

AICRP on Wheat and Barley

Crop Improvement

Work Plan 2022-23

(Yield Trials)

**ICAR – Indian Institute of Wheat & Barley Research,
Karnal (Haryana)**

National Initial Varietal Trial
NIVT-1A-IR-TS-TAS, 2022-23

Conducting centres

Zone	No.	Centres
NWPZ	9	Delhi, Ludhiana, Gurdaspur, Hisar, Karnal, Pantnagar, Modipuram, Sriganganagar, Durgapura
NEPZ	6	Kanpur, Ayodhya, Varanasi, Sabour, Ranchi, Coochbehar
Total	15	

Details of trial entries

SN	Contributing Centres	No. of Entries	Name of entries
1.	IARI, Delhi	5	HD3472, HD3444, HD3445, HD3446, HD3447
2.	IIWBR, Karnal	5	DBW408, DBW409, DBW410, DBW411, DBW412
3.	Ludhiana	5	PBW908, PBW909, PBW910, PBW911, PBW912
4.	Pantnagar	3	UP3121, UP3122, UP3123
5.	Durgapura	3	RAJ4576, RAJ4577, RAJ4578
6.	Hisar	2	WH1315, WH1316
7.	Ayodhya	1	NW8072
8.	Kanpur	1	K2201
9.	Varanasi	1	HUW854
10.	Sabour	1	BRW3944
10.	CSSRI, Karnal	1	KRL2106
11.	Jammu	1	JAUW711
12.	Nuziveedu Seeds	1	NWS2442
13.	Kalyani	1	BCW28
14.	Coochbehar	1	UBW18
15.	Modipuram	1	SVPWL21-15
	Checks	3	DBW187, DBW222, HD3086
	Total	36(33+3)	

Experimental details

Design	: Simple Lattice
Replication	: Two
Plot size	: 6 x 1.20m (6 rows)
Fertilizer dose (kg/ha)	: 150:60:40 (N:P:K)
Time of sowing	: November 1-15
Seed requirement	: 7.0 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director.

National Initial Varietal Trial
NIVT-1B-IR-TS-TAS, 2022-23

Conducting centres

Zone	No.	Centres
NWPZ	8	Delhi, Ludhiana, Gurdaspur, Hisar, Karnal, Bulandshahr, Sriganaganagar, Durgapura
NEPZ	7	Kanpur, Ayodhya, Varanasi, Sabour, Prayagraj, Ranchi, Kalyani
Total	15	

Details of trial entries

SN	Contributing centres	No. of Entries	Name of entries
1.	IARI, Delhi	4+1	HD3448, HD3449, HP1978, HP1979, HD3467
2.	IIWBR, Karnal	5	DBW413, DBW414, DBW415, DBW416, DBW417
3.	Ludhiana	5	PBW913, PBW914, PBW915, PBW916, PBW917
4.	Pantnagar	2+1	UP3124, UP3125, UP3132
5.	Ayodhya	2	NW8073, NW8075
6.	Hisar	2	WH1317, WH1318
7.	Kanpur	2	K2203, K2204
8.	Sabour	2	BRW3946, BRW3942
9.	Durgapura	1	RAJ4579
10.	Ranchi	1	JKW305
11.	Varanasi	1	HUW855
12.	Nuziveedu Seeds	1	NWS2216
13.	Kalyani	1	BCW29
14.	Coochbehar	1	UBW19
15.	Modipuram	1	SVPWL21-07
	Checks	3	DBW187, DBW222, HD3086
	Total	36 (33+3)	

Experimental details

Design	: Simple Lattice
Replication	: Two
Plot size	: 6 x 1.20m (6 rows)
Fertilizer dose (kg/ha)	: 150:60:40 (N: P: K)
Time of sowing	: November 1-15
Seed requirement	: 7.0 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

National Initial Varietal Trial
NIVT-2-IR-TS-TAS, 2022-23

Conducting centres

Zone	No.	Centres
CZ	10	Indore, Powarkheda, Jabalpur, Sagar, Gwalior, Bilaspur, Junagadh, Vijapur, SK Nagar, Udaipur
PZ	7	Niphad, Pune, Akola, Dhule, Parbhani, Dharwad, Nippani
Total	17	

Details of trial entries

SN	Contributing Centres	No. of Entries	Name of entries
1.	IARI, Delhi	4	HD3450, HD3451, HI1683, HI1684
2.	Pune	4	MACS6826, MACS6837, MACS6842, MACS6844
3.	Vijapur	3	GW548, GW549, GW550
4.	IIWBR, Karnal	2	DBW418, DBW419
5.	Dharwad	2	UAS3025, UAS3026
6.	Jabalpur	2	MP3570, MP3573
7.	Niphad	2	NIAW4364, NIAW4440
8.	Powarkheda	2	MP1392, MP1393
9.	Junagadh	2	GW554, GW555
10.	Udaipur	2	PWU16, PWU20
11.	Ludhiana	1	PBW918
12.	Durgapura	1	RAJ4582
13.	Bilaspur	1	CG1045
14.	Akola	1	AKAW 5347
15.	Parbhani	1	DSS-16-1766-1
16.	Lok Bharti	1	LOK80
17.	Nuziveedu Seeds	1	NWS2170
19.	Bioseeds	1	BW18R6016
	Checks	3	GW322, DBW187, MACS6222
Total entries		36 (33+3)	

