

Notification No: S.O. 4388 (E) | 08/10/2024

GRAIN QUALITY PARAMETERS

1000 grain weight (g):	L/B ratio:	Head rice recovery (%):	Alkali spreading value:	Amylose content (%):
16.72 g	2.72	61.4%	4	24.2%

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DRR Dhan 76

IET 29808 | High Yielding Irrigated Fine Variety

DRR Dhan 76 is a semi-dwarf, early maturing, high yielding, medium slender variety, which is back cross derivative of MTU 1121 and suitable for irrigated ecology.





PERFORMANCE

- **Grain Yield:** 6.2 t/ha
- **Plant height (cm):** 101-105 cm
- **Duration (days):** 113-120 days (seed to seed)

IRRIGATED ECOLOGY

Ecology: Irrigated Mid–Early

DRR Dhan 76 is a semi-dwarf, early maturing, high yielding, medium slender variety, which is back cross derivative of MTU 1121 and suitable for irrigated ecology.

DISEASE AND PEST RESISTANCE

Moderately resistant to BPH, leaf blast, neck blast, brown spot and sheath rot

GRAIN TYPE & RELEASED STATES

Grain Type: Medium Slender

Released for States: Odisha, West Bengal, Kerala, Pondicherry and Andhra Pradesh.

Rice Variety:	DRR Dhan 76 (IET 29808)	Plant height (cm):	101-105 cm
Variety Type:	High Yielding Irrigated Fine Variety	Duration (days):	113-120 days (seed to seed)
Grain Type:	Medium Slender	1000 grain weight (g):	19.4 g
Grain Yield:	6.2 t/ha	L/B ratio:	2.70
Disease and Pest Resistance:	Moderately resistant to BPH, leaf blast, neck blast, brown spot and sheath rot	Head rice recovery (%):	64.2%
		Alkali spreading value:	4
Parentage:	MTU 1121*2/Swarna	Amylose content (%):	20.14%
Notification No:	S.O. 4388 (E) | 08/10/2024	Gel content (mm):	44.5 mm

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DRR Dhan 80

IET 30757 | High Yielding Irrigated Medium (NIL) Variety

DRR Dhan 80 is a MAS derived medium duration BLB resistant variety in the genetic background of Gangavathi Sona with genes introgressed viz., xa5, xa13 and Xa 21 governing BLB resistance.



Rice Variety:	DRR Dhan 80 (IET 30757)
Variety Type:	High Yielding Irrigated Medium (NIL) Variety
Grain Type:	Medium Slender
Grain Yield:	5.5 t/ha
DISEASE AND PEST RESISTANCE	Moderately resistant to leaf blast, neck blast, sheath rot, WBPH and gall midge.
Percentage:	Gangavati Sona*2/ Improved Samba Mahsuri
Notification No:	S.O. 4388 (E) | 08/10/2024

BLB-RESISTANCE & MARKER-ASSISTED SELECTION

- MAS derived medium duration BLB resistant variety
- genes introgressed viz., xa5, xa13 and Xa 21
- governing BLB resistance

IRRIGATED-MEDIUM PERFORMANCE

- Ecology: Irrigated Medium conditions
- Grain Yield: 5.5 t/ha
- Plant height (cm): 105-110 cm
- Duration (days): 135-140 days (seed to seed)

DISEASE AND PEST RESISTANCE

Moderately resistant to leaf blast, neck blast, sheath rot, WBPH and gall midge.

GRAIN TYPE

Medium Slender

RECOMMENDED STATES

Odisha, Bihar, Chhattisgarh, Madhya Pradesh, Maharashtra, Karnataka and Telangana.

GRAIN QUALITY & PHYSICAL CHARACTERISTICS

1000 grain weight (g): 22.0 g	L/B ratio: 2.82	Head rice recovery (%): 55%	Alkali spreading value: 4.0	Amylose content (%): 22.35%	Gel content (mm): 46 mm

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DROUGHT TOLERANT
RICE VARIETIES

- ❖ DRR Dhan 42 (IET – 22836)
- ❖ DRR Dhan 44 (IET – 22081)
- ❖ DRR Dhan 50 (IET – 25671)
- ❖ DRR Dhan 52 (IET – 23354)

DRR Dhan 42

भाकृअनुप
ICAR

IET 22836 | First drought tolerant MAS derived variety

It is the first drought tolerant, high yielding variety in the genetic background of IR 64, developed by marker assisted backcross breeding with the introgression of two yield QTLs **(qDTY 2.2 and qDTY 4.1).** It is an early variety sustaining a drought period of **25-30 days** during reproductive stage with an average grain yield of **2.3 to 2.5 t/ha under severe drought stress**



KEY PERFORMANCE HIGHLIGHTS

- **Grain Yield:** 4.0 6 4.5 t/ha under normal conditions
- **Plant height (cm):** 105 cm
- **Duration (days):** 120-125 days (seed to seed)

DROUGHT TOLERANCE

It is the first drought tolerant, high yielding variety in the genetic background of IR 64, developed by marker assisted backcross breeding with the introgression of two yield QTLs (qDTY 2.2 and qDTY 4.1). It is an early variety sustaining a drought period of 25-30 days during reproductive stage with an average grain yield of 2.3 to 2.5 t/ha under severe drought stress

DISEASE AND PEST RESISTANCE

Moderately resistant to leaf blast

Rice Variety:	DRR Dhan 42 (IET 22836)
Variety Type:	First drought tolerant MAS derived variety
Released for States:	Tamil Nadu, Madhya Pradesh and Chhattisgarh
Grain Type:	Long slender
Grain Yield:	4.0 6 4.5 t/ha under normal conditions
Disease and Pest Resistance:	Moderately resistant to leaf blast
Parentage:	Aday Sel/*3IR 64
IET No:	22836
Year:	2015
Notification No:	S.O.268 (E) | 28/01/2015
Protection of Plant Varieties and Farmers' Rights Authority Number:	2019/211
Ecology:	Rainfed and Irrigated
Season:	Kharif and Rabi

GRAIN QUALITY (TECHNICAL SPECIFICATIONS)

1000 grain weight (g):	L/B ratio:	Head rice recovery (%):	Alkali spreading value:	Amylose content (%):	Gel Content (mm):
25.4	3.20	52.9%	4.0	22.9%	63 mm

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DRR Dhan 44

IET 22081 | Drought tolerant early duration variety

An early duration, semi dwarf variety with tolerance to moderate drought stress at vegetative and reproductive stages. It is derived from F4 breeding material (IR71700-247-1-1-2/IR03L120) shared by IRRI, Philippines. It is adaptable for both early and late planting

PADDY (HUSK)



MILLED RICE





GRAIN YIELD	PLANT HEIGHT (CM)	DURATION (DAYS)
4.3 t/ha (Grain Yield)	100-105 cm (Semi Dwarf)	110-115 days (seed to seed)

DROUGHT TOLERANCE

An early duration, semi dwarf variety with tolerance to moderate drought stress at vegetative and reproductive stages. It is derived from F4 breeding material (IR71700-247-1-1-2/IR03L120) shared by IRRI, Philippines. It is adaptable for both early and late planting

DISEASE AND PEST RESISTANCE

Moderately resistant to sheath rot, brown spot, neck blast, plant hoppers, stem borer and leaf folder

VARIETY AND AGRONOMIC INFORMATION

Rice Variety:	DRR Dhan 44 (IET 22081)
Variety Type:	Drought tolerant early duration variety
Released for States:	Uttarakhand, Haryana and Bihar
Grain Type:	Long slender
Grain Yield:	4.3 t/ha
Disease and Pest Resistance:	Moderately resistant to sheath rot, brown spot, neck blast, plant hoppers, stem borer and leaf folder
Ecology:	Irrigated
Season:	Kharif

GRAIN QUALITY PARAMETERS

1000 grain weight (g):	21.3 g
L/B ratio:	3.35
Head rice recovery (%):	58.8%
Alkali spreading value:	4
Amylose content (%):	23.23%
Gel Consistency (mm):	64

IDENTIFICATION AND RELEASE DETAILS

Parentage:	IR71700-247-1-1-2/ IR03L120
IET No:	22081
Year:	2015
Notification No:	S.O.112 (E) | 12.01.2015
Protection of Plant Varieties and Farmers' Rights Authority Number:	2019/218

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DRR Dhan 50

IET-25671

A NIL of Samba Mahsuri with submergence and drought tolerance



Overview: DRR Dhan 50 is a NIL variety with submergence QTL (qSub1) and drought tolerant QTLs (qDTY2.1+qDTY3.1) of late duration with high yield under irrigated / rainfed condition, submergence, water logged and drought conditions at reproductive stage, released in Samba Mahsuri growing areas i.e., Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, Bihar, Odisha, West Bengal, Uttar Pradesh and Madhya Pradesh.

Key highlights: Moderately resistant to leaf blast and Bacterial leaf blight; medium slender grains; intermediate very translucent grains indicating good cooking quality.

Pedigree: Samba Mahsuri Sub1*3/IR81896-B-B-195

Ecology: Irrigated

Grain type:	Medium Slender
Duration:	140 - 145 Days
Yield:	4.6 t/ha
Plant height:	90-95 cm
1000 grain weight:	13.2 g
L/B ratio:	2.60
Head rice recovery:	64%
Alkali spreading value:	4
Amylose content:	23%
Gel consistency:	27 mm

Crop in the field



Panicle



Husked grain



Milled grain



Grain comparison



Salient feature: DRR Dhan 50 has established its drought and submergence tolerance at reproductive and tillingen stage with high yield.

Recommended states: Bihar and West Bengal.

Notification No: S.O. 1379 (E) | 27/03/2018

Protection of Plant Varieties and Farmers' Rights Authority Number: 2022/0037

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DRR Dhan 52

IET-23354

A high yielding drought and heat tolerant variety with lodging and blast resistance



DROUGHT & HEAT TOLERANT
Reproductive stage heat tolerance with high yield under elevated temperature up to 5-8°C.

DIRECT SEEDING SUITABILITY
Suitable for direct seeding.

LODGING RESISTANCE
Strong and sturdy plant type for better field standing.

BLAST RESISTANCE
Built-in resistance to blast disease.

HIGH YIELD
5.9 t/ha

DESCRIPTION

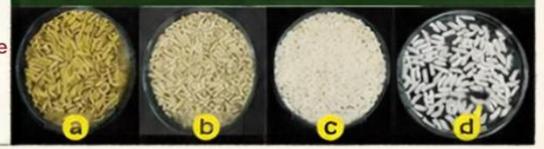
DRR Dhan 52 (IET-23354) is a drought and heat tolerant variety with lodging and blast resistance suitable for direct seeding. It has reproductive stage heat tolerance with high yield under elevated temperature up to 5-8°C. It recorded significant increase in chlorophyll and carotenoid content during heat stress at vegetative as well as reproductive stages.

KEY HIGHLIGHTS

It has long bold grain possessing good cooking qualities like 66% of Head rice recovery, 6.23 mm Kernel length, 2.34 mm Kernel breadth. A Alkali spreading value, 19.7% Amylose content, 55 mm Gel consistency. Cultivated in areas with irrigated/transplanted and low fertile areas.

a. whole grain,
b. brown/hulled rice
c. polished rice
and d. cooked rice

GRAIN TYPE: LONG BOLD







AGRONOMIC SPECIFICATIONS

Pedigree	IR 78877-208-B-1-1/IR78878-53-2-2-2
Ecology	Irrigated
Grain type	Long Bold
Duration	110-115 Days
Yield	5.9 t/ha
Plant height	110-120 cm
1000-grain weight	23.5 g
L/B ratio	2.67

GRAIN AND COOKING QUALITY

Head rice recovery:	66%
Kernel length:	6.23 mm
Kernel breadth:	2.34 mm
Alkali spreading value:	4
Amylose content:	19.70%
Gel consistency:	55 mm

SALIENT FEATURES

DRR Dhan 52 can replace popular varieties like Sahbhagi Dhan, MTU1010 and IR64.

RECOMMENDED STATES

Haryana, Gujarat, Bihar and Odisha.



Notification No:
S.O. 1498 (E) | 01/04/2019
PPV and FRA Number:
2022/0039

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AEROBIC

RICE VARIETIES

- DRR Dhan 41 (IET – 22729)
- DRR Dhan 54 (IET – 25653)
- DRR Dhan 55 (IET – 25671)
- DRR Dhan 57 (IET – 23354)

DRR Dhan 41

IET 22729 | Aerobic Rice Variety for Direct Sowing

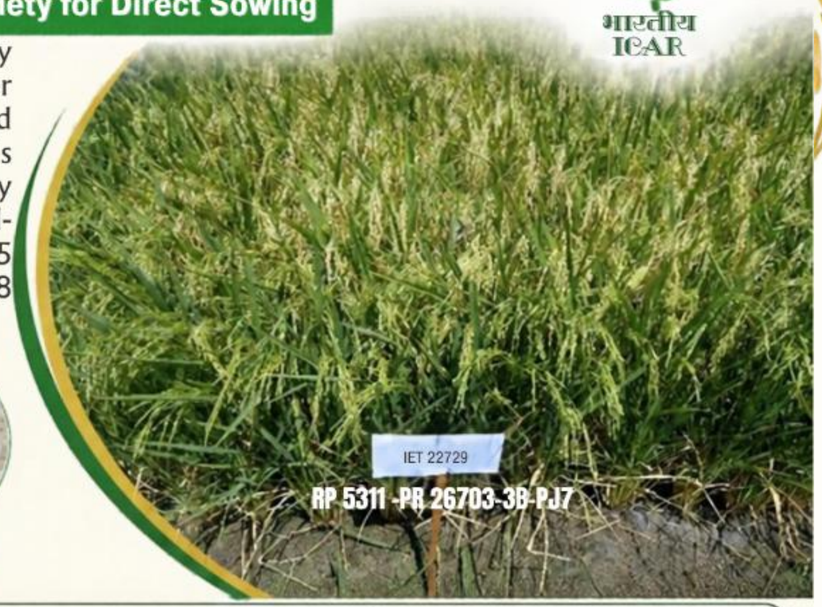
DRR Dhan 41, an aerobic variety suitable for cultivation in water scarce areas under direct seeded conditions. This variety is originated from an introduction by IRRI, Philippines through IURON-INGER nursery. Matures in 115 days with an average yield of 3.8 t/ha in aerobic system



Paddy (Husk)



Milled Rice



Grain Yield:	3.8 t/ha under aerobic conditions
Plant height (cm):	90 cm
Duration (days):	115 days (seed to seed)

Rice Variety:	DRR Dhan 41 (IET 22729)
Variety Type:	Aerobic Rice Variety for Direct Sowing
Released for States:	Bihar and Karnataka
Grain Type:	Long slender
Grain Yield:	3.8 t/ha under aerobic conditions
Disease and Pest Resistance:	Moderately resistant to nematodes, BPH and leaf folder
Parentage:	Nekken1/BPIR1 10
IET No:	22729
Year:	2014
Notification No:	S.O.268(E) | 28/01/2015
Protection of Plant Varieties and Farmers' Rights Authority Number:	2019/365
Ecology:	Direct Seeded Aerobic conditions
Season:	Kharif & Rabi

Disease and Pest Resistance: Moderately resistant to nematodes, BPH and leaf folder

Grain Quality & Milling Characteristics

1000 grain weight (g):	24.0g
L/B ratio:	3.16
Head rice recovery (%):	61.7%
Alkali spreading value:	5.5
Amylose content (%):	23.52%
Gel Consistency (mm):	48.5mm

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DRR Dhan 54

IET-25653

RP 5943-421-16-1-1-B



A high yielding variety resistant to multiple diseases under direct seeded aerobic conditions

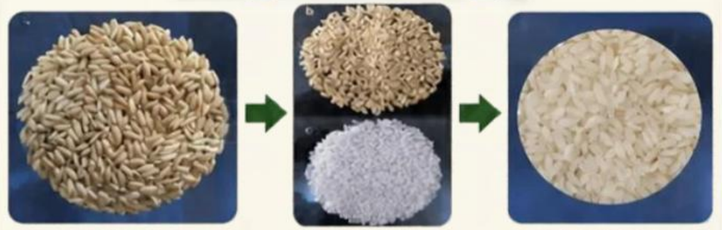
DRR Dhan 54 is a high yielding multiple disease resistant variety with desirable grain quality traits suitable for cultivation under direct seeded aerobic conditions in water limiting areas with short bold premium grain and cooking quality.

