#### GOVERNMENT OF INDIA MINISTRY OF AGRICULTURE AND FARMERS WELFARE DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION

#### LOK SABHA UNSTARRED QUESTION NO. 2341 TO BE ANSWERED ON 6<sup>TH</sup> AUGUST, 2024

## DROUGHT TOLERANT RICE VARIETIES

#### 2341. DR. BYREDDY SHABARI:

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि और

किसान कल्याण मंत्री be pleased to state:

(a) whether drought tolerant water-less rice varieties are being developed in the country, if so, the details thereof; and

(b) the complete details of new varieties of rice made available to the farmers of Andhra Pradesh including the farmers at Nandyal district?

### ANSWER

# THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE कृषि और किसान कल्याण राज्य मंत्री (SHRI BHAGIRATH CHOUDHARY)

(a) Yes. The Indian Council of Agricultural Research (ICAR) is actively engaged in research and development for high yielding climate resilient varieties/hybrids of various crops including rice which are tolerant to various biotic and abiotic stresses with enhanced quality.

During the last 10 years (2014-24), a total of 57 drought/ low moisture stress tolerant rice varieties have been developed which are suitable for cultivation under low rainfall conditions.

(b) During last 5 years (2020-24), a total of 46 new varieties of rice have been released & made available to the farmers of Andhra Pradesh including the farmers of Nandyal District. The number of new varieties of rice released and made available to the farmers of AP in last five years are as below (details in Annexure).

S.No.	Year	No. of Varieties
1	2020	13
2	2021	9
3	2022	9
4	2023	3
5	2024	12

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# [Part (b) of Lok Sabha USQ No. 2341 dated 6<sup>TH</sup> AUGUST, 2024]

Details of Rice varieties developed during 2020-2024 for Andhra Pradesh including the farmers at Nandyal district.

S. No.	Variety	Year	Salient features
	Rice		
1.	Teja (BPT 2595) (IET 25486)	2020	Suitable for irrigated late condition, average yield: 62.93 q/ha, maturity: 150 days, moderate resistant to blast and BPH
	,		Gazette Notification No. SO 3482 (E) Dated 07.10.2020
2.	Nellore Dhanyarasi (NLR3354) (IET 26226)	2020	Suitable for irrigated medium duration condition, average yield: 70.42 q/ha, maturity: 125–130 days, tolerant to leaf blast and neck blast. Gazette Notification No. SO 3482 (E) Dated 07.10.2020
3.	Maruteru Sujatha (MTU 1210) (IET	2020	Suitable for irrigated ecology, average yield: 71.67 q/ha, maturity: 135 days, resistant to blast and BPH.
	25305)		Gazette Notification No. SO 3482 (E) Dated 07.10.2020
4.	Maruteru Mahsuri MTU	2020	Suitable for irrigated late condition, average yield: 64.32 q/ha, maturity: 150–155 days, resistant to blast and BPH
	1262 (IET 27151)		Gazette Notification No. SO 3482 (E) Dated 07.10.2020
5.	Maruteru Samba MTU 1224 (IET 26225)	2020	Suitable for irrigated medium duration condition, average yield: 65.59 q/ha, maturity: 135 days, resistant to blast and BPH.
6.	Sasya (BPT- 2411) (IET 23081)	2020	Gazette Notification No. SO 3482 (E) Dated 07.10.2020 Suitable for irrigated late duration condition, average yield: 67.38 q/ha, maturity: 140 days, moderately resistant to blast, brown spot, sheath rot and BLB.
7.	Bhavathi (BPT-2782) (IET 27124)	2020	Gazette Notification No. SO 3482 (E) Dated 07.10.2020 Suitable for irrigated late duration condition, average yield: 66.90 q/ha, maturity: 140–145 days, resistant to leaf blast and brown plant hopper
8.	Nellore Siri (NLR 4001) (IET 25273)	2020	Gazette Notification No. SO 3482 (E) Dated 07.10.2020 Suitable for irrigated late duration condition, average yield: 66.91 q/ha, maturity: 140–145 days, tolerant to neck blast and brown planthopper (BPH).
			Gazette Notification No. SO 3482 (E) Dated 07.10.2020
9.	Nellore Sugandha (NLR 40054) (IET 23194)	2020	Suitable for irrigated mid-early duration ecology, aromatic, photo insensitive, fine grain rice variety, average yield: 63.18 q/ha, maturity: 130–135 days, tolerant to leaf blast and gall midge.
			Gazette Notification No. SO 3482 (E) Dated 07.10.2020