Experimental Details

Design	: Simple Lattice
Replication	: Two
Plot size	: 6 x 1.20m (6 rows)
Fertilizer dose (kg/ha)	: 120:60:40 (N: P: K)
Time of sowing	: November 5-15
Seed requirement	: 7.0 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

**National Initial Varietal Trial
NIVT-3A-IR-LS-TAS, 2022-23**

Conducting centres

Zone	No.	Centres
NWPZ	9	Delhi, Jammu, Ludhiana, Gurdaspur, Hisar, Karnal, Pantnagar, Durgapura, Modipuram
NEPZ	10	Kanpur, Ayodhya, Varanasi, Sabour, RPCAU-Pusa, Ranchi, Kalyani, Coochbehar, Burdwan, Shillongani
Total	19	

Details of trial entries

SN	Contributing centres	No. of Entries	Name of entries
1.	IARI, Delhi	4+1	HD3452, HD3453, HD3454, HD3455, HP1980
2.	IIWBR, Karnal	5	DBW420, DBW421, DBW422, DBW423, DBW424
3.	Ludhiana	5	PBW919, PBW920, PBW921, PBW922, PBW923
4.	Hisar	3	WH1322, WH1323, WH1324
5.	Kanpur	3	K2206, K2207, K2208
6.	Durgapura	2	RAJ4580, RAJ4581
7.	Ayodhya	2	NW8055, NW8071
8.	Pantnagar	2	UP3126, UP3127
9.	Ranchi	1	JKW303
10.	Sabour	1	BRW3941
11.	Kalyani	1	BCW 30
12.	Coochbehar	1	UBW20
13.	Modipuram	1	SVPWL21-14
	Checks	4	HD3059, DBW173, HI1563, DBW107
Total entries		36 (32+4)	

Experimental Details

Design	: Simple Lattice
Replication	: Two
Plot size	: 6 x 1.08m (6 rows)
Fertilizer dose (kg/ha)	: 120:60:40 (N: P: K)
Time of sowing	: December 5-15
Seed requirement	: 7.0 kg per entry

Note: Change in test sites, date of sowing, trial entries, etc. will be invalid if not approved by the Director

**National Initial Varietal Trial
NIVT-3B-IR-LS-TAS, 2022-23**

Conducting centres

Zone	No.	Centres
CZ	9	Indore, Powarkheda, Jabalpur, Gwalior, Bilaspur, Junagadh, Vijapur, SK Nagar, Lok-Bharti
PZ	8	Dharwad, Niphad, Akola, Pune, Bagalkot, Dhule, Nippani, Parbhani
Total	17	

Details of trial entries

SN	Contributing centres	No. of Entries	Name of entries
1.	IARI, Delhi	4	HD3456, HI1685, HI1686, HI1687
2.	IIWBR, Karnal	2	DBW425, DBW426
3.	Dharwad	2	UAS3027, UAS3028
4.	Jabalpur	2	MP3568, MP3575
5.	Niphad	2	NIAW4300, NIAW4432
6.	Pune	2	MACS6829, MACS6830
7.	Vijapur	1+1	GW551, GW558
8.	Akola	1	WSM138
9.	Bilaspur	1	CG1046
10.	Hisar	1	WH1325
11.	Junagadh	1	GW556
12.	Lok Bharti	1	LOK81
13.	Ludhiana	1	PBW924
14.	Powarkheda	1	MP1394
	Checks	2	HD2864, HD2932
Total entries		25 (23+2)	

Experimental Details

Design	: Simple Lattice
Replication	: Two
Plot size	: 6 x 1.08m (6 rows)
Fertilizer dose (kg/ha)	: 90:60:40 (N: P: K)
Time of sowing	: December 5-15
Seed requirement	: 7.0 kg per entry

Note: Change in test sites, date of sowing, trial entries, etc. will be invalid if not approved by the Director

National Initial Varietal Trial
NIVT-4-IR-TS-TDM, 2022-23

Conducting centres

Zone	No.	Centres
CZ	9	Powarkheda, Indore, Junagadh, Gwalior, Vijapur, SK Nagar, Kota, Udaipur, Dhandhuka
PZ	7	Dharwad, Bagalkot, Nippani, Niphad, Pune, Akola, Parbhani
Total	16	