DIRECT SEEDED | AEROBIC ECOLOGY | MULTIPLE DISEASE RESISTANCE | WATER-LIMITING AREAS

KEY HIGHLIGHTS

It possess high hulling recovery (78.1%), milling recovery (69.7%) and head rice recovery (HRR) of 65.3%. It recorded desirable cooking quality traits - Intermediate amylose content (21.6%), GC of 44mm, ASV of 4.0, with white kernel appearance and very occasional chalkiness.

SHORT BOLD PREMIUM GRAIN



WHITE KERNEL APPEARANCE • VERY OCCASIONAL CHALKINESS

AGRONOMIC SPECIFICATIONS

Pedigree	RP 5124-11-4-3-2-1/IR 78877-208-B-1-1
Ecology	Aerobic
Grain type	Short Bold
Duration	114-118 Days
Yield	5.6 t/ha
Plant height	110-115 cm
1000 grain weight	25.11 g
L/B ratio	2.3
Head rice recovery	65.5%
Alkali spreading value	4.0
Amylose content	21.6%
Gel consistency	22 mm

RECOVERY AND COOKING QUALITY

Hulling recovery	78.1%
Milling recovery	69.7%
Head rice recovery (HRR)	65.5%
Amylose content	21.6%
Gel consistency (GC)	44mm
Alkali spreading value (ASV)	4.0

SALIENT FEATURES

DRR Dhan 54 can replace popular varieties like Sahbhagi Dhan, MTU1010 and IR64.

RECOMMENDED STATES

Telangana, Haryana, Odisha, Bihar, Jharkhand and Gujarat.

Notification No:
S.O. 500(E) | 09/01/2021

Protection of Plant Varieties and Farmers' Rights Authority Number:
2022/0013

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DRR Dhan 55

IET-26194

Variety type:
A high yielding early aerobic rice variety

Description:
It is an aerobic variety ideal for direct sowing in non-puddled soils. It is a mid-early duration variety maturing in 120-130 days possessing long bold grains. The average grain yield is 4.97 t/ha under aerobic system. DRR Dhan 55 consistently out-performed the check varieties in Eastern zone (Zone III) and Central Zone (Zone V). It has long bold grain with moderate resistance to neck blast, gall midge, rice thrips and plant hoppers.

Pedigree: MTU-1010 / IR79915-B-83-4-3

Ecology: Aerobic

Grain type: Long Bold

Duration: 120-130 Days

Yield: 5.5 t/ha



AEROBIC RICE
DIRECT SOWING IN NON-PUDDLED SOILS

MID-EARLY DURATION120-130 DAYS | LONG BOLD GRAINS | AVERAGE GRAIN YIELD UNDER AEROBIC SYSTEM | VARIETY YIELD5.5 T/HA

PLANT, PANICLE AND GRAIN



Photographs of Plants, panicles, grain, brown rice and polished rice of the proposed variety DRR Dhan 55 (IET 26194)

HUSKED RICE



MILLED RICE



AGRONOMIC SPECIFICATIONS

- 1000 grain weight: 25.0 g
- Duration: 120-130 Days
- Yield: 5.5 t/ha
- Ecology: Aerobic
- Grain type: Long Bold
- Pedigree: MTU-1010 / IR79915-B-83-4-3
- Notification No: S.O. 500 (E) | 29/01/2021
- Protection of Plant Varieties and Farmers' Rights Authority Number: 2022/0014
- Plant height: 100-110 cm

DISEASE & PEST RESISTANCE

Moderately resistant to leaf blast, neck blast, gall midge, rice thrips and plant hoppers.

SALIENT FEATURES

IET 26194 exhibited moderately resistant to leaf blast, neck blast, gall midge, rice thrips and plant hoppers.

GRAIN AND MILLING QUALITY

- Kernel length: 6.22 mm
- Kernel breadth: 2.22 mm
- L/B ratio: 2.80
- Hulling: 78.07%
- Milling: 68.90%
- Head rice recovery: 55.53%
- Alkali spreading value: 7.0
- Amylose content: 22.58%
- Gel consistency: 22 mm

RECOMMENDED STATES

Bihar and Chhattisgarh.



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DRR Dhan 57

IET-26171

A high yielding early aerobic rice variety

DRR Dhan 57 is a high yielding early variety suitable for aerobic conditions of Jharkhand (Zone III) and Chhattisgarh (Zone V). The overall mean grain yield in Zone III and Zone V was 4782 kg/ha, which is 13%, 17% and 16 % higher than National, Zonal and Local checks, respectively indicating good cooking quality.



AEROBIC ECOLOGY

EARLY DURATION 115 - 124 DAYS

OVERALL MEAN GRAIN YIELD 4782 KG/HA

YIELD ADVANTAGE OVER CHECKS
13% 17% 16%
NATIONAL ZONAL LOCAL

VARIETY IDENTITY

Pedigree	BPT 5204/Azucena
Ecology	Aerobic
Grain type	Short Bold
Duration	115 - 124 Days
Yield	4.5 - 5.5 t/ha
Notification No	S.O. 8 (E) | 24/12/2021
Protection of Plant Varieties and Farmers' Rights Authority Number	2022/0024
Plant height	102-110 cm
1000 grain weight	23.0 g



Semi-tall plant habit



Healthy panicles

SALIENT FEATURES

It is a semi tall, high yielding, short bold grained variety with moderate resistance to major insect pests and diseases such as leaf blast, neck blast. Resistance to gall midge, rice thrips and moderate resistance to plant hoppers and Whorl Maggot.

GRAIN TYPE: SHORT BOLD



PADDY GRAIN



HUSKED GRAIN



MILLED RICE

GRAIN AND COOKING QUALITY

Head Rice Recovery:	60%
Alkali Spreading Value:	4.0
Amylose Content:	23.4%
Gel Consistency:	53mm



RECOMMENDED STATES
Jharkhand and Chhattisgarh.



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DIRECT SEEDED

RICE VARIETIES

- DRR Dhan 70 (IET – 29415)
- DRR Dhan 71 (IET – 29421)
- DRR Dhan 77 (IET – 28636)
- DRR Dhan 90 (IET – 31775)

DRR Dhan 70

IET 29415

High Yielding Rice Variety with Good Grain Quality and Suitable to Direct Seeded Aerobic Cultivation



DIRECT SEEDED AEROBIC CULTIVATION

SUITABLE UNDER LOW WATER AVAILABILITY



DRR Dhan 70 is a high yielding rice variety with good grain quality with tolerance to major diseases and insect pest and suitable for direct seeded aerobic cultivation. This variety is also suitable to grow under low water availability conditions.

4.3 t/ha | **DURATION 113 - 120 DAYS** | **AEROBIC ECOLOGY** | **LONG BOLD GRAIN TYPE**

Pedigree:	MTU 1010 / WGL 505
Ecology:	Aerobic
Grain type:	Long Bold
Duration:	113 - 120 days
Yield:	4.3 t/ha
Plant Height:	102-110 cm
Notification No:	1560 (E) | 26/03/2024



GRAIN COMPARISON



HUSKED GRAIN



POLISHED RICE

SALIENT FEATURES

Suitable for water limited aerobic conditions.

RECOMMENDED STATES

Odisha and Bihar.

MILLING AND GRAIN QUALITY	
Hulling:	78.85%
Milling:	70.40%
KL:	6.14 mm
KB:	2.20 mm
Plant Height:	102-110 cm
1000 Grain Weight:	23
L/B ratio:	2.80
Head Rice Recovery:	64.80%
Amylose Content:	21.26
Alkai Spreading Value:	3.0
Gel Consistency:	38mm

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DRR Dhan 71

IET 29421

High Yielding Rice Variety with Good Grain Quality and Suitable to Direct Seeded Aerobic Cultivation

DRR Dhan 71 is high yielding but 100% for better grain quality and tolerance to major diseases and insect pests for direct seeded aerobic cultivation. This variety is also suitable to grow under low water availability conditions.





DIRECT SEEDED AEROBIC CULTIVATION
Perfect for modern dry directed aerobic systems

LOW WATER AVAILABILITY
Thrives under low water conditions

TOLERANT TO MAJOR DISEASES & INSECT PESTS
Stronger protection for stable yields

BETTER GRAIN QUALITY
Medium slender grains with pleasing cooking quality

HIGH YIELD 4.4 T/HA

DURATION 113 - 120 DAYS

Pedigree	CR 691-1 / CR Dhan 202
Ecology	Aerobic
Grain type	Medium Slender
Notification No	S.O. 1560 (E) | 26/03/2024

SALIENT FEATURES

Suitable for water limited aerobic conditions.

RECOMMENDED STATES

Odisha, Gujarat and Tamil Nadu.

MILLING AND GRAIN QUALITY	
Plant Height:	102-110
1000 Grain Weight:	20
KL:	5.72 mm
KB:	2.06 mm
L/B Ratio:	2.78
Hulling:	79.85%
Milling:	71.20%
Head Rice Recovery:	64.60%
Amylose Content:	24.75
Aikali Spreading Value:	7.0
Gel Consistency:	24mm



GRAIN COMPARISON



HUSKED GRAIN



POLISHED RICE

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DRR Dhan 77

IET 28636 | High Yielding Aerobic Direct Seeded Variety

DRR Dhan 77 is an early duration aerobic variety suitable for direct seeding. It is a pure line selection from the advanced line GSR-IR1-DQ146-L18-Y1. It possesses long slender grains.

भाकृअनुप
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Grain Type: Long Slender



AEROBIC DIRECT-SEEDING PERFORMANCE

Ecology:	Aerobic Direct Seeded Conditions
Grain Yield:	4.2 t/ha
Plant height (cm):	92 cm
Duration (days):	115-120 days (seed to seed)

DISEASE RESISTANCE

Moderately resistant to leaf blast, neck blast and brown spot.

Recommended States:
Bihar, Gujarat and Tamil Nadu.

GRAIN QUALITY & TECHNICAL SPECIFICATIONS

1000 grain weight (g):	L/B ratio:	Head rice recovery (%)	Alkali spreading value:	Amylose content (%):	Gel content (mm):
20 g	3.33	55 %	5	24.4%	33 mm

Rice Variety:	DRR Dhan 77 (IET 28636)
Variety Type:	High Yielding Aerobic Direct Seeded Variety
Disease and Pest Resistance:	Moderately resistant to leaf blast, neck blast and brown spot.
Parentage:	GSR-IR1-DQ146-L18-Y1
Notification No:	S.O. 4388 (E) | 08/10/2024
Ecology:	Aerobic Direct Seeded Conditions

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DRR Dhan 90

IET 29581 | Low Soil Nitrogen Tolerant Rice Variety



Suitable with 50% of recommended Nitrogen dosage

DRR Dhan 90 is a low soil Nitrogen tolerant rice variety identified in 2025. It is suitable for cultivation in 50% of recommended dosage of Nitrogen application with **4.6 t/ha** under 50% N; **2.5 to 3.0 t/ha** under 0% N.

NITROGEN RESPONSE



EXCELLENT YIELD EVEN AT 50% N = **4.6 t/ha under 50% N**

Low Nitrogen • High Efficiency • High Yield

AT-A-GLANCE

Ecology:	Irrigated Low Nitrogen Conditions
Grain Type:	Short Bold
Duration:	125–130 days
Yield:	4.6 t/ha under 50% N; 2.5–3.0 t/ha under 0% N

GRAIN & COOKING QUALITY



HRR: 64.70%
AC: 22.7%
GC: 22.3 mm
ASV: 4.0

SALIENT FEATURES

Moderate resistance to leaf blast, neck blast, sheath rot, plant hoppers, stem borer and whorl maggot.

PEDIGREE

BPT 5204 / Varadhan

RECOMMENDED STATES

Andhra Pradesh, Telangana and Karnataka (Zone VII).

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HEAT TOLERANT

RICE VARIETIES

- ❖ DRR Dhan 47 (IET – 23356)
- ❖ DRR Dhan 52 (IET – 23354)

DRR Dhan 47

IET 23356 | Heat Tolerant Rice Variety



An early maturing variety suited for both normal and late planting. It is developed from F3 breeding material derived from the cross IR78877-208-B-1-1/IR78878-53-2-2-2 shared by IRRI, Philippines. It exhibits heat tolerance at elevated temperatures of 5-8°C during the reproductive stage





HEAT TOLERANCE
It exhibits heat tolerance at elevated temperatures of **5-8°C during the reproductive stage**

DISEASE AND PEST RESISTANCE

Resistant to blast

KEY PERFORMANCE

Grain Yield
5.5 t/ha

Plant height (cm)
115-120 cm

Duration (days)
110-115 days (seed to seed)

VARIETY INFORMATION

Rice Variety:	DRR Dhan 47 (IET 23356)
Variety Type:	Heat Tolerant Rice Variety
Released for States:	Telangana, Andhra Pradesh, Karnataka, Kerala, Puducherry
Grain Type:	Long Bold
Grain Yield:	5.5 t/ha
Disease and Pest Resistance:	Resistant to blast
Ecology:	Irrigated
Season:	Kharif
Plant height (cm):	115-120 cm
Duration (days):	110-115 days (seed to seed)

IDENTIFICATION & RELEASE DETAILS

Parentage:	IR78877-208-B-1-1/ IR78878-53-2-2-2
IET No:	23356
Year:	2018
Notification No:	S.O. 1379 (E) | 27/03/2018
Protection of Plant Varieties and Farmers' Rights Authority Number:	2022/0036

GRAIN QUALITY & PHYSICAL CHARACTERISTICS

1000 grain weight (g):	24.4 g
L/B ratio:	2.67
Head rice recovery (%):	66%
Alkali spreading value:	4
Amylose content (%):	19.7%
Gel Consistency (mm):	55 mm

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DRR Dhan 52

IET-23354

A high yielding drought and heat tolerant variety with lodging and blast resistance



DROUGHT & HEAT TOLERANT
Reproductive stage heat tolerance with high yield under elevated temperature up to 5-8°C.

DIRECT SEEDING SUITABILITY
Suitable for direct seeding.

LODGING RESISTANCE
Strong and sturdy plant type for better field standing.

BLAST RESISTANCE
Built-in resistance to blast disease.

HIGH YIELD
5.9 t/ha

DESCRIPTION

DRR Dhan 52 (IET-23354) is a drought and heat tolerant variety with lodging and blast resistance suitable for direct seeding. It has reproductive stage heat tolerance with high yield under elevated temperature up to 5-8°C. It recorded significant increase in chlorophyll and carotenoid content during heat stress at vegetative as well as reproductive stages.

