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
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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

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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

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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

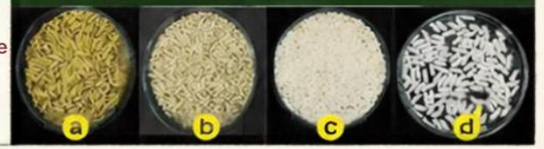
DRR Dhan 52 (IET-23354) is a drought and heat tolerant variety with lodging and blast resistance suitable for direct seeding. It has reproductive stage heat tolerance with high yield under elevated temperature up to 5-8°C. It recorded significant increase in chlorophyll and carotenoid content during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