Details of trial entries

SN	Contributing Centres	No. of Entries	Name of entries
1.	IARI, Delhi	3	HI8848, HI8849, HI8850
2.	Niphad	2+1	NIDW1499, NIDW1534, NIDW1520
3.	IIWBR, Karnal	2	DDW62, DDW63
4.	Dharwad	2	UAS482, UAS483
5.	Ludhiana	2	PDW364, PDW365
6.	Powarkheda	2	MPO1395, MPO1396
7.	Pune	2	MACS4125, MACS4135
8.	Vijapur	2	GW1365, GW1366
9.	Hisar	1	WHD968
10.	Udaipur	1	PWU24
11.	Junagadh	1	GW1367
12.	Akola	1	AKDW5516
	Checks	3	HI8713, HI8737, MACS3949
Total entries		25 (22+3)	

Experimental Details

Design	: Simple Lattice
Replication	: Two
Plot size	: 6 x 1.20m (6 rows)
Fertilizer dose (kg/ha)	: 120:60:40 (N: P: K)
Time of sowing	: November 5-15
Seed requirement	: 7.0 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

**National Initial Varietal Trial
NIVT-5A-RI-TS-TAS, 2022-23**

Conducting centres

Zone	No.	Centres
NWPZ	10	Delhi, Jammu, Gurdaspur, Ludhiana, Hisar, Karnal, Sriganaganagar, Modipuram, Bulandshahr, Durgapura
NEPZ	9	Kanpur, RPCAU-Pusa, Varanasi, Sabour, Ranchi, Kalyani, Coochbehar, Burdwan, Shillongani
Total	19	

Details of trial entries

SN	Contributing Centres	No. of Entries	Name of entries
1.	IARI, Delhi	4+1	HD3457, HD3458, HD3459, HD3460, HD3468
2.	IIWBR, Karnal	4	DBW427, DBW428, DBW429, DBW430
3.	Ludhiana	4	PBW925, PBW926, PBW927, PBW928
4.	Pantnagar	1+1	UP3129, UP3133
5.	Hisar	2	WH1326, WH1327
6.	Kanpur	1	K2210
7.	Ayodhya	1	NW8053
8.	Ranchi	1	JKW304
9.	Sabour	1	BRW3935
10.	Jammu	1	JAUW705
	Checks	3	HI1612, K1317, PBW644
Total entries		25 (22+3)	

Experimental Details

Design	: Simple Lattice
Replication	: Two
Plot size	: 6 x 1.20m (6 rows)
Irrigations	: Two (pre-sowing & one irrigation at 45-50 DAS)
Fertilizer dose (kg/ha)	: 90:60:40(N:P:K)
Time of sowing	: Oct. 25 - Nov. 5
Seed requirement	: 7.0 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

National Initial Varietal Trial
NIVT-5B-RI-TS-TAD, 2022-23

Conducting centres

Zone	No.	Centres
CZ	11	Indore, Sagar, Jabalpur, Bilaspur, Udaipur, Kota, Vijapur, SK Nagar, Junagadh, Dhandhuka, Powarkheda
PZ	7	Dharwad, Nippani, Niphad, Pune, Dhule, Akola, Parbhani
Total	18	

Details of trial entries

SN	Contributing Centres	No. of Entries	Name of entries
1.	Delhi	5	HI1688, HI1689, HI1693, HI8851(d), HI8852(d)
2.	IIWBR, Karnal	4	DBW428, DBW431, DBW432, DDW64(d)
3.	Dharwad	2	UAS3029, UAS484(d)
4.	Niphad	2	NIAW4267, NIAW4387
5.	Vijapur	2	GW552, GW1368(d)
6.	Akola	1	AKAW5514
7.	Bilaspur	1	CG1047
8.	Jabalpur	1	MP3577
9.	Powarkheda	1	MP01398(d)
10.	Pune	1	MACS4131(d)
11.	Parbhani	1	PBN16-1826
	Checks	4(2A+2D)	DBW110, HI1605, HI8627(d), UAS446(d)
	Total entries	25 (21+4)	

Experimental Details

Design	: Simple Lattice
Replication	: Two
Plot size	: 6 x 1.20m (6 rows)
Irrigations	: Two (1 pre-sowing & one irrigation at 40-45 DAS) (Limit of 3 Irrigations in Gujarat)
Fertilizer dose (kg/ha)	: 90:60:40(N:P:K)
Time of sowing	: Oct. 25 – Nov. 05
Seed requirement	: 7.0 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