10.	DRR Dhan 53 (RP-6113- Patho-BB9 (IET 27294)	2020	Non-Basmati variety, MAS derived product with an additional <i>'Xa38'</i> in the genetic background of Improved Samba Mahsuri (ISM) possessing three genes <i>Xa21, xa13</i> and <i>xa5</i> . It has enhanced resistance to bacterial blight. It recorded an average yield of 5.5 t/ha Gazette Notification No. SO 500 (E) Dated 29.01.2021
11.	28544 (IET 26549) (PHI- 17108)	2020	Non-Basmati variety, suitable for kharif, medium duration (135-140 days) hybrid with MS grain type, average yield: 6.5- 7.0 t/ha; resistant to bacterial leaf blight, tolerance to leaf blast & leaf folder
12.	NLR 40024	2020	Gazette Notification No. SO 500 (E) Dated 29.01.2021 Non-Basmati variety, suitable for early Kharif season, average yield 4.8 t/ha, duration 122-125 days, tolerant to high temperature, tolerant to major biotic stresses like blast Gazette Notification No. SO 500 (E) Dated 29.01.2021
13.	NLR 3041	2020	Non-Basmati variety, suitable for late duration (135-140 days) with high HRR (65%) and fine MS grain, average yield 5.2 t/ha Gazette Notification No. SO 500 (E) Dated 29.01.2021
14.	DRR Dhan 58 (IET 28784)	2021	Suitable for kharif season in salinity prone and bacterial blight endemic areas, yield 41.5 q/ha (in normal condition) and 28.4 q/ha (in coastal salinity stress condition), maturity 130–135 days, tolerant to salinity and resistant to bacterial blight (Saltol, Xa21, xa13 and xa5 genes introgressed in the genetic background of improved Samba Mahsuri).
15.	DRR Dhan 59 (IET 27280)	2021	Gazette Notification No. SO 8 (E) dated 24.12.2021 Suitable for irrigated, medium ecology condition, yield 55.0 q/ha, maturity 125–130 days, MAS derived, bacterial blight resistant (having bacterial blight resistance gene Xa33).
16.	DRR Dhan 60 (IET 28061)	2021	Gazette Notification No. SO 8 (E) dated 24.12.2021 Suitable for medium–low soil phosphorous regions and bacterial blight endemic areas, yield 39.7 q/ha under normal conditions and 37.64 q/ha under stress prone conditions, maturity 125–130 days and resistant to bacterial blight.
17.	DRR Dhan 62 (IET 28804)	2021	Gazette Notification No. SO 8 (E) dated 24.12.2021 Suitable for irrigated, transplanted condition, yield 42.3 q/ha, maturity 135–140 days, semi-dwarf, non-lodging, resistant to leaf blast, BLB, neck blast, brown spot and sheath-rot.
18.	MR 8666	2021	Gazette Notification No. SO 8 (E) dated 24.12.2021 Suitable for irrigated, condition, yield 70 q/ha, maturity 140 days, medium slender grains, moderately resistant to leaf blast, neck blast and BPH.
19.	MTU 1281	2021	Gazette Notification No. SO 8 (E) dated 24.12.2021 Suitable for irrigated, condition, yield 70.0 q/ha, maturity 140 days, nonlodging, low grain shattering, medium slender grain, moderately resistant to leaf blast, neck blast and BPH.
			Gazette Notification No. SO 8 (E) dated 24.12.2021