KEY HIGHLIGHTS

It has long bold grain possessing good cooking qualities like 66% of Head rice recovery, 6.23 mm Kernel length, 2.34 mm Kernel breadth. A Alkali spreading value, 19.7% Amylose content, 55 mm Gel consistency. Cultivated in areas with irrigated/transplanted and low fertile areas.

a. whole grain,
b. brown/hulled rice
c. polished rice
and d. cooked rice

GRAIN TYPE: LONG BOLD





AGRONOMIC SPECIFICATIONS

Pedigree	IR 78877-208-B-1-1/IR78878-53-2-2-2
Ecology	Irrigated
Grain type	Long Bold
Duration	110-115 Days
Yield	5.9 t/ha
Plant height	110-120 cm
1000-grain weight	23.5 g
L/B ratio	2.67

GRAIN AND COOKING QUALITY

Head rice recovery:	66%
Kernel length:	6.23 mm
Kernel breadth:	2.34 mm
Alkali spreading value:	4
Amylose content:	19.70%
Gel consistency:	55 mm

SALIENT FEATURES

DRR Dhan 52 can replace popular varieties like Sahbhagi Dhan, MTU1010 and IR64.

RECOMMENDED STATES

Haryana, Gujarat, Bihar and Odisha.



Notification No:
S.O. 1498 (E) | 01/04/2019
PPV and FRA Number:
2022/0039

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SALINITY TOLERANT
RICE VARIETIES

- ❖ DRR Dhan 58 (IET – 28784)
- ❖ DRR Dhan 68 (BRRI Dhan 99)

DRR Dhan 58

IET 28784

Low GI, BLB Resistant, Salinity Tolerant Fine Grain Variety

DRR Dhan 58 possesses seedling stage salinity tolerance QTL, Saltol **Saltol** along with three major bacterial blight resistance genes **Xa21, xa13 and xa5** and exhibited good tolerance to salinity in coastal areas and high level of resistance to bacterial blight across the country. It yields **24%** more under saline conditions than other regular varieties.



- Low Glycemic Index
- Seedling-stage salinity tolerance QTL **Saltol**
- Three bacterial blight resistance genes **Xa21, xa13 and xa5**
- Good tolerance to salinity in **coastal areas**
- High-level bacterial-blight resistance **across the country**

AGRONOMIC & IDENTITY PROFILE

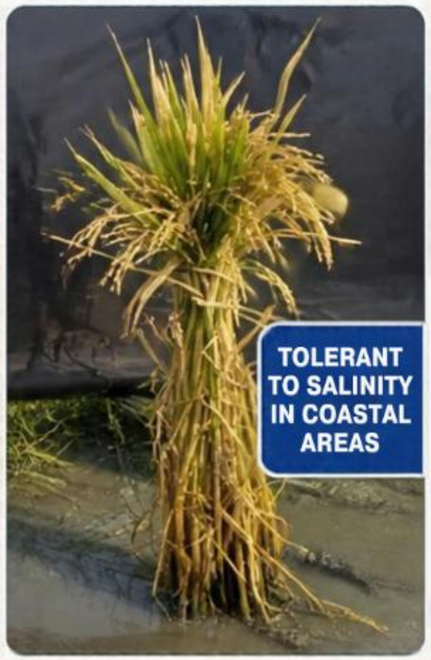
Pedigree:	Improved Samba Mahsuri*3/FL478
Ecology:	Irrigated
Grain type:	Medium Slender
Duration:	130-135 Days
Yield:	5.5 t/ha
Notificatio No:	S.O. 8 (E) | 24/12/2021
PPV & FRA No:	2022/0016
Plant height:	95 cm
1000 grain weight:	19.5 g

GRAIN & COOKING QUALITY

- Head Rice Recovery: **61.6%**
- Alkali Spreading Value: **4.0**
- Amylose Content: **23.35%**
- Gel Consistency: **22 mm**

GRAIN TYPE – MEDIUM SLENDER





YIELDS 24% MORE

UNDER SALINE CONDITIONS THAN OTHER REGULAR VARIETIES

RECOMMENDED STATES

Telangana, Andhra Pradesh, Tamil Nadu, Karnataka, Chhattisgarh, Orissa, Jharkhand, Bihar, Gujarat and Maharashtra.

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DRR Dhan 68

BRRI Dhan 99

High Yielding Rice Variety Suitable for Saline Soils and *Boro* Season

- HIGH YIELDING 5.6 T/HA
- SUITABLE FOR SALINE SOILS
- SUITABLE FOR BORO SEASON



VARIETY OVERVIEW

DRR Dhan 68 is high yielding, long slender grain type rice variety suitable for saline soils and boro season. This was developed through hybridization between Huang-Hua-Zhan (IRRI, Philippines) and OM1723 (Vietnam). BRRI in 2013-14 received this material from IRRI, Philippines, and subsequently tested it in farmers' fields in 2016-17, 2017-18, and 2018-19 in southern Bangladesh's saline areas.

DEVELOPMENT AND TESTING

- developed through hybridization between Huang-Hua-Zhan (IRRI, Philippines) and OM1723 (Vietnam)
- BRRI in 2013-14 received this material from IRRI, Philippines
- tested in farmers' fields in 2016-17, 2017-18, and 2018-19 in southern Bangladesh's saline areas.

VARIETY IDENTITY

Pedigree	Huang-Hua-Zhan/OM1723
Ecology	Boro
Grain type	Long Slender
Duration	145 - 157 days
Yield	5.6 t/ha
Notification No	S.O. 4065 (E) | 31/08/2022

GRAIN COMPARISON (BRRI DHAN 99)



HUSKED GRAIN



POLISHED RICE



GRAIN AND QUALITY

Plant Height(cm):	93 cm
1000 Grain Weight(g):	22.8 g
L/B Ratio:	3.1
HRR:	Translucent
ASV:	67.7
AC:	7.0
GC:	27.1 mm

SALIENT FEATURES

Boro Irrigated under irrigated conditions, Clay loam to Loam soils.

RECOMMENDED STATES

Assam, Tripura and West Bengal.



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BIOFORTIFIED

RICE VARIETIES

- ❖ DRR Dhan 45 (IET – 23832)
- ❖ DRR Dhan 48 (IET – 24555)
- ❖ DRR Dhan 49 (IET – 24557)
- ❖ DRR Dhan 63 (IET – 26383)
- ❖ DRR Dhan 67 (BRRI Dhan 84)
- ❖ DRR Dhan 69 (BRRI Dhan 100)
- ❖ DRR Dhan 81 (IET – 31929)
- ❖ DRR Dhan 93 (IET – 31947)
- ❖ DRR Dhan 94 (IET – 31925)
- ❖ DRR Dhan 96 (IET – 31045)

DRR Dhan 45

IET 23832 | First biofortified high zinc variety



It is a biofortified zinc-rich variety is the first of its kind combining high zinc content (22.3 ppm in polished rice) and high yield (5.2 t/ha). It is a mid early duration variety possessing long slender grains



Grain Yield:	Plant height (cm):	Duration (days):
5.2 t/ha	105 cm	130 days (seed to seed)

BIOFORTIFIED HIGH ZINC

High zinc content **22.3 pp min** polished rice

High yield **5.2 t/ha**

DISEASE AND PEST RESISTANCE

Moderately resistant to leaf blast

Ecology:	Irrigated
Season:	Kharif
Released for States:	Tamil Nadu, Karnataka and Andhra Pradesh
Variety Type:	First biofortified high zinc variety
Grain Type:	Long Slender

1000 grain weight (g):	20 g	Alkali spreading value:	3.5
L/B ratio:	3.47	Amylose content (%):	21.1%
Head rice recovery (%):	55.6%	Gel Consistency (mm):	54.0

IDENTIFICATION AND RIGHTS

Rice Variety: DRR Dhan 45 (IET 23832)
Parentage: IR 73707-45-3-2-3 / IR 77080-B-34-3
IET No: 23832
Year: 2016

Notification No: 1438 (E) | 18/04/2016

Protection of Plant Varieties and Farmers' Rights Authority Number: 2019/92

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DRR Dhan 63

IET-26383

Zinc rich rice variety



DESCRIPTION

DRR Dhan 63 is a high yielding **biofortified** rice variety possessing high Zn (24.2 ppm) in polished grains as against 16-17 ppm existing in popular rice varieties. Although rice is a major food crop, it is a poor source of essential micronutrients such as **Zinc** leading to **hidden hunger**. In this context DRR Dhan 63 is found to be promising with enhanced Zn content and developed through pedigree method of **breeding**.It showed excellent grain and cooking quality.

ZINC COMPARISON



Popular Varieties (16-17 ppm)	DRR Dhan 63 (IET-26383) (24.2 ppm)	Other Varieties (16-17 ppm)

HIDDEN HUNGER

Rice is a major food crop, but a poor source of Zinc, leading to hidden hunger.

DRR Dhan 63 helps fight hidden hunger through **biofortification.**

VARIETY IDENTITY

Pedigree: IET 17280 / Pusa Basmati 1
Ecology: Biofortification
Grain type: Short Bold
Duration: 127-130 days
Yield: 5.0 t/ha
Notification No: S.O. 8 (E) | 24/12/2021
Plant height: 103-107 cm
1000 grain weight: 15.6 g

5.0 t/ha
High Yield Potential

GRAIN QUALITY

HUSKED (BROWN) GRAIN



POLISHED (WHITE) RICE



SAIN & COOKING QUALITY

Kernel length:	4.35 mm
Kernel width:	2.09 mm
L/B ratio:	2.08
Milling recovery:	70%
Head Rice Recovery:	59.3 %
Amylose Content:	24.5%
ASV:	4
GC:	26 mm

SALIENT FEATURES

It is a nutritionally rich variety combining **high yield, high Zn** content and good cooking quality features can easily be adopted by the farmers.

RECOMMENDED STATES

Uttar Pradesh, Odisha and Kerala.

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DRR Dhan 48

IET 24555 | Low GI, Zinc Rich, BLB Resistant and Saline Tolerant Fine Grain Rice Variety



It is a bio-fortified variety with high grain zinc (22 ppm in polished rice) coupled with high yield derived from RPBio226*1/CSR27 cross. Zn content is nearly 5 ppm higher than the check varieties IR 64 and BPT 5204. It is a mid-duration variety possessing medium slender grains. Additionally it exhibits resistance to BLB possessing *Xa21*, *xa5* and *xa13* genes

KEY PERFORMANCE

Grain Yield:	Plant height (cm):	Duration (days):
5.2 t/ha	**92-95 cm**	**135-140 days**(seed to seed)

Rice Variety	:	DRR Dhan 48 (IET 24555)
Variety Type	:	Low GI, Zinc Rich, BLB Resistant and Saline Tolerant Fine Grain Rice Variety
Released for States	:	Andhra Pradesh, Telangana, Tamil Nadu, Karnataka and Kerala
Grain Type	:	Medium Slender
Grain Yield	:	5.2 t/ha
Disease and Pest Resistance	:	Moderately resistant to RTD, sheath rot, neck blast and brown spot
Parentage	:	Improved samba Mahsuri*1/CSR27
Ecology	:	Irrigated
Season	:	Kharif

ZINC & BIOFORTIFICATION

22 ppm in polished rice nearly 5 ppm higher than the check varieties IR 64 and BPT 5204

BLB RESISTANCE

Additionally it exhibits resistance to BLB possessing Xa 21 xa5 and xa 13 genes

DISEASE AND PEST RESISTANCE

Moderately resistant to RTD, sheath rot, neck blast and brown spot

IDENTIFICATION

IET No	24555
Year	2018
Notification No:	S.O. 1379 (E) | 27/03/2018
Protection of Plant Varieties and Farmers' Rights Authority Number	2022/0021

GRAIN QUALITY & TECHNICAL SPECIFICATION

1000 Grain Weight:	L/B ratio	Head rice recovery (%)	Alkali spreading value	Amylose content (%)	Gel Consistency (mm)
15.4 g	**2.6**	**60.9%**	**7**	**24%**	**28.5 mm**

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DRR Dhan 49

IET 24557 | Biofortified Zinc Rich Variety



DRR Dhan 49 is a zinc enriched (25.2 ppm in polished rice) high yielding variety with medium duration and medium slender grains. It's Zn content is nearly 8 ppm higher than the check **varieties IR 64 and BPT 5204.**

Rice Variety:	DRR Dhan 49 (IET 24557)
Variety Type:	Biofortified Zinc Rich Variety
Released for States:	Gujarat, Maharashtra and Kerala
Grain Type:	Medium slender
Grain Yield:	4.8 t/ha
Disease and Pest Resistance:	Moderately resistant to BLB, RTD, sheath rot, neck blast and brown spot
Parentage:	RPBio 226*1/CSR27
IET No:	24557
Year:	2018
Notification No:	S.O.1379 (E) | 27.03.2018
Protection of Plant Varieties and Farmers' Rights Authority Number:	2022/0019
Ecology:	Irrigated
Season:	Kharif


PADDY (HUSK)


POLISHED RICE

ZINC BIOFORTIFICATION
25.2 ppm in polished rice
nearly 8 ppm higher than the check varieties IR 64 and BPT 5204

BLB RESISTANCE
It shows resistance to BLB (Xa21+xa13+xa5)

DISEASE AND PEST RESISTANCE
Moderately resistant to BLB, RTD, sheath rot, neck blast and brown spot

KEY PERFORMANCE

Grain Yield:	Plant height (cm):	Duration (days):
4.8 t/ha	**95-100 cm**	**130-135 days (seed to seed)**

GRAIN QUALITY & MILLING CHARACTERISTICS

1000 grain weight (g)	L/B ratio	Head rice recovery (%)	Alkali spreading value	Amylose content (%)	Gel Consistency (mm)
19.2 g	2.6	61.1%	7	23.3%	23 mm

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DRR Dhan 67

BRRI Dhan 84

High Yielding, High Zinc, Red Pericarp,
Long Slender Grain Type Rice Variety



HIGH ZINC
&
RED PERICARP
LONG SLENDER GRAIN TYPE

- ZINC 27.6 mg/kg more than 8.2 mg/kg from other varieties
- 3.0 mg/kg more than another zinc enriched variety BRRI Dhan 74
- The incidence of diseases and pests in BRRI Dhan 84 is relatively low.

YIELD CAPABILITY
6.0-6.5 t/ha

IN FAVORABLE CONDITIONS, UP TO
8.0 tons/ha

Description: DRR Dhan 67 is high yielding, high zinc red pericarp, Long slender grain type. It has strong culm and this doesn't lodge. Because of the erect and long flag leaf, plants look appealing. This variety is capable to produce yield of **6.0- 6.5 tons/ha**. Whereas, in favorable conditions, it can produce up to **8.0 tons/ha**.

Key Highlights: Its zinc **27.6 mg/kg** that's more than **8.2 mg/kg** from other varieties and **3.0 mg/kg** more than another zinc enriched variety BRRI Dhan 74. The incidence of diseases and pests in BRRI Dhan 84 is relatively low.



VARIETY IDENTITY

Pedigree:	BRRidhan29/IR68144/ IBRRi dhan28//BR11
Ecology:	Boro
Grain type:	Long Slender
Duration:	140 - 145 days
Yield:	5.6 t/ha
Notification No:	S.O. 4065 (E) | 31/08/2022

GRAIN AND QUALITY

Plant Height(cm): 96 cm
1000 Grain Weight(g): 22.8 g
L/B Ratio: 3.3
HRR: 60%
AC: 23.70 %
GC: Optimum
ASV: Intermediate

HUSKED GRAIN



MILLED RED PERICARP RICE



SALIENT FEATURES

Boro Irrigated under irrigated conditions, Clay loam to Loam soils.