National Initial Varietal Trial
NIVT-6-ES-IR-NWPZ/CZ, 2022-23

Trial conducting centres

Zone	No.	Centres
NWPZ	7	Delhi, Ludhiana, Ladowal, Hisar, Karnal, Bulandshahr, Sriganaganagar
CZ	7	Indore, Powarkheda, Jabalpur, BISA-Jabalpur, Bilaspur, Junagadh, Vijapur
Total	14	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IARI, Delhi	4+2	HD3461, HD3462, HD3463, HD3464, HI1690, HI1691
PAU, Ludhiana	5+1	PBW903, PBW904, PBW905, PBW906, PBW907, PBW929
IIWBR/BISA	5+3	DBW433, DBW434, DBW435, DBW436, DBW437, DBW338, DBW339, DBW440
CCSHAU, Hisar	2	WH1320, WH1321
GBPUAT, Pantnagar	1	UP3130
RARI, Durgapura	1	Raj4583
BAU, Sabour	1	BRW3922
IGKV, Bilaspur	1	CG1049
RPCAU, Pusa	1	RAUW107
JNKVV, Sagar	1	JWS1333
SDAU, Vijapur	1	GW553
GAU, Junagadh	1	GW557
JNKVV, Jabalpur	1	MP3572
JNKVV, Powarkheda	1	MP1399
Checks	4	DBW187, DBW303, DBW327, DBW332
Total	36 (32+4)	

Experimental details

Design	: Simple Lattice (5x5)
Replications	: Two
Plot size	: 6 x 1.20m (6 rows)
Fertilizer dose (kg/ha)	: 150% RFD+ FYM15 t/ha+ Growth Regulators*
Time of sowing	: October 25- November 5
Seed rate (kg/ha)	: 100
Seed requirement	: 7 Kg per entry

* **Note:** Two sprays as tank mix-Chloromequat chloride @ 0.2%+ tebuconazole @ 0.1% of commercial product dose at First Node and Flag leaf (Tank mix application). Use 400 l/ha of water for spraying.

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

Northern Hills Zone
Initial Varietal Trial, 2022-23
IVT-RF-TS-TAS

Trial conducting centres

State	Centres	Name of the centres
Himachal Pradesh	3	Malan, Shimla, Bajaura
Uttarakhand	3	Almora, Majhera, Gaja
J&K	2	Khudwani, Wadura
Manipur	1	Imphal
Total	9	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IARI, Shimla	6	HS695, HS696, HS697, HS698, HS699, HD3466
CSKHPKV, Malan	6	HPW489, HPW490, HPW491, HPW492, HPW493, HPW494
VPKAS, Almora	6	VL2051, VL2052, VL2053, VL2054, VL3031, VL3032
SKUAST-K	3	SKW368, SKUAW101, SKUAW102
GBPUA&T, Pantnagar	2	UP3131, UP3132
Checks	3	HS507, HS562, VL892
Total	26 (23+3)	

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 3.5 x 1.20m (6 rows)
Fertilizer dose (kg/ha)	: 60:30:20 (N:P:K)
Time of sowing	: Oct. 15-31
Seed rate (kg/ha)	: 100
Seed requirement	: 6 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

Northern Hills Zone
Advance Varietal Trial, 2022-23
AVT-RF-TS-TAS

Trial conducting centres

State	Centres	Name of the centres
Himachal Pradesh	3	Malan, Shimla, Bajaura
Uttarakhand	3	Almora, Majhera, Gaja
J&K	2	Khudwani, Wadura
Manipur	1	Imphal
Total	9	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IARI, New Delhi	2	HS691, HS692
VPKAS, Almora	1	VL3028
CSKHPKV, Palampur	1	HPW484
Checks	5	VL907, VL892, HPW349, HS562, VL2041(I)
Total	9 (4+5)	

Experimental details

Design	: R.B.D.
Replications	: Six
Plot size	: 3.5 x 1.20m (6 rows)
Fertilizer dose (kg/ha) (N:P:K)	: (60:30:20)
Time of sowing	: October 15-31
Seed rate (kg/ha)	: 100
Seed requirement	: 6 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

North Western Plains Zone
Advance Varietal Trial, 2022-23
AVT-IR-TS-TAS

Trial conducting centres

State	No.	Centres
Punjab	2	Ludhiana, Gurdaspur
Haryana	3	Hisar, Karnal, Bawal
Rajasthan	2	Sriganganagar, Durgapura
Uttar Pradesh	3	Bulandshahr, Modipuram, Nagina
Uttarakhand	1	Pantnagar
J & K	1	Jammu
Delhi	1	Delhi
Total	13	

Details of test entries

Contributing Centres	No. of entries	Name of entries
PAU, Ludhiana	2	PBW887, PBW889
IARI, Delhi	3	HD3386*, HD3470 ^M , HD3471 ^M
IARI, Indore	1	HI1668
IIWBR, Karnal	1	DBW386 [#]
GBPUAT, Pantnagar	1	UP3102 [#]
Checks	5	HD2967, HD3086, DBW187, DBW222, PBW826(I)
Total	13 (8+5)	