20.	MTU 1212 (IET 26819)	2021	Suitable for irrigated, transplanted condition, yield 79.7 q/ha, maturity 140 days, moderately resistant to leaf blast, neck blast, sheathblight, sheath-rot and BLB.
			Gazette Notification No. SO 8 (E) dated 24.12.2021
21.	MTU 1280	2021	Suitable for the irrigated, wetland ecosystem, yield 60.7 q/ha, maturity 135 days, non-lodging, low grain shattering with fertilizer responsiveness, moderately resistant to neck blast, rice tungro disease, stemborer and leaf folder.
			Gazette Notification No. SO 8 (E) dated 24.12.2021
22.	Kalinga Dhan- 1301	2021	Suitable for medium land, yield 59.6 q/ha, maturity 130 days, non-lodging, non-shattering, moderately resistant to neck blast, sheath-rot, BLB, BPH, stem-borer and leaf folder. Gazette Notification No. SO 8 (E) dated 24.12.2021
23.	AZ 8433 DT HRI-202 (IET 28160)	2022	Suitable for kharif irrigated, lowland for both high and low fertility conditions, yield 67.2 q/ha, maturity 130–135 days, resistant to BLB and BPH.
			Gazette Notification No. SO 4065 (E) Dated 31.08.2022
24.	CR Dhan 414 (IET 27051)	2022	Suitable for coastal saline ecology, yield 42.2 q/ha, maturity 145–150 days, tolerant to salinity, osmotic stress, stagnant flooding and ability for anaerobic germination, resistant to leaf folder, moderately resistant to stem-borer, neck blast and rice tungro virus.
			Gazette Notification No. SO 4065 (E) Dated 31.08.2022
25.	WGL-1487 (Telangana Vari-8) (IET 28818)	2022	Suitable for irrigated, and rainfed shallow low-land, yield 44.5 q/ha, maturity 125–130 days, MAS variety, shows consistent superiority under low soil p stress, having introgressed Pup 1 QTL, moderately resistant to leaf blast and neck blast and resistant to brown plant-hopper Gazette Notification No. SO 4065 (E) Dated 31.08.2022
26.	DRR Dhan 65 (IET 27641)	2022	Suitable for irrigated, and rainfed shallow low-land, yield 60.1 q/ha, maturity 130–135 days, shows consistent superiority under low soil p stress, tolerant to leaf blast, neck blast, plant- hoppers and stem-borer Gazette Notification No. SO 4065 (E) Dated 31.08.2022
27.	DRR Dhan 66 (IET 28066)	2022	Suitable for both kharif and rabi ecosystem in irrigated, and upland rice growing regions with low soil P, yield 50.3 q/ha, maturity 120–125 days, shows consistent superiority under low soil P stress, and moderately resistant to leaf blast. Gazette Notification No. SO 4065 (E) Dated 31.08.2022
28.	Sabour Heera Dhan (IET- 27538) (BRR 211)	2022	Suitable for rainfed shallow lowland ecosystem, yield 45.9 q/ha, maturity 145– 150 days, moderately resistant against gloom discoloration, brown spot, blast, bacterial leaf blight and sheath blight.
1			Gazette Notification No. SO 4065 (E) Dated 31.08.2022