RECOMMENDED STATES

Assam, Tripura and West Bengal.

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DRR Dhan 69

BRRI Dhan 100

High Yielding, High Zinc,
Long Slender Grain Rice Variety

HIGH ZINC FOR BETTER NUTRITION

SUITABLE FOR BORO SEASON



HIGH YIELD
6.5 t/ha

ABOUT THE VARIETY

DRR Dhan- 69 is high yielding, high zinc with long slender grain rice variety suitable for cultivation in boro season. This variety was evaluated in regional centers of BRRI for 5 years and evaluated through on-farm trials in 2019. The incidence of diseases and pests in BRRI Dhan 100 is relatively low.

Pedigree:	BR7166-5B-5/BG305/BRRI dhan29
Ecology:	Boro
Grain type:	Long Slender
Duration:	148 days
Yield:	6.5 t/ha
Notification No:	S.O. 4065 (E) | 31/08/2022

GRAIN AND QUALITY

Plant Height(cm):	101 cm
1000 Grain Weight(g):	16.7 g
L/B Ratio:	2.75
HRR:	64%
AC:	26.8%



HUSKED GRAIN



POLISHED RICE

EVALUATION AND FIELD SUITABILITY

- evaluated in regional centers of BRRI for 5 years
- evaluated through on-farm trials in 2019
- Boro Irrigated under irrigated conditions, Clay loam to Loam soils.

RECOMMENDED STATES

Assam, Tripura and West Bengal.

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DRR Dhan 81

IET 31929 | Low Glycaemic Index (GI) and High Zinc Rice Variety



Low Glycaemic Index:
GI 55.0

Moderately High Zinc:
22.3ppm

DRR Dhan 81, a medium-duration rice variety with a low glycemic index (GI 55.0). The variety possesses moderately high zinc content (22.3 ppm) along with desirable grain and cooking quality. It exhibits tolerance to salinity and bacterial leaf blight (BLB).

AT-A-GLANCE

- **Ecology:** Irrigated Saline
- **Duration:** 130-135 Days
- **Grain Type:** Short Bold
- **Grain Yield:** 5.2-5.5 t/ha

GRAIN AND COOKING QUALITY



SALINITY AND DISEASE/PEST RESISTANCE

Salinity tolerant; moderately resistant to Stem Borer; moderately tolerant to Bacterial Leaf Blight (BLB).

RELEASED FOR STATES

Bihar, Uttar Pradesh, Assam, Gujarat, Maharashtra, Kerala & Karnataka.

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DRR Dhan 93

IET 31947 | A Zinc rich fine grain variety with moderate resistance to diseases and moderate tolerance to pest Rice variety.

ZINC BIOFORTIFICATION
23.41ppm

DRR Dhan 93 is biofortified zinc (23.41 ppm) rich variety and possesses moderate resistance to various diseases and moderate tolerance to plant hopper with good cooking quality grain.



YIELD	DURATION	HRR
6.0 t/ha	120-126 days	59.53%

Rice Variety:	DRR Dhan 93 (IET 31947)
Variety Type:	A Zinc rich fine grain variety with moderate resistance to diseases and moderate tolerance to pest Rice variety.
Pedigree:	MTU 1010 / Chittimuthyalu
Ecology:	Biofortification
Grain Type:	Medium Slender
Duration:	120-126 days
Yield:	6.0 t/ha
HRR:	59.53%
L/B Ratio:	3.14
ASV:	7.0
AC:	21.94%
GC:	23.67 mm

SALIENT FEATURES

Moderate resistance to Brown Spot, Bacterial Blight, Neck Blast, Sheath Blight, Sheath Rot, and Leaf Blast Moderate Tolerance to Plant hoppers.

VARIETY HIGHLIGHTS

- A Zinc rich fine grain variety
- Biofortification
- Medium Slender grain
- Good cooking quality grain

RECOMMENDED STATES

Gujarat and Maharashtra.

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DRR Dhan 94

IET 31925 | Zinc Rich fine Grain Rice Variety with Zinc content in polished Rice

DRR Dhan 92 is a Bio-fortified Zinc Rich fine grain variety with Zinc content (24.46 ppm) in the rice grain after polishing. It has Moderate Resistance to Neck Blast, Sheath Blight, Leaf Blast, Brown Spot.



ZINC BIOFORTIFIED
24.46 ppm
in the rice grain after polishing

RP 6731-BCRK-RIL-BCR K-4

YIELD:	DURATION:	HRR:
4.935 t/ha	125-130 days	60.77%

Rice Variety:	DRR Dhan 94 (IET 31925)
Variety Type:	Zinc Rich fine Grain Rice Variety with Zinc content in polished Rice
Pedigree:	RNR 15048 *1/Karuppunel
Ecology:	Biofortification
Grain Type:	Medium Slender
Duration:	125-130 days
Yield:	4.935 t/ha



SALIENT FEATURES

Moderate resistance to leaf blast, Brown spot, Bacterial blight, Sheath blight, neck blast.

RECOMMENDED STATES

Assam and Tripura

GRAIN AND COOKING QUALITY

HRR:	L/B Ratio:	ASV:	AC:	GC: 24
60.77%	2.75	4.0	27.61%	mm

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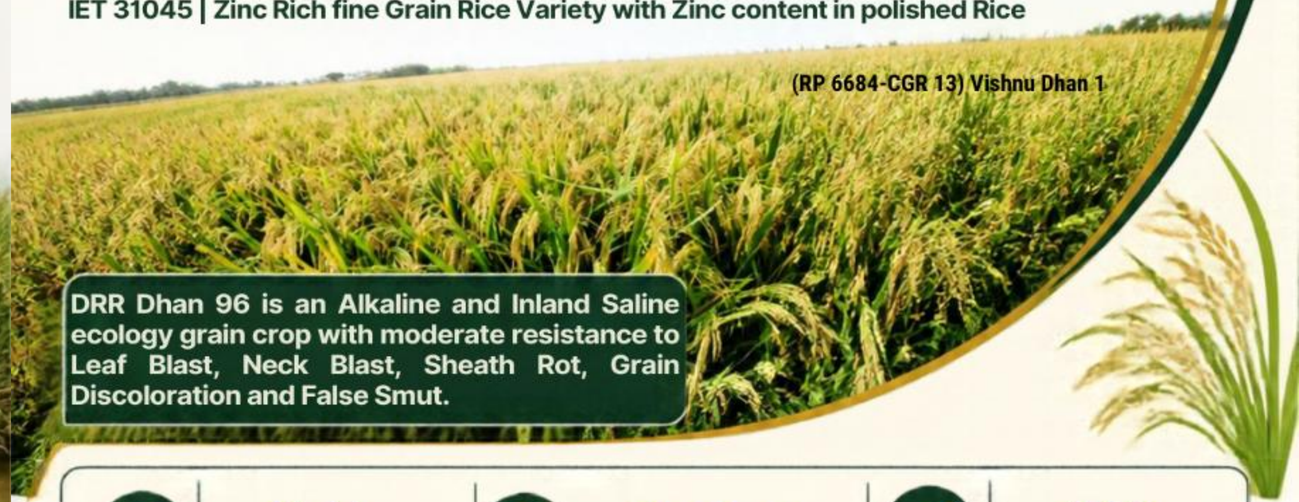
DRR Dhan 96

IET 31045 | Zinc Rich fine Grain Rice Variety with Zinc content in polished Rice



DRR Dhan 96 is an Alkaline and Inland Saline ecology grain crop with moderate resistance to Leaf Blast, Neck Blast, Sheath Rot, Grain Discoloration and False Smut.

Yield:	Duration:	HRR:
4.0 t/ha	120-135 days	61.10%

SALINE-ADAPTATION PERFORMANCE

Ecology: Alkaline and Inland Saline

Gain Over Salinity Check CSR 23: 121%

Gain Over Salinity Check CSR 10: 132%

DISEASE RESISTANCE

moderate resistance to Leaf Blast, Neck Blast, Sheath Rot, Grain Discoloration and False Smut.

SALIENT FEATURES

Moderate resistance to Leaf Blast, Neck Blast, Brown Spot.

Variety Type:
Zinc Rich fine Grain Rice Variety with Zinc content in polished Rice

Grain Type:
Short Slender

Rice Variety: DRR Dhan 96 (IET 31045)
Pedigree: Samba Mahsuri*2 / *Oryza rufipogon-3-TRP-3*
Ecology: Alkaline and Inland Saline
Duration: 120-135 days
Yield: 4.0 t/ha
HRR: 61.10%
ASV: 3.0
AC: 21.50%
GC: 51 mm
Recommended States: Karnataka, Telangana and Andhra Pradesh.

GRAIN APPEARANCE


IET-31045


IET-31045

COOKING QUALITY & GRAIN CHARACTERISTICS

HRR	L/B Ratio	ASV	AC	GC
61.10%	3.135	3.0	21.50%	51 mm

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LOW PHOSPHOROUS TOLERANT RICE VARIETIES

- DRR Dhan 60 (IET – 28061)
- DRR Dhan 65 (IET – 27641)
- DRR Dhan 66 (IET – 28066)
- DRR Dhan 73 (IET – 30242)
- DRR Dhan 74 (IET – 30252)
- DRR Dhan 78 (IET – 30240)
- DRR Dhan 87 (IET – 31110)
- DRR Dhan 88 (IET – 28070)
- DRR Dhan 97 (IET – 31108)
- DRR Dhan 98 (IET – 31102)



DRR Dhan 60

IET 28061

Low Soil Phosphorous Tolerant Fine Grain Variety

DRR Dhan 60 is the **first low soil phosphorous tolerant variety**. It possesses low soil phosphorous **tolerance QTL, Pup1** along with **three major bacterial blight resistance genes Xa21, xa13 and xa5** and exhibited **good tolerance to low soil phosphorous** and **high level of resistance to bacterial blight**.

LOW SOIL PHOSPHOROUS TOLERANT

BACTERIAL BLIGHT RESISTANT

AGRONOMIC SPECIFICATIONS

Pedigree:	RP BIO 226*2/Swarna
Ecology:	Irrigated Early
Grain type:	Medium Slender
Duration:	125-130 days
Yield:	5.0 t/ha under 40 kg P2O5
Notification No:	S.O. 4065 (E) | 31/08/2022
PPV & FRA No:	2022/0023
Plant height:	88 cm
1000 grain weight:	19.45 g

GRAIN & COOKING QUALITY

HRR:	64.5%
L/B ratio:	2.52
ASV:	7.0
AC:	23.23%
GC:	22 mm



HUSKED GRAIN | MILLED RICE

RECOMMENDED STATES

Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, Odisha, Chhattisgarh, Jharkhand, Bihar, Gujarat and Maharashtra.

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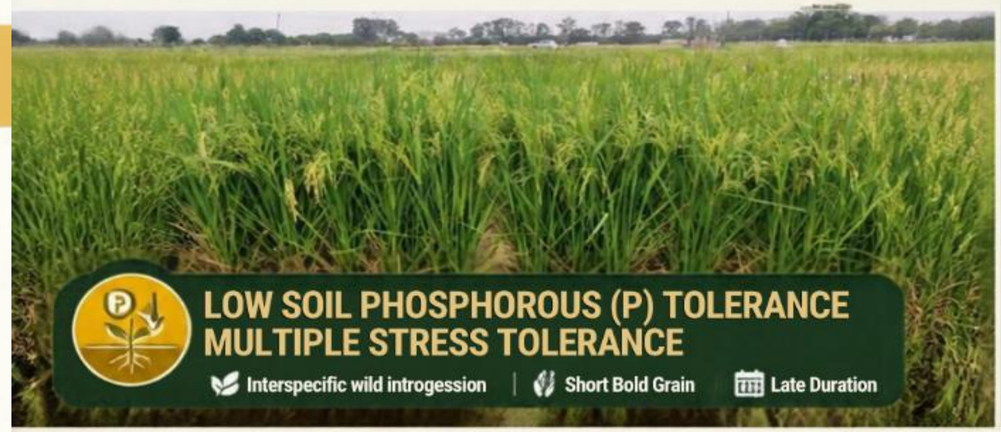
DRR Dhan 65

IET-27641

A high-yielding, low soil phosphorous (P) tolerant, late duration rice variety with multiple stress tolerance



LOW SOIL PHOSPHOROUS (P) TOLERANCE
MULTIPLE STRESS TOLERANCE
Interspecific wild introgression | Short Bold Grain | Late Duration



DESCRIPTION

DRR Dhan 65 is an interspecific wild introgression line with short bold grains which is high yielding under both normal and low soil phosphorous conditions. It gives an average yield of 6.5 t/ ha (under normal conditions; 60 kg/ha of P, i.e. recommended dose) and 4.7 t/ ha (under low Phosphorus; 40 kg/ha of P).

YIELD COMPARISON

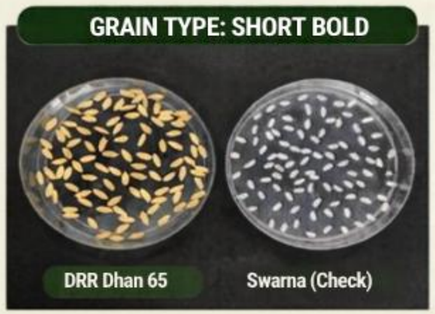
NORMAL CONDITIONS 60 kg/ha of P (Recommended dose)	LOW PHOSPHORUS 40 kg/ha of P
6.5 t/ ha	4.7 t/ ha

YIELD (Field)

6.0 t/ha (Normal)

4.7 t/ha (Low P)

GRAIN TYPE: SHORT BOLD



DRR Dhan 65 | Swarna (Check)

AGRONOMIC SPECIFICATIONS

Pedigree	KMR 3 / *O rufipogon*
Ecology	Low phosphorous
Grain type	Short Bold
Duration	130-135 Days
Yield	6.0 t/ha (Normal) and 4.7 t/ha (Low P)
Notification No	4065 (E) | 31/08/2022
Plant height	123 cm
1000 grain weight	23.8 g

GRAIN & COOKING QUALITY

L/B ratio:	2.16
HRR:	97.5%
ASV:	5
AC:	25.88%
GC:	45 mm

SALIENT FEATURES

It recorded average grain yield advantage of **(in terms of weighted average) over the Positive check Swarna (late duration) under** 100% and 50% application of phosphorous.



RECOMMENDED STATES



- Telangana
- Andhra Pradesh
- Karnataka
- Chhattisgarh
- Jharkhand
- Maharashtra

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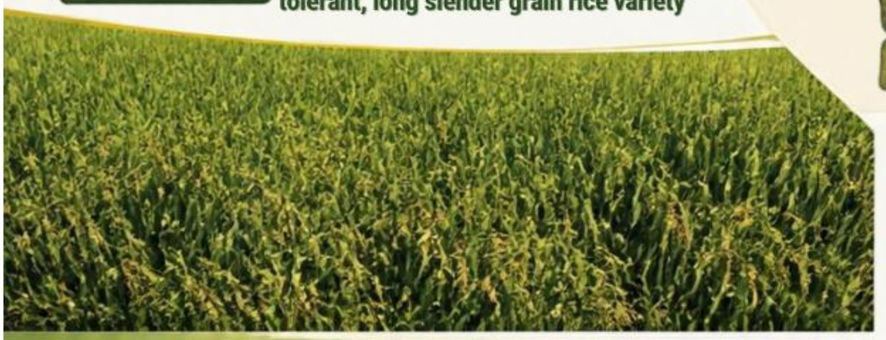
DRR Dhan 66

IET-28066 A high-yielding, low soil phosphorous (P) tolerant, long slender grain rice variety

MAS DERIVED
LOW SOIL PHOSPHOROUS (P) TOLERANCE

Major QTL/GENE
Pup1
(Located on chr.12)





DESCRIPTION

DRR Dhan 66 is a MAS derived low soil phosphorous (P) tolerant rice variety developed in the genetic background of a very popular rice variety, MTU 1010 (Cotton Dora Sannalu). It is possessing a major QTL/gene associated with low soil phosphorous tolerance, Pup1 (located on chr.12) and gives a maximum yield of 4,3 t ha^{1}fat 60 kg/ha Phosphorous, 4,2 t ha^{1} at 40 kg/ha Phosphorous and 3,9 t ha^{1}at 20 kg/ha Phosphorous.