* denotes final year entry

denotes resistance to wheat blast

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Fertilizer dose (kg/ha)	: 150:60:40 (N:P:K)
Time of sowing	: November 1-15
Seed rate (kg/ha)	: 100
Seed requirement	: 20 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

North Western Plains Zone
Advance Varietal Trial, 2022-23
AVT-IR-LS-TAS

Trial conducting centres

State	No.	Centres
Punjab	2	Ludhiana, Gurdaspur
Haryana	2	Hisar, Karnal
Rajasthan	1	Durgapura
Uttar Pradesh	3	Nagina, Bulandshahr, Modipuram
Uttarakhand	1	Pantnagar
J & K	1	Jammu
Delhi	1	Delhi
Total	11	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IARI, Delhi	1	HD3428
PAU, Ludhiana	1	PBW893
CSA, Kanpur	1	K2108
Checks	4	HD3059, DBW173, PBW771, JKW261
Total	7 (3+4)	

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.16m (12 rows)
Fertilizer dose (kg/ha)	: 120:60:40 (N:P:K)
Time of sowing	: December 5-15
Seed rate (kg/ha)	: 125
Seed requirement	: 20 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

**North Western Plains Zone
Advance Varietal Trial, 2022-23
AVT-RI-TS-TAS**

Trial conducting centres

State	No.	Centres
Punjab	2	Ludhiana, Gurdaspur
Haryana	3	Hisar, Karnal, Bawal
Uttar Pradesh	3	Modipuram, Nagina, Bulandshahr
Rajasthan	2	Sriganganagar, Durgapura
Uttarakhand	1	Pantnagar
J&K	1	Jammu
Delhi	1	Delhi
Total	13	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IIWBR, Karnal	2	DBW397, DBW398
HAU, Hisar	2	WH1402*, WH1311
GBPUAT, Pantnagar	1	UP3111
PAU, Ludhiana	1	PBW899
Checks	6	PBW644, NIAW3170, DBW296, HD3369(I), HI1653(I), HI1654(I)
Total	12 (6+6)	

* denotes final year entry

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Irrigations	: Two (pre-sowing & one irrigation at 45-50 DAS)
Fertilizer dose (kg/ha)	: 90:60:40 (N:P:K)
Time of sowing	: Oct. 25 – Nov. 5
Seed rate (kg/ha)	: 100
Seed requirement	: 18 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

**North Eastern Plains Zone
Advance Varietal Trial, 2022-23
AVT-IR-TS-TAS**

Trial conducting centres

State	No.	Centres
Uttar Pradesh	5	Kanpur, Prayagraj, Mau, Ayodhya, Varanasi
Bihar	2	Sabour, RPCAU-Pusa
West Bengal	3	Coochbehar, Kalyani, Burdwan
Jharkhand	2	Ranchi, Dumka
Assam	1	Shillongani
Total	13	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IIWBR, Karnal	1	DBW386 [#]
IARI, Delhi	3	HD3388*, HD3470 ^M , HD3471 ^M
Checks	6	HD3249, DBW187, HD3086, HD2967, DBW222, PBW826(I)
Total	10 (4+6)	

denotes resistance to wheat blast

* denotes final year entry

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Fertilizer dose (kg/ha)	: 150:60:40 (N:P:K)
Time of sowing	: November 1-15
Seed rate (kg/ha)	: 100
Seed requirement	: 20 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

**North Eastern Plains Zone
Advance Varietal Trial, 2022-23
AVT-RI-TS-TAS**

Trial conducting centres

State	No.	Centres
Uttar Pradesh	4	Kanpur, Prayagraj, Mau, Varanasi
Bihar	2	Sabour, RPCAU-Pusa
West Bengal	3	Coochbehar, Kalyani, Burdwan
Jharkhand	2	Ranchi, Dumka
Assam	1	Shillongani
Total	12	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IIWBR, Karnal	1	DBW398
Checks	5	HI1612, K1317, HD3171, HD3293, DBW252
Total	6 (1+5)	

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Irrigation	: Two (pre-sowing & one irrigation at 45-50 DAS)
Fertilizer dose (kg/ha)	: 90:60:40 (N:P:K)
Time of sowing	: Oct. 25 – Nov. 5
Seed rate (kg/ha)	: 100
Seed requirement	: 20 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

Central Zone
Advance Varietal Trial, 2022-23
AVT-IR-TS-TAS

Trial conducting centres

State	No.	Centres
Gujarat	5	Vijapur, SK Nagar, Junagadh, Anand, Dhandhuka
Madhya Pradesh	6	Jabalpur, Sagar, Gwalior, Powarkheda, Indore, Jhansi
Chhattisgarh	2	Bilaspur, Raipur
Rajasthan	1	Udaipur
UP	1	Banda
Total	15	