29.	Pusa Samba 1853 (IET 28014)	2022	Suitable for irrigated, kharif, high fertility condition, yield 39.8 q/ha, maturity 140–145 days, MAS derived basmati rice variety with bacterial leaf blight resistant genes (Xa21+xa13) and blast resistant genes (Pi54+Pi1+Pita) have been introgressed. Gazette Notification No. SO 4065 (E) Dated 31.08.2022
30.	MTU Rice 1293	2022	Suitable for coastal saline lands, yield 59.4 q/ha, maturity 117–120 days, tolerant to salinity, moderately resistant to leaf blast, sheath-rot, rice tungro virus and brown spot diseases, and translucent kernels with high head rice recovery (66%).
31.	MTU Rice 1310	2022	Gazette Notification No. SO 4065 (E) Dated 31.08.2022 Suitable for irrigated, wetlands, yield 75.0 q/ha, maturity 135– 140 days, moderately resistant to neck blast, rice tungro disease, stem-borer, leaf folder and leaf blast, and translucent kernels with head rice recovery of 55%. Gazette Notification No. SO 4065 (E) Dated 31.08.2022
32.	MCM Rice 103 (IET 23407)	2023	Suitable for salt affected areas of Andhra Pradesh, grain yield 50.5 q/ha under saline conditions, maturity 140 days, medium slender grains, moderately resistance to leaf and neck blast, BPH and sheath blight. Gazette Notification NO. S.O.1056 (E), dated 6.03.2023
33.	MTU Rice 1232 (IET 26422)	2023	Suitable for flood prone areas of Andhra Pradesh, seed yield 38.0 q/ha under stress and 60.0 q/ha under normal conditions, maturity 140 days, medium slender grains, moderate resistant to leaf blast and sheath blight. Gazette Notification NO. S.O.1056 (E), dated 6.03.2023
34.	MTU Rice 1318 (IET 28527)	2023	Suitable for irrigated late ecology, grain yield 65.0 q/ha, maturity 150 days, medium slender grains, non-lodging, tolerant to leaf and neck blast.
35.	CR Dhan 804 (IET 28032) (CRR 751-1- 7-B-B)	2024	Gazette Notification NO. S.O.1056 (E), dated 6.03.2023 Suitable for drought-prone rainfed/ irrigated shallow low lands conditions, yield 48.82 q/ha, maturity 115 – 120 days, resistant to blast, and moderately resistant to brown spot, BLB, sheath rot, sheath blight and rice tungro. Gazette Notification No. SO 1560 (E) dated 26.03.2024
36.	CR Dhan 807 (CR 4333-35- 2-2-1) (IET 30438)	2024	Suitable for early direct seeded rainfed upland ecology, yield 44.02 q/ha, maturity 105-110 days, moderately resistant to brown spot and blast disease, tolerant to stem borer. Gazette Notification No. SO 1560 (E) dated 26.03.2024
37.	S7004 (IET 29001)	2024	Suitable for irrigated medium ecology, yield 61.97 q/ha, maturity 135 days, moderately tolerant to leaf blast, neck blast and brown spot diseases. Gazette Notification No. SO 1560 (E) dated 26.03.2024

38.	Spoorthi (GNV 1906) (IET 28694)	2024	Suitable for irrigated transplanting ecology, yield 53.26 q/ha, maturity 125-130 days, high zinc content of 20.05 ppm.
			Gazette Notification No. SO 1560 (E) dated 26.03.2024
39.	DRRH-5 (IET 27847) (IIRRH-115)	2024	Suitable for coastal salinity condition, yield 34.36 q/ha, maturity 124 days, moderately resistant to leaf blast, neck blast, sheath rot and plant hoppers.
			Gazette Notification No. SO 1560 (E) dated 26.03.2024
40.	INH 211120 (IET 28950) (HRI-207)	2024	Suitable for irrigated lowland, yield 60.35 q/ha, maturity 115 days, resistant to bacterial leaf blight and BPH
	. ,		Gazette Notification No. SO 1560 (E) dated 26.03.2024
41.	MTU Rice 1275 (IET 27908)	2024	Suitable for irrigated conditions, yield 67.86 q/ha, maturity 140 days, moderately resistance to leaf blast, neck blast, BLB and brown spot diseases.
			Gazette Notification No. SO 1560 (E) dated 26.03.2024
42.	Sava 7301 (SHX 015) (IET 27328)	2024	Suitable for irrigated, high fertility ecology, yield 65.35 q/ha, maturity 115-118 days, moderate resistance to leaf blast, neck blast, brown spot, sheath blight and BLB.
			Gazette Notification No. SO 1560 (E) dated 26.03.2024
43.	MTU Rice 1271 (IET 27416)	2024	Suitable for irrigated/ medium condition, yield- 65.00 q/ha, maturity 140 days (DFF:110), moderately resistant to BPH Gazette Notification No. SO 1560 (E) dated 26.03.2024
44.	Nellore Rice   3238 (NLR   3238) (IET   24336) (IET	2024	Suitable for irrigated/ medium early condition, yield 53.12 q/ha, maturity 120-125 days (DFF:90-95) Gazette Notification No. SO 1560 (E) dated 26.03.2024
45.	BPT Rice 2846 (IET 28737)	2024	Suitable for irrigated/ late condition, yield 50.74 q/ha, maturity 145-150 days (DFF:115-120) Gazette Notification No. SO 1560 (E) dated 26.03.2024
46.	BPTRice2841(IET27434)	2024	Suitable for irrigated/ medium condition, yield 52.57 q/ha, maturity 130-135 days (DFF:100-105) Gazette Notification No. SO 1560 (E) dated 26.03.2024
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