YIELD PERFORMANCE ACROSS PHOSPHOROUS LEVELS

P-LEVEL 40 KG/HA PHOSPHOROUS	P-LEVEL 40 KG/HA PHOSPHOROUS	P-LEVEL 20 KG/HA PHOSPHOROUS
+ 4.3	+ 4.2	+ 3.9

KEY HIGHLIGHTS

- It is comparable to its current parent **MTU 1010** in physico-chemical characteristics and quality traits.
- It possesses **long slender grain type** with High HRR and has good cooking Quality.

VARIETY IDENTITY

Pedigree	MTU 1010 *2/ Swarna
Ecology	Low Phosphorous
Grain type	Long Slender
Duration	120 - 125 days
Yield	5.0 t/ha
Notification No	S.O. 4065 (E) | 31/08/2022
Plant Height(cm)	83-85 cm
1000 Grain Weight(g)	24.3 g



GRAIN AND QUALITY

L/B Ratio:	2.55
HRR:	7.8%
AC:	23.70%
GC:	64 mm
ASV:	4.0

CULTIVATION GUIDANCE

- Irrigated low-land
- soil pH between 5 to 8
- 15 kg seed is sufficient for per acre of transplantation and gives a maximum yield of 4,3 t ha^{1}
- Spacing (during transplanted): row to row 20 cm and plant to plant 15 cm.

RECOMMENDED STATES

Telangana and Andhra Pradesh.

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DRR Dhan 74

IET 30252 | Low Soil Phosphorus Tolerant Variety

DRR Dhan 74 is a high yielding, low soil phosphorus tolerant medium duration variety. It is an inter-specific wild introgression line possessing short bold grains. It is well suited for low phosphorus soils with superior yield.







LOW-PHOSPHORUS ADAPTATION

Ecology: Irrigated Low Phosphorus conditions

Grain Yield: 4.5 t/ha

It is well suited for low phosphorus soils with superior yield.

PERFORMANCE HIGHLIGHTS

Plant height (cm): 115-120 cm

Duration (days): 130-135 days (seed to seed)

Head rice recovery (%): 62.2%

RESISTANCE

Disease and Pest Resistance:
Moderately resistant to leaf blast, neck blast, sheath rot, brown spot, sheath blight, RTV, plant hoppers and stem borer

Rice Variety:	DRR Dhan 74 (IET 30252)
Variety Type:	Low Soil Phosphorus Tolerant Variety
Grain Type:	Medium Slender
Grain Yield:	4.5 t/ha
Parentage:	KMR 3/ Oryza rufipogon
Notification No:	S.O. 4388 (E) | 08/10/2024
Ecology:	Irrigated Low Phosphorus conditions
Plant height (cm):	115-120 cm
Duration (days):	130-135 days (seed to seed)
1000 grain weight (g):	24.2 g
L/B ratio:	2.2
Head rice recovery (%):	62.2%
Alkali spreading value:	7
Amylose content (%):	23.7%
Recommended States:	Karnataka, Maharashtra, Telangana and Jharkhand

Disease and Pest Resistance:
Moderately resistant to leaf blast, neck blast, sheath rot, brown spot, sheath blight, RTV, plant hoppers and stem borer

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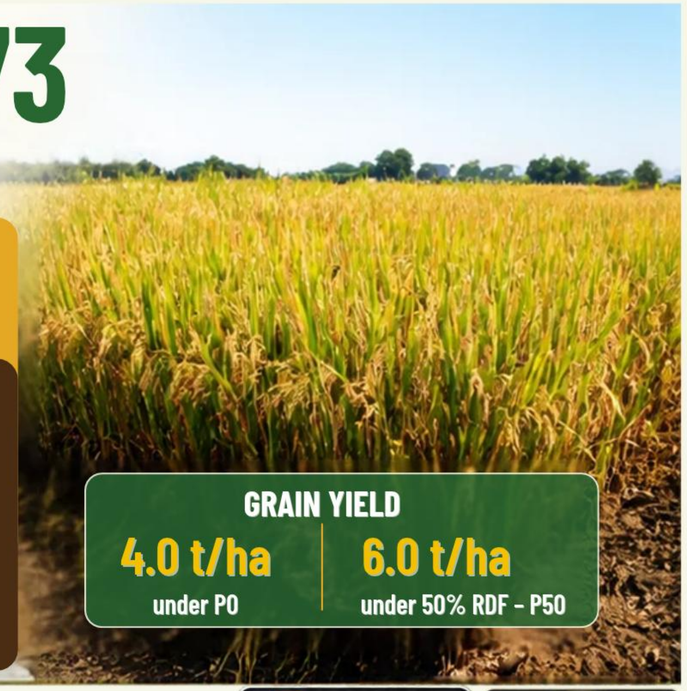
DRR Dhan 73

IET 30242

Low Soil Phosphorous Tolerant Variety

- Thrives in **low phosphorous soils**
- **High yielding** potential
- **Early maturing** variety



GRAIN YIELD

4.0 t/ha	6.0 t/ha
under P0	under 50% RDF – P50

DRR Dhan 73 is an induced mutant derived from Samba Mahsuri using ethyl methane sulfonate. It is a high yielding early maturing variety suitable for low phosphorus soils.

Parentage	EMS Mutant of Samba Mahsuri
Notification No	S.O. 4388 (E) | 08/10/2024
Disease and Pest Resistance	Resistant to false smut, and moderately resistant to neck blast, brown spot and leaf blast





FIELD PROFILE

Ecology:
Irrigated Low Phosphorus conditions

Season: Kharif & Rabi

Grain Type: Long Slender



GRAIN AND COOKING QUALITY

Plant height (cm): 95 cm
Duration (days): 120-125 days
1000 grain weight (g): 24.8 g
L/B ratio: 3.11
Head rice recovery (%): 62.05%
Alkali spreading value: 4
Amylose content (%): 23.1%
Gel Consistency (mm): 22 mm

RECOMMENDED STATES

Karnataka, Odisha, Telangana



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DRR Dhan 78

IET 30240 | High Yielding Low Phosphorus Tolerant Variety



DRR Dhan 78
with enhanced efficiency in phosphorus uptake, when grown under low P soils. It is low soil phosphorus tolerant variety with medium slender grain of cross Swarna / MTU 1001.



LOW-PHOSPHORUS PERFORMANCE

- Ecology: Irrigated Low Phosphorus conditions
- Grain Yield: 5.85 t/ha
- DRR Dhan 78 is A high yielding variety with enhanced efficiency in phosphorus uptake, when grown under low P soils.

GROWTH & YIELD CHARACTERISTICS

- Plant height (cm): 98-105 cm
- Duration (days): 138-142 days (seed to seed)
- Head rice recovery (%): 67.55%

DISEASE & PEST RESISTANCE

- Disease and Pest Resistance: Moderately resistant to leaf blast, neck blast, sheath rot and BLB.
- Grain Type: Medium Slender
- Recommended States: Karnataka and Telangana.

Rice Variety:	DRR Dhan 78 (IET 30240)
Variety Type:	High Yielding Low Phosphorus Tolerant Variety
Parentage:	Swarna / MTU 1001
Notification No:	S.O. 4388 (E) | 08/10/2024
Ecology:	Irrigated Low Phosphorus conditions

GRAIN QUALITY & PHYSICAL ATTRIBUTES

1000 grain weight (g):	21 g
L/B ratio:	2.77
Head rice recovery (%):	67.55%
Alkali spreading value:	4.5
Amylose content (%):	23.74%
Gel content (mm):	26 mm

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DRR Dhan 87

IET 31110 | Low Soil Phosphorus Tolerant Rice Variety

Designer, High-Yielding, Climate-Resilient Variety with Superior Haplotype Combinations of the Target genes Developed through Sub-Species Hybridization



LOW SOIL PHOSPHORUS TOLERANCE

CLIMATE RESILIENCE

Engineered for productivity under low P soils and variable climates

Overview

DRR Dhan 87 is an NPT & NUE cultivar, derived in the background of Swama with introgression of NPT traits from Tropical japonica germplasm. It is a Stay-green type with broad flag leaf - delayed leaf senescence, prolonged photosynthetic activity and improved source-sink dinamics. It possesses favourable alleles for key stress-responsive traits: Anaerobic germination (AG1, AG3, Blast (Pi54), BPH (BPH32), and Bacterial blight resistance (x44, Posssess superior haplotype (Wx) for grain quality.

STAY-GREEN PERFORMANCE & SOURCE-SINK DYNAMICS

- Broad flag leaf with delayed leaf senescenc
- Prolonged photosynthetic activity
- Improved source-sink dynamics

SUPERIOR HAPLOTYPE COMBINATIONS OF TARGET GENES



GT MS: High HRR (71.8%); Intermediate AC: 22.99; soft GC: 49 mm

High photosynthetic efficiency

Tolerance to bacterial blight

Tolerance to sheath blight

Key Highlights

- Higher Grain Number 368–422
- Possesses three weeks dormancy – an essential trait to prevent pre-harvest sprouting
- Lodging resistant with strong culm and robust root system



AT-A-GLANCE

Ecology:	Intigated medium duration ecology with low soil P tolerance
Grain Type:	Medium Slender with straw colored grains
Duration:	135 days, earlier than Swarna by 10–15 days
Yield:	6.0–6.5 t/ha

QUALITY



- High Head Rice Recovery (71.8%)
- Intermediate amylase content (AC): 22.9%
- Soft gel consistency: 69 mm;
- ASV-4.0

SALIENT FEATURES

Moderately resistant to leaf blast, neck blast, BLB, Sheath blight and field tolerance to Plant hoppers.

PEDIGREE

Swarna*1/IRGC 4105

RECOMMENDED STATES

Odisha, Bihar, Jharkhand, Telangana, Andhra Pradesh, Karnataka

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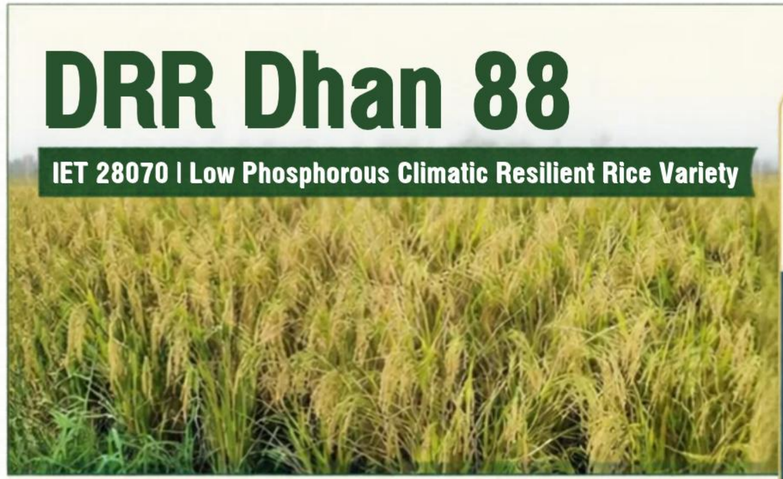
DRR Dhan 88

IET 28070 | Low Phosphorous Climatic Resilient Rice Variety



LOW PHOSPHOROUS TOLERANCE & NUTRIENT USE EFFICIENCY

- Thrives with 50% Phosphorous application in irrigated conditions
- Enhanced nutrient use efficiency for sustainable and profitable farming

DRR Dhan 88 is high yielding nutrient use efficient variety which is suitable for cultivation in 50% of Phosphorous application in transplanted irrigated conditions for both *Kharif and Rabi* seasons. It has acceptable grain and cooking quality.

KEY FEATURES

- Higher Grain Number 368-422
- Possesses three weeks dormancy– an essential trait to prevent pre-harvest sprouting
- Lodging resistant with strong culm and robust root system



AT-A-GLANCE

- **Ecology:** Irrigated Low Phosphorous
- **Grain Type:** Short Bold
- **Duration:** 125 days
- **Yield:** P50: 5.745 t/ha, P100: 5.988 t/ha

QUALITY

HRR: 58.6% | AC: 22%
GC: 22 mm | ASV: 4.0

GRAIN & COOKING QUALITY



SALIENT FEATURES

Moderate Resistant to Leaf Blast.

PEDIGREE

KMR3/IC 22015

RECOMMENDED STATES

Maharashtra (Zone VII); Telangana, Andhra Pradesh, Karnataka (Zone VIII).

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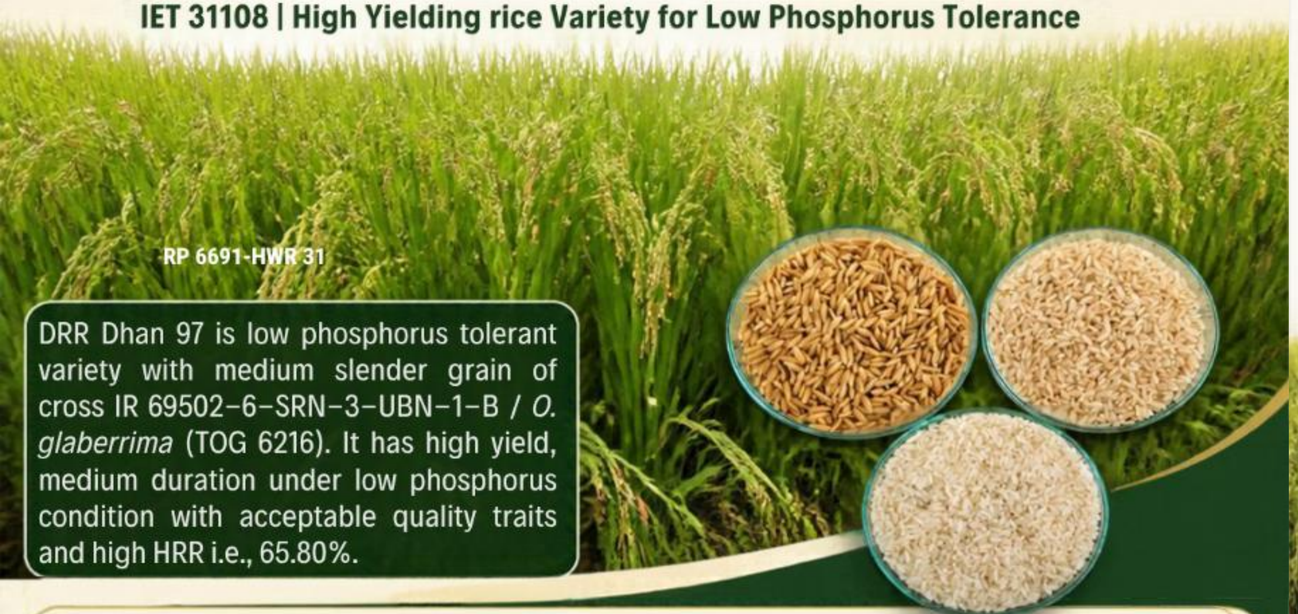
DRR Dhan 97

IET 31108 | High Yielding rice Variety for Low Phosphorus Tolerance



DRR Dhan 97 is low phosphorus tolerant variety with medium slender grain of cross IR 69502–6–SRN–3–UBN–1–B / *O. glaberrima* (TOG 6216). It has high yield, medium duration under low phosphorus condition with acceptable quality traits and high HRR i.e., 65.80%.