Details of test entries

Contributing Centres	No. of entries	Name of entries
Nuziveedu Seeds	1	NWS2194 ^{#*}
IARI, Indore	2	HI1669, HI1670 ^Q
UAS, Dharwad	1	UAS3020
SDAU, Vijapur	1	GW547*
Checks	5	GW322, GW513, HI1636, HI1650(I), MACS6768(I)
Total	10 (5+5)	

* denotes final year entry; # denotes resistance to wheat blast

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Fertilizer dose (kg/ha)	: 120:60:40 (N:P:K)
Time of sowing	: November 5-15
Seed rate (kg/ha)	: 100
Seed requirement	: 18 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

Central Zone
Advance Varietal Trial, 2022-23
AVT-IR-LS-TAS

Trial conducting centres

State	No.	Centres
Gujarat	5	Vijapur, SK Nagar, Junagadh, Anand, Lok-Bharti
Madhya Pradesh	4	Jabalpur, Gwalior, Powarkheda, Indore
Chhattisgarh	2	Bilaspur, Raipur
UP	1	Banda
Total	12	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IARI, Indore	3	HI1673, HI1674, HI1675
PDKV, Akola	1	AKAW5104
JNKV, Jabalpur	1	MP3557 [#]
Checks	5	RAJ4083, HD2932, HD3090, HI1633, CG1029
Total	10 (5+5)	

[#] denotes resistance to wheat blast

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6m x 2.16m (12 rows)
Fertilizer dose (kg/ha)	: 90:60:40 (N:P:K)
Time of sowing	: Dec. 5-15
Seed rate (kg/ha)	: 125
Seed requirement	: 16 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

Central Zone
Advance Varietal Trial, 2022-23
AVT-RI-TS-TAS

Trial conducting centres

State	No.	Centres
Gujarat	5	Vijapur, SK Nagar, Dhandhuka, Junagadh, Anand
Madhya Pradesh	5	Powarkheda, Jabalpur, Sagar, Indore, Jhansi
Chhattisgarh	2	Bilaspur, Raipur
Rajasthan	2	Kota, Udaipur
UP	1	Banda
Total	15	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IIWBR, Karnal	3	DBW359*, DBW441 ^M , DBW442 ^M
IGKV, Bilaspur	1	CG1040*
Checks	4	MP3288, DBW110, CG1036(I), HI1655(I)
Total	8 (4+4)	

* final year entry

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Irrigations	: Two (pre-sowing & one irrigation at 40-45 DAS (Limit of 3 Irrig. in Gujarat)
Fertilizer dose (kg/ha)	: 90:60:40 (N:P:K)
Time of sowing	: Oct. 25 – Nov. 05
Seed rate (kg/ha)	: 100
Seed requirement	: 16 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

Peninsular Zone
Advance Varietal Trial, 2022-23
AVT-IR-TS-TAD

Trial conducting centres

State	No.	Centres
Maharashtra	7	Niphad, Pune, Dhule, Akola, Parbhani, Nashik, Karad
Karnataka	4	Dharwad, Ugar-Khurd, Kalloli, Nippani
Total	11	

Details of test entries

Contributing Centres	No. of entries	Name of entries
UAS, Dharwad	2	UAS3020, UAS3021
ARI, Pune	2	MACS6811, MACS6809
ARS, Niphad	2	NIAW4183, NIAW4153
PDKV, Akola	2	AKAW5314, AKAW5100
JNKV, Powarkheda	2	MP1378 [*] , MP1386
IWBR, Karnal	2	DBW438 ^B , DBW439 ^B
IARI, Delhi	1	HD3469 ^B
Nuziveedu Seeds	1	NWS2222
MPUAT, Udaipur	1	PWU15
CCSHAU, Hisar	1	WH1306
PAU, Ludhiana	1	PBW891 [#]
IARI, Indore	1	HI8841(d)
GBPUAT, Pantnagar	1	UP3083 ^B
Checks	5	MACS3949(d), HI8826(d)(I), MACS4100(d)(I), MACS6222, GW322
Total	24 (19+5)	

* final year entry, # denotes resistance to wheat blast, ^B promotion from QCWBN

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Fertilizer dose (kg/ha)	: 120:60:40 (N:P:K)
Time of sowing	: November 5-15
Seed rate (kg/ha)	: 100 kg/acre
Seed requirement	: 18 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

Peninsular Zone
Advance Varietal Trial, 2022-23
AVT-IR-LS-TAS

Trial conducting centres

State	No.	Centres
Maharashtra	7	Niphad, Pune, Nashik, Akola, Dhule, Karad, Parbhani
Karnataka	5	Dharwad, Ugar-Khurd, Bagalkot, Kalloli, Nippani
Total	12	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IARI, Indore	4	HI1674, HI1672, HI1673, HI1675
IIWBR, Karnal	2	DBW394, DBW395
ARI, Pune	2	MACS6814, MACS6805
ARS, Niphad	2	NIAW4114, NIAW4120
UAS, Dharwad	2	UAS3022, UAS3023
JNKV, Jabalpur	2	MP3557, MP3556 [#]
PAU, Ludhiana	1	PBW897 ^Q
JNKV, Powarkheda	1	MP1388
PDKV, Akola	1	AKAW5104
GAU, Junagadh	1	GW542
SDAU, Vijapur	1	GW538
CCSHAU, Hisar	1	WH1310
Lokbharti	1	LOK79
Checks	4	RAJ4083, HD2932, HD3090, HI1633
Total	25 (21+4)	