Yield: 4.5–5.0 t/ha | **Duration:** 115–120 days | **HRR:** 65.80%

Rice Variety:	DRR Dhan 97 (IET 31108)
Variety Type:	High Yielding rice Variety for Low Phosphorus Tolerance
Pedigree:	IR 69502–6–SRN–3–UBN–1–B / *O. glaberrima* (TOG 6216)
Ecology:	Low Phosphorus Tolerance
Grain Type:	Medium Slender
Duration:	115–120 days
Yield:	4.5–5.0 t/ha
HRR:	65.80%
L/B Ratio:	2.54
ASV:	4.0
AC:	22.38%
GC:	22 mm

LOW PHOSPHORUS ADAPTATION

Low Phosphorus Tolerance Medium duration under low **phosphorus condition** with acceptable quality traits and high HRR i.e., 65.80%.

SALIENT FEATURES

Moderate resistance to Leaf Blast, Brown Spot, Bacterial Leaf Blight, Sheath Blight, Neck Blast and Moderate Tolerance to Leaf Folder and Plant Hoppers.

Recommended States:
Karnataka, Telangana and Andhra Pradesh.

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DRR Dhan 98

IET 31102 | Low Soil Phosphorus Tolerant Variety

DRR Dhan 98 is a low soil phosphorous tolerant variety RP 6690-MASC-12-46 derived from an interspecific cross WB 9/BPT 5204. It has high yield, medium duration with long slender grain, acceptable cooking quality with high HRR i.e., 59.30.



Yield: 5.0 t/ha | **Duration:** 125-130 days | **HRR:** 59.30%

Rice Variety:	DRR Dhan 98 (IET 31102)
Variety Type:	Low Soil Phosphorus Tolerant Variety
Pedigree:	WB 9 / BPT 5204
Ecology:	Low Phosphorus Tolerance
Grain Type:	Long Slender
Duration:	125-130 days
Yield:	5.0 t/ha

Low Phosphorus Adaptation
Low Phosphorus Tolerance
DRR Dhan 98 is a **low soil phosphorous tolerant variety**

Salient features:
Moderate resistance to Leaf Blast, Brown Spot, Sheath Blight, Neck Blast and Moderate Tolerance to Leaf Folder and Plant Hoppers.

GRAIN & COOKING QUALITY

HRR:	L/B Ratio:	ASV:	AC:	GC:
59.30%	2.54	4.0	24.40%	22 mm

Recommended States:
Karnataka, Telangana and Andhra Pradesh.

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NITROGEN USE EFFICIENCY

RICE VARIETIES

- DRR Dhan 64 (IET – 28358)
- DRR Dhan 90 (IET – 29581)
- DRR Dhan 99 (IET – 29579)
- DRR Dhan 101 (IET – 32010)

DRR Dhan 64

IET 28358

Nitrogen Use Efficient Early Rice Variety

DRR Dhan 64 is early maturing, high yielding nitrogen use efficient variety suitable for cultivation in irrigated ecologies. It has good cooking quality.



- Nitrogen Use Efficiency — More grain per unit nitrogen
- EARLY MATURITY — 115-120 days Earlier harvest, higher returns
- High Yield — 5.0-5.5 t/ha Consistent high productivity
- Irrigated Ecology — Best suited for irrigated areas
- GOOD COOKING QUALITY — Soft, fluffy and tasty rice

VARIETY IDENTITY

Pedigree	MTU 1010/KMR3R
Ecology	Irrigated Early
Grain type	Long Slender
Duration	115-120 days
Yield	5.0-5.5 t/ha
Notification No	S.O. 4065 (E) | 31/08/2022
Plant height	108-110 cm
1000 grain weight	23.0 g



GRAIN AND COOKING QUALITY

L/B ratio:	3.07
Head rice recovery:	66.8%
Alkali spreading value:	4.0
Amylose content:	22.49%
Gel Consistency:	61.5 mm

SALIENT FEATURES

Moderate resistance to leaf blast, neck blast, gall midge, thrips, plant hoppers and whorl maggot.

RECOMMENDED STATES



Bihar and West Bengal.

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DRR Dhan 90

IET 29581 | Low Soil Nitrogen Tolerant Rice Variety



Suitable with 50% of recommended Nitrogen dosage

DRR Dhan 90 is a low soil Nitrogen tolerant rice variety identified in 2025. It is suitable for cultivation in 50% of recommended dosage of Nitrogen application with **4.6 t/ha** under 50% N; **2.5 to 3.0 t/ha** under 0% N.

NITROGEN RESPONSE



EXCELLENT YIELD EVEN AT 50% N = **4.6 t/ha under 50% N**

Low Nitrogen • High Efficiency • High Yield

AT-A-GLANCE

Ecology:	Irrigated Low Nitrogen Conditions
Grain Type:	Short Bold
Duration:	125–130 days
Yield:	4.6 t/ha under 50% N; 2.5–3.0 t/ha under 0% N

GRAIN & COOKING QUALITY



HRR: 64.70%
AC: 22.7%
GC: 22.3 mm
ASV: 4.0

SALIENT FEATURES

Moderate resistance to leaf blast, neck blast, sheath rot, plant hoppers, stem borer and whorl maggot.

PEDIGREE

BPT 5204 / Varadhan

RECOMMENDED STATES

Andhra Pradesh, Telangana and Karnataka (Zone VII).

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DRR Dhan 99

IET 29579 | A high yielding rice variety with moderate resistance to multiple stress and tolerant to Leaf Folder

DRR Dhan 99 is a low nitrogen rice variety derived from an interspecific cross Swarna * 2 / *Oryza nivara*. It has yield of 5.155 t/ha under 100% Nitrogen of recommended dose of fertilizers, 4.898 t/ha under 50% Nitrogen of recommended dose of fertilizers, medium slender grain, acceptable cooking quality.



KEY PERFORMANCE

Yield:
5.155 t/ha (100% N of RDF)
4.898 t/ha (50% N of RDF)

Duration:
118-120 days

HRR:
55.20%

LOW NITROGEN PERFORMANCE

Ecology:
Low Nitrogen

5.155 t/haunder 100% Nitrogen of recommended dose of fertilizers

4.898 t/haunder 50% Nitrogen of recommended dose of fertilizers

SALIENT FEATURES

Moderate resistance to Leaf Blast, Brown Spot, Sheath Blight, Neck Blast and Tolerance to Leaf Folder.



VARIETY TYPE
A high yielding rice variety with moderate resistance to multiple stress and tolerant to Leaf Folder

GRAIN TYPE:
Medium Slender

COOKING QUALITY:
Acceptable cooking quality

PEDIGREE:
Swarna * 2 / Oryza nivara

ECOLOGY:
Low Nitrogen

RECOMMENDED STATES:
Odisha, Maharashtra, Karnataka, Telangana and Andhra Pradesh.

GRAIN & COOKING QUALITY SPECIFICATIONS



HRR: 55.20%
L/B Ratio: 2.51
ASV: 4.0
AC: 20.62%
GC: 22 mm

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DRR Dhan 101

IET32010 | A high yielding rice variety with moderate resistance to multiple stress and tolerant to Leaf Folder and plant hoppers





DRR Dhan 101 is a low nitrogen rice variety derived from an interspecific cross Sampada / Jaya. It has yield of 4.855 t/ha (50% Nitrogen in Zone–VII), 4.456 t/ha (50% Nitrogen in Zone–III), short bold grain, acceptable cooking quality and High HRR i.e., 64.40%.

YIELD:	DURATION:	HRR:
4.855 t/ha (50% N in Z–VII) 4.456 t/ha (50% N in Z–III)	125–130 days	64.40%

LOW NITROGEN PERFORMANCE

Ecology: Low Nitrogen

4.855 t/ha (50% N in Z–VII)

4.456 t/ha (50% N in Z–III)

Rice Variety:	DRR Dhan 101 (IET 32010)
Variety Type:	A high yielding rice variety with moderate resistance to multiple stress and tolerant to Leaf Folder and plant hoppers
Pedigree:	Sampada / Jaya
Ecology:	Low Nitrogen
Grain Type:	Short Bold
Duration:	125–130 days
Yield:	4.855 t/ha (50% N in Z–VII) 4.456 t/ha (50% N in Z–III)

SALIENT FEATURES

Moderate resistance to Leaf Blast, Brown Spot, Sheath Blight, Neck Blast and Tolerance to Leaf Folder, Plant Hoppers.

RECOMMENDED STATES

Odisha, Bihar, Karnataka and Telangana.

GRAIN AND COOKING QUALITY

HRR:	L/B Ratio:	ASV:	AC:	GC:
64.40%	2.27	4.0	26.59%	54 mm

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EARLY IRRIGATED

RICE VARIETIES

- DRR Dhan 43 (IET – 22080)
- DRR Dhan 46 (IET – 23420)

DRR Dhan 43

IET 22080 | Early Duration Rice Variety



DRR Dhan 43, an early duration variety with long bold grains suitable for irrigated ecology. This variety is generated from F3 bulk material (IR03L03/IRRI148) shared by IRRI, Philippines

Grain Yield: 6.0 t/ha	Plant height (cm): 100-105 cm	Duration (days): 110-115 days (seed to seed)

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Rice Variety:	DRR Dhan 43 (IET 22080)
Variety Type:	Early Duration Rice Variety
Released for States:	Tamil Nadu, Puducherry, Kerala, and Karnataka
Grain Type:	Long Bold
Ecology:	Irrigated
Season:	Kharif

IDENTIFICATION

Parentage:	IR03L03/IRRI148
IET No:	22080
Year:	2015
Notification No:	S.O.112 (E) I 12/01/2015
Protection of Plant Varieties and Farmers' Rights Authority Number:	2019/209

Disease and Pest Resistance:
Moderately resistant to brown spot, sheath rot and brown plant hoppers

GRAIN QUALITY & PHYSICAL CHARACTERISTICS

1000 grain weight (g):	21.6 g
L/B ratio:	2.71
Head rice recovery (%):	56.25%
Alkali spreading value:	7
Amylose content (%):	24.45%
Gel consistency (mm):	69.0 mm

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DRR Dhan 46

IET 23420 | Early Duration Rice Variety

An early duration variety with long slender grains, It is developed from F3 breeding material derived from the cross IR72022/IR57514-PMI-5-B-1-2 shared by IRRI, Philippines. Suitable for early and late planting under irrigated/rainfed areas





Grain Yield: 5.3 t/ha	Plant height (cm): 100-110 cm	Duration (days): 110-115 days(seed to seed)

PLANTING ADAPTABILITY
Suitable for early and late planting under irrigated / rainfed areas

DISEASE AND PEST RESISTANCE
Moderately resistant to blast, brown spot, BLB and sheath rot

VARIETY HIGHLIGHTS
Variety Type: Early Duration Rice Variety
Ecology: Irrigated - Early
Season: Kharif and Rabi
Released for States: Bihar, Madhya Pradesh and Maharashtra

VARIETY IDENTIFICATION

Rice Variety:	DRR Dhan 46 (IET 23420)
Parentage:	IR72022/IR57514-PMI-5-B-1-2
IET No:	23420
Year:	2016
Notification No:	S.O. 2238 (E) I 29/06/2016
Protection of Plant Varieties and Farmers' Rights Authority Number:	2016/1256

AGRONOMIC CHARACTERISTICS

Grain Type:	Long Slender
Grain Yield:	5.3 t/ha
Ecology:	Irrigated - Early
Season:	Kharif and Rabi
Released for States:	Bihar, Madhya Pradesh and Maharashtra

GRAIN QUALITY

1000 grain weight (g):	L/B ratio:	Head rice recovery (%):	Alkali spreading value:	Amylose content (%):	Gel Consistency (mm):
23.5 g	3.27	62.95%	7	23.67%	61.0 mm

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IRRIGATED MEDIUM

RICE VARIETIES

- DRR Dhan 40 (IET – 21542)
- DRR Dhan 79 (IET – 29859)
- DRR Dhan 82 (IET – 30756)
- DRR Dhan 84 (IET – 32051)
- DRR Dhan 85 (IET – 32054)
- DRR Dhan 95 (IET – 32047)

DRR Dhan 40

IET 21542 | High-yielding, medium-duration rice variety





PADDY (HUSK)



MILLED RICE

DRR Dhan 40, A semi-dwarf, high yielding, medium-duration variety bred from wild species, O. nivara. It is developed from an advanced back cross population of Swarna/O. nivara followed by pedigree method.

Grain yield: 5.5 t/ha

Plant height (cm): 99 cm

Duration (days): 138 days (seed to seed)

Released for States: Maharashtra,Tamil Nadu and West Bengal.

Grain type: Short bold grains

Disease and Pest Resistance: Moderately resistant to leaf blast, neck blast, rice tungro disease, brown spot and sheath rot.

Parentage: Swarna /O. nivara (IRGC 81848)

IET No: 21542

Year: 2014

Notification No: S.O. 244 (E) 24/01/2014

PPV&FRA No: 2019/216

Ecology: Irrigated

Season: Kharif

1000 grain weight (g):	L/B ratio:	Head rice recovery (%):	Alkali spreading value:	Amylose content (%):
18.0g	2.26	55.8%	4.0	25.68%

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DRR Dhan 79

IET 29859 | Multiple Stress Tolerant High Yielding Irrigated Medium Duration Variety

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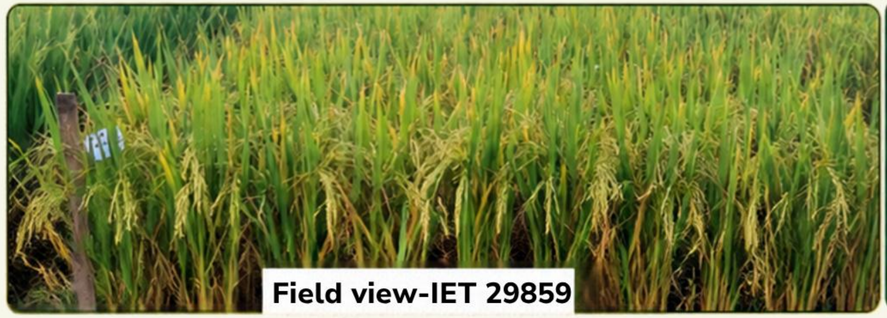
DRR Dhan 79 is a multi-parent derived marker assisted forward breeding line in Krishna Hamsa background with genes introgressed: Leaf blast resistance (Pi 54) and BPH resistance (Bph 20 and Bph 21).



Field view-IET 29859



MULTIPLE STRESS TOLERANCE

- Leaf blast resistance (Pi 54)
- BPH resistance (Bph 20 and Bph 21)
- Resistant to leaf blast (Pi54) and neck blast

FIELD-ECOLOGY & PERFORMANCE

- Ecology: Both Rainfed and Irrigated; Medium duration
- Grain Yield: 5.85 t/ha
- Plant height (cm): 100 cm
- Duration (days): 125-130 days (seed to seed)

Disease and Pest Resistance

Resistant to leaf blast (Pi54) and neck blast; moderately resistant to brown spot, BPH (Bph20 and Bph21), leaf folder and drought tolerance.



Rice Variety:	DRR Dhan 79 (IET 29859)
Variety Type:	Multiple Stress Tolerant High Yielding Irrigated Medium Duration Variety
Grain Type:	Long Slender
Grain Yield:	5.85 t/ha
Disease and Pest Resistance:	Resistant to leaf blast (Pi54) and neck blast; moderately resistant to brown spot, BPH (Bph20 and Bph21), leaf folder and drought tolerance.
Parentage :	Krishna Hamsa/ IRBB60//Krishna Hamsa/Tetep///Krishna Hamsa/IR 71033-121-15-B-DSB2
Notification No:	S.O. 4388 (E) | 08/10/2024

Grain Type : Long Slender

Recommended States:

Odisha, Bihar, Chhattisgarh, Madhya Pradesh, Maharashtra, Karnataka and Tamil Nadu

GRAIN QUALITY & PHYSICAL PARAMETERS

1000 grain weight (g)	L/B ratio	Head rice recovery (%)	Alkali spreading value	Amylose content (%)	Gel content (mm)
24.9 g	3.21	55.4%	4.0	24.58%	28 mm

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DRR Dhan 82

IET 30756 | High Yielding Medium Slender Rice Variety

DRR Dhan 82 (Swarna / MTU 1010) is inbuild tolerant with many biotic and abiotic stresses rice variety identified in 2025. It is suitable cultivation in Eastern India. It has acceptable grain and cooking quality.



AT-A-GLANCE

Ecology:	Irrigated Medium conditions
Grain Type:	Medium Slender
Duration:	130–135 days
Yield:	6.0–6.5 t/ha



GRAIN AND COOKING QUALITY

HRR:	AC:	GC:	ASV:
59.95%	22.61%	56 mm	4.0

SALIENT FEATURES

Moderately resistant to BLB, NB, RTD, WBPH, SB and GM.

PEDIGREE

Swarna / MTU 1010

RECOMMENDED STATES

Odisha, West Bengal, Jharkhand, Bihar and Uttar Pradesh (Zone III).

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DRR Dhan 84 (Mahajaya)

IET 32051 | High Yielding Irrigated Medium (NIL) Variety



- BACTERIAL BLIGHT RESISTANCE
- BLAST RESISTANCE
- PLANT-HOPPER RESISTANCE
- HIGH YIELD

DESCRIPTION

DRR Dhan 84, derived from the cross, is a MAS-derived, bacterial blight, blast-resistant, and high-yielding rice variety having the major bacterial blight resistance gene, Xa21, and the genes for blast and yield are Pi54 and Gn1a.
DRR Dhan 84, like its recurrent parent, Jaya, possesses short bold grains, with more than 350–450 grains per panicle, good culm strength, and more panicle branches, along with excellent cooking and eating qualities and higher yield.

TARGET GENES

- Bacterial leaf blight: *Xa21*
- Blast: *Pi54*
- Yield: *Gn1a*

AT-A-GLANCE

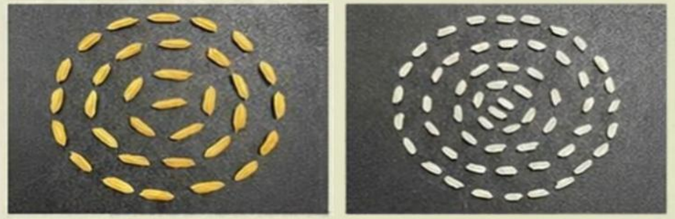
Ecology:	Irrigated Medium
Grain Type:	Short Bold
Duration:	125–130 days
Yield:	5.46 t/ha

QUALITY

HRR: 62.2% | AC: 26.2% | GC: 22 MM | ASV: 7.0

SHORT BOLD GRAINS & COOKING QUALITY

Short Bold Grain (DRR Dhan 84) | Short Bold Grain (Jaya)



Excellent cooking and eating qualities

KEY TRAITS

- More than 350–450 grains per panicle
- Good culm strength
- More panicle branches
- Excellent cooking and eating qualities

PEDIGREE

(Jaya*2/Isogenic line MTU 1010)

RESISTANCE

Resistant to Leaf Blast, Bacterial leaf blight and Plant Hoppers.

RECOMMENDED STATES

Odisha, Bihar, Jharkhand (Zone III), Maharashtra (Zone V), Tamil Nadu, Telangana, Andhra Pradesh (Zone VII)

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DRR Dhan 85

IET 32054 | High Yielding Irrigated Medium (NIL) Variety



+9.5%

mean overall zones (III, V, VII) yield superiority (weighted average)

over Improved Samba Mahsuri (ISM)

DRR Dhan 85 is a high-yielding, bacterial blight and gall midge-resistant, medium slender-fine grain type rice variety. Thus, the variety has shown a mean overall zones (III, V, VII) yield superiority of +9.5% (weighted average) over its recurrent parent, Improved Samba Mahsuri (ISM). The variety inherits the strong agronomic foundation of ISM, characterized by a semi-dwarf, non-lodging plant type and highly vigorous, erect leaves that contribute to excellent biomass production.

SALIENT FEATURES

Resistant to Bacterial leaf blight and Gall Midge.

ISM VS IET 32054



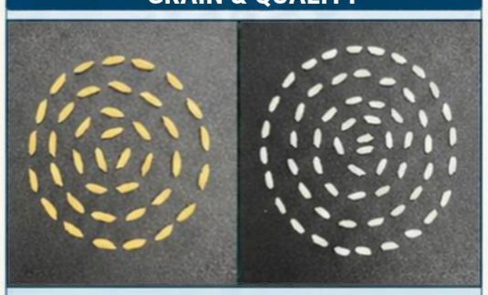
PLANT ARCHITECTURE

Semi-dwarf, non-lodging plant type; highly vigorous, erect leaves; excellent biomass production.

AT-A-GLANCE

- Ecology: Irrigated Transplanted
- Grain Type: Medium Slender
- Duration: 130–135 days
- Yield: 5.394 t/ha

GRAIN & QUALITY



QUALITY

HRR: 55% | AC: 26.2%
GC: 22 mm | ASV: 5.0

PEDIGREE

Improved Samba Mahsuri *2 / Abhaya / Aganni

RECOMMENDED STATES

Odisha, Bihar, Jharkhand (Zone III); Khattisgarh (Zone V); Gujarat, Maharashtra (Zone VI); Tamil Nadu, Telangana, Andhra Pradesh, Karnataka (Zone VII)

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DRR Dhan 95

IET 32047 | A High Yielding Rice Variety with medium slender grain rice with good cooking quality Rice Variety



DRR Dhan 95 is a High yielding irrigated rice variety in Near Isogenic line in the background of WGL-14. It has Enhanced resistance for BLB (Xa4+xa5+xa8+Xa21) & Plant Hoppers (Bph3+Bph17+Bph32) over recurrent parent (RP). It is a similar plant type to RP in terms of PH, GT and is one week earlier than RP (% Similarity with RP-91.81%).

Yield: 6.0 t/ha

Duration: 125 days

Resistant: Xa4+Xa5+Xa8+Xa21 Bph3+Bph17+Bph32

Salient Features: Enhanced resistance for BLB (Xa4+xa5+xa8+Xa21) & Plant Hoppers (Bph3+Bph17+Bph32)

BLB RESISTANT



PLANT HOPPER TOLERANCE



PEDIGREE:

WGL 14 / IR 96321-1447-561-B-1
WGL 14 / IR 81896-96-B-B-195
WGL 14 / IR 74371-46-1-1-13
WGL-14 /RP Patho-2
WGL 14 / RP Patho-3

GRAIN TYPE:	Medium Slender
IET NO:	32047
ECOLOGY:	Irrigated Isogenic

GRAIN QUALITY & TECHNICAL SPECIFICATION

HRR(%)	L/B ratio	ASV	GI	AC (%)	GC (mm)
59.1%	2.71	4.0	54.06	26.0%	40 mm

PEDIGREE

WGL 14 / IR 96321-1447-561-B-1 ///// WGL 14 / IR 81896-96-B-B-195 // WGL 14 / IR 74371-46-1-1-13 ///// WGL-14 /RP Patho-2// WGL 14 / RP Patho-3

RECOMMENDED STATES

Telangana, Andhra Pradesh, Karnataka, Tamil Nadu, Kerala and Puducherry

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MARKER ASSISTED SELECTION

RICE VARIETIES

- DRR Dhan 34 (IET – 19046)
- DRR Dhan 51 (IET – 25484)
- DRR Dhan 53 (IET – 27294)
- DRR Dhan 59 (IET – 27280)
- DRR Dhan 62 (IET – 28804)
- DRR Dhan 83 (IET – 32045)
- DRR Dhan 89 (IET – 32064)
- DRR Dhan 91 (IET – 32061)

DRR Dhan 34

IET 19046 | IMPROVED SAMBA MAHSURI

Low GI, BLB Resistant, Fine Grain Rice Variety



LOW GLYCAEMIC INDEX

HIGH RESISTANCE TO BACTERIAL LEAF BLIGHT

Improved Samba Mahsuri, a MAS variety developed by introgression of 3 major bacterial leaf blight resistance genes Xa21, xa13 and xa5 and exhibited high level of resistance to BLB and is widely cultivated across the country for its excellent grain quality

3 major bacterial leaf blight resistance genes: **Xa21, xa13 and xa5**

AT-A-GLANCE

- Ecology: Irrigated & Shallow Lowlands
- Grain Type: Medium Slender
- Duration: 135 days
- Yield: 5.0 t/ha

FINE GRAIN QUALITY



HRR: 65% | ASV: 4.5 | AC: 24.8%

PEDIGREE

Samba Mahsuri*7/SS1113

RECOMMENDED STATES

Andhra Pradesh, Chhattisgarh, Orissa, Jharkhand, Bihar, Gujarat and Maharashtra

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DRR Dhan 51

IET-25484



Variety type: A high yielding short bold grain variety resistant to blast

Description: DRR Dhan 51 is a blast resistant, high yielding, early maturity, short bold grain variety developed through the deployment of Marker assisted selection (MAS).

Key highlights: It possesses excellent grain and cooking quality features on par with Swarna in terms of Hulling percentage (79.5), Head rice recovery (60.1), Kerel length (5.1), Kerel width (2.16), L/B ratio (2.44), Alkali spreading value (4.0) and Amylose content (26.7).

AGRONOMIC AND IDENTITY

Pedigree:	Swarna*2/C101A51
Ecology:	Irrigated
Grain type:	Short Bold
Duration:	135 - 140 Days
Yield:	5.9 t/ha
Plant height:	111-117 cm
1000 grain weight:	21.5 g
L/B ratio:	2.44
Head rice recovery:	60.1%
ASV:	4
Amylose content:	26.7%

GRAIN AND COOKING QUALITY



HUSKED GRAIN



MILLED GRAIN

Hulling percentage	79.5
Head rice recovery	60.1
Kernel length	5.1
Kernel breadth	2.16
L/B ratio	2.44
Alkali spreading value	4.0
Amylose content	26.7

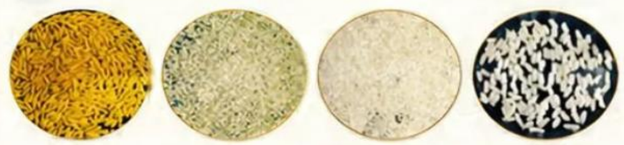
SALIENT FEATURES

This variety is of early duration with high yield under irrigated conditions and good grain quality. It can be grown even with low N conditions.

RECOMMENDED STATES

Uttar Pradesh, Gujarat, Telangana and Chhattisgarh.

RICE PRODUCTS



Notification No:
S.O. 1379 (E) | 27/03/2018

Protection of Plant Varieties and Farmers' Rights Authority Number: 2022/0015

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DRR Dhan 53

IET 27294

Low GI, BLB resistant, Fine-grain rice variety



DRR Dhan 53 was developed by introgressing 4 major BB resistance genes, **Xa21+xa13+xa5+Xa38** through marker assisted back cross breeding and is highly resistant to bacterial blight.

It is **Semi-dwarf and non-lodging** with **complete panicle exertion** and has significant yield advantage **(15-30%)** over Samba Mahsuri under BLB incidence.

HIGHLY RESISTANT TO BACTERIAL BLIGHT | **LOW GI BETTER HEALTH CHOICE**

15-30% YIELD ADVANTAGE OVER SAMBA MAHSURI UNDER BLB INCIDENCE

VARIETY AT A GLANCE

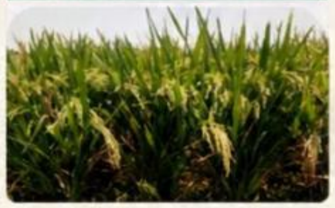
Pedigree	Improved Samba Mahsuri*3/PAU 3554
Ecology	Irrigated & Rainfed Lowland
Grain type	Medium slender
Duration	130-135 Days
Yield	5.5 to 6.0 t/ha
Plant height	85 cm
1000 grain weight	19.9 g
L/B ratio	2.96

HIGHLY RESISTANT TO BACTERIAL BLIGHT



Introgressed with 4 major BB resistance genes **Xa21+xa13+xa5+Xa38** through marker assisted back cross breeding providing highly resistant to bacterial blight.

COMPLETE PANICLE EXERTION



FINE GRAINED



GRAIN AND COOKING QUALITY

Head rice recovery: 59.7%	59.7%
Alkali spreading value: 5	5
Amylose content: 22.2%	22.2%
Gel consistency: 22 mm	22 mm



SALIENT FEATURES

- Highly Resistant to bacterial blight.

RECOMMENDED STATES

Andhra Pradesh, Telangana, Chhattisgarh, Bihar, Karnataka, Tamil Nadu, Jharkhand, Odisha, Gujarat and Maharashtra.

Notification No:
S.O. 500 (E) | 29/01/2021

Protection of Plant Varieties and Farmers' Rights Authority Number:
2022/0018

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DRR Dhan 59

IET-27280

A high yielding fine grain variety **resistant to bacterial blight**

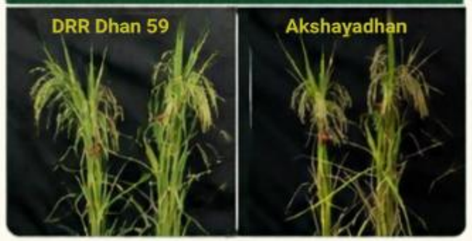


RESISTANT TO BACTERIAL BLIGHT | **HIGH YIELD 5.0 - 5.5 T/HA** | **LONGBOLD PREMIUM GRAIN**

DESCRIPTION

DRR Dhan 59 an improved, bacterial blight resistant, high yielding, longbold grain type variety possessing premium grain and cooking quality, developed through the deployment of **Marker assisted** selection. It can replace long **bold** grain varieties like Akshayadhan, Sadabahar and other long bold varieties in those gazetted areas. The new variety can also be cultivated across the country in the bacterial blight affected areas.