[#] denotes resistance to wheat blast

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6m x 2.16m (12 rows)
Fertilizer dose (kg/ha)	: 90:60:40 (N:P:K)
Time of sowing	: Dec. 5-15
Seed rate (kg/ha)	: 125
Seed requirement	: 16 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

Peninsular Zone
Advance Varietal Trial, 2022-23
AVT-RI-TS-TAD

Trial conducting centres

State	No.	Centres
Maharashtra	6	Akola, Pune, Niphad, Nashik, Parbhani, Karad
Karnataka	5	Dharwad, Nippani, Bagalkot, Ugar-Khurd, Kalloli
Total	11	

Details of test entries

Contributing Centres	No. of entries	Name of entries
UAS, Dharwad	2	UAS478(d)*, UAS481(d)
IARI, Indore	2	HI1665*, HI8840(d)*
IIWBR, Karnal	3	DBW359*, DBW397 ^Q , DDW61(d)
ARS, Niphad	1	NIAW4028 ^{#*}
Checks	4	HI1605, NIAW3170, UAS446(d), NIDW1149(d)
Total	12 (8+4)	

* final year entry

denotes resistance to wheat blast

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Irrigations	: Two (pre-sowing & one irrigation at 40-45 DAS)
Fertilizer dose (kg/ha)	: 90:60:40 (N:P:K)
Time of sowing	: Oct. 25 – Nov. 5
Seed rate (kg/ha)	: 100
Seed requirement	: 15 kg per entry

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

SPL - HYPT, 2022-23
(IR-ES-TAS-NWPZ)

Trial conducting centres

Zone	No.	Centres
NWPZ	7	Delhi, Ludhiana, Ladowal, Hisar, Karnal, Modipuram, Sriganaganagar
Total	7	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IIWBR, Karnal	1	DBW380 [#]
Checks	6	DBW187, DBW303, DBW370(I), DBW371(I), DBW372(I), PBW872(I)
Total	7 (1+6)	

[#] denotes resistance to wheat blast

Experimental details

Design	: R.B.D.
Replications	: Four
Plot size	: 6 x 2.40m (12 rows)
Fertilizer dose (kg/ha)	: 150% RFD+ FYM15 t/ha+ Growth Regulators*
Time of sowing	: Oct. 25 – Nov. 5
Seed rate (kg/ha)	: 100
Seed requirement	: 8 Kg per entry + Agronomy 18 Kg

* **Note:** Two sprays as tank mix-Chloromequat chloride @ 0.2%+ tebuconazole @ 0.1% of commercial product dose at First Node and Flag leaf (Tank mix application). Use 400L/ha of water for spraying

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

SPL – HYPT, 2022-23
(IR-ES-TAS-CZ)

Trial conducting centres

Zone	No.	Centres
CZ	7	Indore, Powarkheda, BISA-Jabalpur, JNKVV-Jabalpur, Bilaspur, Junagadh, Vijapur
Total	7	

Details of test entries

Contributing Centres	No. of entries	Name of entries
IIWBR, Karnal	1	DBW377#*
IGKV, Bilaspur	1	CG1044
SDAU, Vijapur	1	GW543
Checks	3	DBW187, DBW303, GW322
Total	6 (3+3)	

denotes resistance to wheat blast; * final year entry

Experimental details

Design	:	R.B.D.
Replications	:	Four
Plot size	:	6 x 2.40m (12 rows)
Fertilizer dose (kg/ha)	:	150% RFD+ FYM15 t/ha+ Growth Regulators*
Time of sowing	:	1-10 November
Seed rate (kg/ha)	:	100
Seed requirement	:	8 Kg per entry + Agronomy 18kg

* **Note:** Two sprays as tank mix-Chlormequat chloride @ 0.2%+ tebuconazole @ 0.1% of commercial product dose at First Node and Flag leaf (Tank mix application). Use 400L/ha of water for spraying

Note: Change in test sites, date of sowing, trial entries etc. will be invalid if not approved by the Director

CI - Final Year Entries and Checks (2022-23)