COMPARISON: DRR DHAN 59 VS AKSHAYADHAN



HUSKED GRAIN



MILLED RICE



VARIETY AT A GLANCE

- **Pedigree** Akshayadhan*2/FBR 1-15
- **Ecology** Irrigated
- **Grain type** Long Bold
- **Duration** 130-135 Days
- **Yield** 5.0 - 5.5 t/ha
- **Notification No** S.O. 8 (E).| 24/12/2021
- **Protection of Plant Varieties and Farmers' Rights Authority No:** 2022/0017
- **Plant height** 113 cm
- **1000 grain weight** 24.0 g

GRAIN AND COOKING QUALITY

Hulling:	80.8%
Head rice recovery:	56.2%
Kernel length:	6.45 mm
Kernel width:	2.30 mm
L/B ratio:	2.8
Alkai spreading value:	4.0
Amylose content:	26.57
Gel consistency:	24 mm



SALIENT FEATURES

Similar to rice varieties of medium and late duration, which are cultivated in irrigated areas.

REPLACEMENT / USE

It can replace long bold grain varieties like Akshayadhan, Sadabahar and other long bold varieties in those gazetted areas. The new variety can also be cultivated across the country in the bacterial blight affected areas.

RECOMMENDED STATES



Telangana, Tamil Nadu, Jharkhand, Andhra Pradesh.

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DRR DHAN 62

IET28804 BLB & Blast Resistant Fine Grain Rice Variety



VARIETY IDENTITY

DRR Dhan 62 is a MAS derived, blast and bacterial blight resistant high-yielding, fine-grain rice variety having 3 major bacterial blight resistance genes, Xa21+xa13+xa5 and 2 major blast resistance genes Pi-2+Pi54. It also showed good level of resistance to neck blast, brown spot and sheath rot.

BLB RESISTANCE

3 major bacterial blight resistance genes

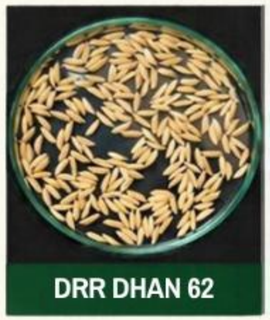
Xa21+xa13+xa5

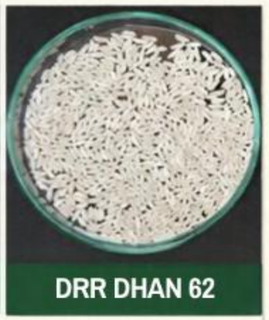
2 major blast resistance genes

Pi-2+Pi54

Xa21+xa13+xa5

Good level of resistance to neck blast, brown spot and sheath rot.


DRR DHAN 62


DRR DHAN 62

- Pedigree: Improved Samba Mahsuri'2//ISM/C101A51//ISM/Tetep
- Ecology: Irrigated
- Grain type: Medium Slender
- Duration: 135-140 days
- Yield: 5.5-6.0 t/ha under 40 kg P_2O_5
- Plant height: 86-90 cm
- 1000 grain weight: 20.0 g
- L/B ratio: 2.88
- Notification No: S.O. 8 (E) | 24/12/2021
- PPV and FRA Number: 2022/0020

GRAIN AND COOKING QUALITY

HRR:	L/B ratio:	ASV:	AC:	GC:
61.2%	2.88	4.0	26.51%	45 mm

RECOMMENDED STATES



Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, Odisha, Chhattisgarh, Jharkhand, Bihar, Gujarat and Maharashtra.

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DRR Dhan 83

IET 32045 | MAS derived variety in the background of Krishna Hamsa with Enhanced Blast and Bacterial Leaf blight Resistance and Drought tolerance



- ENHANCED BLAST RESISTANCE
- BACTERIAL LEAF BLIGHT RESISTANCE
- DROUGHT TOLERANCE

DESCRIPTION

DRR Dhan 83 is developed through multi-parent inter-crossing with introgression of xa5+Xa21 for bacterial blight and Pi9 for blast resistance and qDTY12.1+qDTY3.1 for reproductive stage drought tolerance. It also possesses favourable alleles of Pi1+Pi20+Pi38 for blast resistance; AG3 for anaerobic germination and qDTY2.2 for drought tolerance.

TARGET TRAITS

- Bacterial blight: *xa5+Xa21*
- Blast: *Pi9, Pi1+Pi20+Pi38*
- Reproductive-stage drought tolerance: *qDTY12.1+qDTY3.1*
- Anaerobic germination: *AG3*
- Drought tolerance: *qDTY2.2*

AT-A-GLANCE

Ecology:	Grain Type:	Duration:	Yield:
Irrigated Early Transplanted	Long Slender	110–115 days	4.679 t/ha

QUALITY

HRR:	AC:	GC:	ASV:
56.8%	28.74%	45 mm	5.0

RESISTANCE AND TOLERANCE

Resistant to Blast, Neck blast and Bacterial leaf blight; Tolerance to drought.

GRAIN QUALITY: THREE STAGE



BREEDING / TRAIT VISUAL



PEDIGREE

Improved Samba Mahsuri*2 / Abhaya / Aganni

RECOMMENDED STATES

Tripura and Assam, Tamil Nadu, Kerala, Karnataka, Puducherry, Telangana and Andhra Pradesh.

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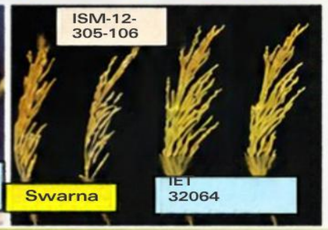
DRR Dhan 89 (Super Swarna)

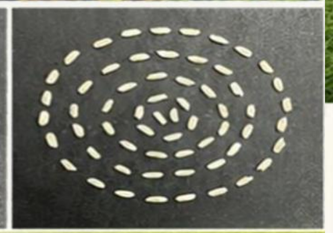
IET 32064 | High Yielding Irrigated Late (NIL) Variety











RESISTANT TO BACTERIAL BLIGHT AND LEAF BLAST

HIGH YIELD POTENTIAL WITH EXCELLENT GRAIN QUALITY

OVERVIEW

DRR Dhan 89, derived from the cross, is a high-yielding, bacterial blight, blast-resistant, medium slender-grain type rice variety that possesses the major bacterial blight resistance gene, Xa21, and the genes associated with blast and yield, including Pi54 and OsSPL14. It largely mirrors the superior agronomic base of Swarna, featuring a semi-dwarf, non-lodging plant type with strong culms and dark-green, highly vigorous, erect leaves that contribute to excellent biomass. Its yield potential is underpinned by long, completely exerted deflexed panicles that bear a high number of grains (350-400) with good cooking and eating qualities. It is suitable for cultivation under Irrigated Transplanted conditions in the Eastern states.

TARGET GENES

- **Bacterial blight resistance: Xa21**
- **Blast resistance: Pi54**
- **Yield-associated gene: OsSPL14**

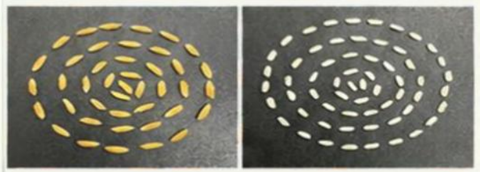
PLANT AND PANICLE TRAITS

Semi-dwarf, non-lodging plant type; strong culms; dark-green, highly vigorous, erect leaves; excellent biomass; long, completely exerted deflexed panicles; 350-400 grains per panicle.

AT-A-GLANCE

- Ecology:Irrigated Late Duration
- Grain Type:Medium Slender
- Duration:135-140 days
- Yield:5.354 t/ha

GRAIN AND COOKING QUALITY



QUALITY: HRR-60.3%; AC-24.58%; GC-22 MM; ASV-7.0

SALIENT FEATURES

Resistant to Leaf Blast, Bacterial Leaf Blight and Moderately Resistant to Leaf Folder, Stem Borer.

PEDIGREE

Swarna *2 / Improved Samba Mahsuri

RECOMMENDED STATES

Odisha, West Bengal, Jharkhand, Bihar, Uttar Pradesh (Zone III)

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DRR Dhan 91

IET 32061 | High Yielding Irrigated Late (NIL) Variety



SUBMERGENCE TOLERANCE

Survives and recovers in waterlogged conditions, ensuring reliable yield under submerged stress.

DESCRIPTION

DRR Dhan 91, derived from the cross, is a high-yielding, bacterial blight, blast-resistant, and submergence-tolerant medium slender-grain type rice variety having the major bacterial blight resistance genes, **Xa21+xa13+xa5**, and the genes associated with blast and submergence are **Pi54 and sub1**. It has acceptable grain and cooking quality. This variety is a replacement for medium slender-grained varieties like Improved Samba Mahsuri in Bacterial blight, blast endemic areas, and submerged stress condition regions.

RESISTANT. TOLERANT. RELIABLE.

SALIENT FEATURES:
Resistant to Bacterial leaf blight and Blast; Tolerance to Submergence, Plant Hoppers.

TARGET GENES:
Bacterial blight resistance: **Xa21+xa13+xa5** | Blast: **Pi54** | Submergence tolerance: **sub1**

REPLACEMENT VARIETY

A superior replacement for medium slender-grained varieties like Improved Samba Mahsuri in Bacterial blight, blast endemic areas, and submerged stress condition regions.

AT-A-GLANCE

- **Ecology:** Irrigated Medium
- **Grain Type:** Medium Slender
- **Duration:** 135-140 days
- **Yield:** 4.982 t/ha

GRAIN TYPE: MEDIUM SLENDER



QUALITY: GRAIN AND COOKING

HRR: 54.5% | **AC:** 23.81% | **GC:** 57 MM | **ASV:** 5.0

PEDIGREE

Improved Samba Mahsuri*2//Tetep/Swarna sub-1

RECOMMENDED STATES

Odisha, Jharkhand, Bihar (Zone III); Gujarat, Maharashtra (Zone VI); Tamil Nadu, Andhra Pradesh, Telangana, Karnataka (Zone VII)

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RICE – HYBRIDS

- DRRH 4 (IET – 27937)
- DRRH 5 (IET – 27847)
- DRRH 6 (IET – 28123)
- DRRH 7 (IET – 30165)

DRRH-4

First dry direct seeded aerobic rice hybrid notified in 2022

Can be cultivated across the country under irrigated conditions



Excellent grain and cooking quality

VARIETY IDENTITY

Identifier:	IIRRH 124
IET identifier:	IET 27937
Variety type:	Aerobic Rice Hybrid with Multiple Resistance
Description:	DRRH-4 is the **First dry direct seeded aerobic rice hybrid notified in 2022** which can also be cultivated across the country under **irrigated conditions**. It possesses **excellent grain and cooking quality.**
Pedigree:	APMS-6A AR 9-18
Ecology:	Dry direct seeded aerobic
Grain type:	Medium Slender
Duration:	120 days
Yield:	5.7 to 6.3 t/ha
Notification No:	S.O. 4065 (E) | 31/08/2022

MULTIPLE RESISTANCE

Built to protect. Built to perform.

GRAIN COMPARISON



Paddy (husked) ☒ Polished rice ☒ Brown rice (husked)

GRAIN & COOKING QUALITY

Plant Height: 708-110 cm
1000 grain weight: 23.0 g
L/B ratio: 2.7
Hulling: 79.2%
HRR: 62.8%
ASV: 4.0
Amylose Content: 24.6%
GC: 23 mm



Husked Grain



Polished Rice

RESISTANCE PROFILE

Resistance to gall midge & rice thrips; and moderate resistance to Leaf blast, Neck blast & plant hoppers.

RECOMMENDED STATES

Punjab, Odisha, Chhattisgarh, Tripura and Gujarat.

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DRRH – 5 IET 27847

SALINITY TOLERANT RICE HYBRID



COASTAL SALINITY TOLERANCE
Suited for salinity prone areas and coastal saline areas

HIGH YIELD
3.5 T/HA

DURATION
113 - 120 DAYS

GRAIN TYPE
Medium Slender

TOLERANT TO
major diseases and insect pests

DRRH-5 is a high yielding rice hybrid with **better grain quality and tolerance to major diseases and insect pests** along with coastal salinity tolerance. It is well suitable salinity **prone areas** to attain high yield mainly under **coastal saline areas**.

GRAIN IN HAND



GRAIN COMPARISON



PEDIGREE	APMS-6A / NH 12-124
ECOLOGY	Coastal saline
GRain Type	Medium Slender
DURATION	113 - 120 days
YIELD	3.5 t/ha
NOTIFICATION NO	S.O. 1560 (E) | 26/03/2024

MILLING AND COOKING QUALITY

Plant Height:	108-110	L/B ratio:	2.76
1000 Grain Weight:	23 g	Head Rice Recovery:	62%
Hulling:	79.2%	Alkai Spreading Value:	5.0
Milling:	69.87%	Amylose Content:	26.1%
KL:	5.85 mm	Gel Consistency:	49.67 mm
KB:	2.11 mm		

RECOMMENDED STATES:
West Bengal, Gujarat, Goa and Andhra Pradesh.

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DRRH – 6

IET 28123 | High Yielding Rice Hybrid



PERFORMANCE IN IRRIGATED EARLY ECOLOGY

Ecology:	Yield:	Plant Height:	Duration:
Irrigated	6.0-6.5 t/ha	110-112 cm	115 - 120 days

HYBRID DESCRIPTION

DRRH-6 is a rice hybrid suitable for irrigated early ecology with high yield.

It has medium slender grain with acceptable quality traits along with high HRR

Rice Variety:	DRRH - 6 (IET 28123)
Variety Type:	High Yielding Rice Hybrid
Pedigree:	IR68897A/RP6380-46
Ecology:	Irrigated
Grain Type:	Medium Slender
Duration:	115 - 120 days
Yield:	6.0-6.5 t/ha
Notification No	S.O. 4388 (E) | 08/10/2024

DISEASE AND PEST RESISTANCE

Moderately resistant to neck blast, leaf blast, bacterial leaf blight, sheath blight, false smut, brown spot and RTD

Grain Type:
Medium Slender

Recommended States:
Odisha, Bihar, Uttar Pradesh

GRAIN QUALITY PARAMETERS



1000 Grain Weight:	23.2 g
L/B ratio:	3.02
Head Rice Recovery:	58.87%
Alkali Spreading Value:	4.0
Amylose Content:	26.31%
Gel Consistency:	41.33 mm

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DRRH-7

IET 30165 | Alkaline & Inland Saline Tolerant Rice Hybrid



ALKALINE TOLERANT

Thrives in alkaline soils for stable yields.

INLAND SALINE TOLERANT

Performs well in inland saline environments.

DESCRIPTION

DRRH-7 is high yielding with alkaline tolerance and medium duration hybrid. It is suitable for cultivation in Eastern, Central and Southern states. It has better grain and cooking quality.

PEDIGREE

IR79156A / PSV 729R

AT-A-GLANCE

- Ecology: Alkaline & inland saline
- Grain Type: Long Slender
- Duration: 115–123 days
- Yield: 3.535 t/ha (Alkalinity), 3.478 t/ha (Inland saline)

YIELD PERFORMANCE

ALKALINITY	INLAND SALINE
3.535 t/ha	3.478 t/ha

GRAIN & COOKING QUALITY



- QUALITY:
- HRR: 61.97%
- AC: 24.41%
- GC: 46 mm
- ASV: 4.17

SALIENT FEATURES

Moderate Resistant to Leaf Blast, Neck Blast, Brown Spot, Grain Discoloration, Plant Hoppers.

CMM



INDIE STATESSS

- Haryana
- Uttar Pradesh (Zone II)
- Uttar Pradesh (Zone III)
- Tamil Nadu (Zone VII)

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IN OUR PART OF THE COUNTRY RICE IS

Cooked and used as grain



Used for the child to write his name for the fist time with the help of an elder



Grounded to paste & used as makkalu by dancers



Powdered & mixed with water to make rangoli



The first food fed to a baby in a ritual



Indian Council of Agriculture Research

Indian Insititute of Rice Research

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