Entry	Checks
AVT-IR-TS-TAS - North Western Plains Zone	
HD3386	HD2967, HD3086, DBW187, DBW222, PBW826(I)
AVT-RI-TS-TAS - North Western Plains Zone	
WH1402	PBW644, NIAW3170, DBW296, HI3369(I), HI1653(I), HI1654(I)
AVT-IR-TS-TAS - North Eastern Plains Zone	
HD3388	HD3249, DBW187, HD3086, HD2967, DBW222, PBW826(I)
AVT-IR-TS-TAD – Central Zone	
NWS2194, GW547	GW322, GW513, HI1636, HI1650(I), MACS6768(I)
AVT-RI-TS-TAD – Central Zone	
DBW359, CG1040	MP3288, DBW110, CG1036(I), HI1655(I)
AVT-IR-TS-TAD – Peninsular Zone	
MP1378	MACS3949(d), HI8826(d)(I), MACS4100(d)(I), MACS6222, GW322
AVT-RI-TS-TAS – Peninsular Zone	
UAS478(d), HI8840(d), HI1665, DBW359, NIAW4028	HI1605, NIAW3170, UAS446(d), NIDW1149(d)
SPL-HYPT-IR-ES-TAS-CZ/PZ	
DBW377	DBW187, DBW303, GW322

Note: Varieties recommended by VIC have been included as identified checks in respective trial(s).

NATIONAL NURSERIES

Heat & Drought Tolerance Screening Trial (HDTST), 2022-23

Conducting centres

Zone	No.	Centres
NWPZ	3	Hisar, Karnal, Ludhiana
NEPZ	3	Ranchi, Sabour, RPCAU-Pusa
CZ	3	Junagadh, Indore, Vijapur
PZ	3	Pune, Dharwad, Niphad
Total	12	

Details of trial entries

SN	Contributing centres	No. of Entries	Name of entries
1.	IARI, New Delhi	2	HD3386, HD3388
2.	Nuziveedu seeds	1	NWS2194
3.	IWBR, Karnal	2	DBW359, DBW377
4.	Bilaspur	1	CG1040
5.	Hisar	1	WH1402
6.	Niphad	1	NIAW4028
7.	Dharwad	1	UAS478(d)
8.	Vijapur	1	GW547
9.	Powarkheda	1	MP1378
10.	Indore	2	HI8840(d), HI1665
	Checks	12	DBW187, HD3086, WH730, RAJ3765, GW322, HI1605, DBW110, HD2932, NIAW3170, NIDW1149(d) + Two identified checks
Total entries		25 (13+12)	

Experimental details

Design	:	Simple lattice
Replications	:	Two
Plot size	:	4 rows of 2.5 m length
Treatments	:	3 (timely and late sown with minimum 21 days and maximum 1 month difference between the two sowings and one rainfed condition)
Time of sowing	:	NWPZ & NEPZ: TS: Nov.1-15, LS: Minimum 21 days and maximum one-month difference between two sowings, RF-Oct.25-Nov.5th CZ & PZ: TS: Nov.5-15 LS: Minimum 21 days and maximum 1 month difference between two sowings, RF-Oct.25-Nov.5th
Fertilizer dose (Kg/ha)	:	As per the recommendation of the zones
Seed rate (kg/ha)	:	TS:100, LS:125, RF:125
Seed requirement	:	4 kg per entry

Observations to be recorded: Germination%, Days to heading, Days to anthesis, Days to maturity, Plant height (cm), Total biomass of each net plot at harvest (g), Productive tillers of one full row length, Grain yield of each gross plot (g), 1000-grains weight (g), Grain number per spike, Grain weight per spike, Two recordings of NDVI at 15 days after sowing and again at 21 days after anthesis, Canopy temperature at 15 days and 21 days after anthesis, Chlorophyll content at 15 days and 21 days after anthesis.

NATIONAL GENETIC STOCK NURSERY (NGSN) [Suggested Crossing Block]

Conducting Centres

Zone	No	Centres
NHZ	3	Almora, Malan, Khudwani
NWPZ	7	IWBR-Karnal, CSSRI-Karnal, Jammu, Hisar, Pantnagar, Ludhiana, Durgapura
NEPZ	8	Ayodhya, Kanpur, Sabour, RPCAU-Pusa, Ranchi Coochbehar, Kalyani, IARI-Hazaribagh
CZ	10	Indore, Gwalior, Jabalpur, Udaipur, Vijapur, Bilaspur, Junagadh, Lok-Bharti, Powarkheda, Mandor
PZ	5	Pune, Dharwad, Akola, Niphad, Parbhani
Total	33	

Details of entries & Checks

NGSN consists latest released/identified varieties, genetic stocks, confirmed elite lines from national nurseries, proven elite lines (with 3 years testing and/or published information)	
Contributing Centres	Dharwad, IARI-New Delhi, IWBR-Karnal, PAU-Ludhiana, CCHAU-Hisar, Vijapur, BARC, Pantnagar, NBPGR, N. Delhi
Checks	Total=04: Sonalika, HD 2967, DBW 187, HI 8713 (d)
Total	100 (96+4)

Experimental details

Design	: Augmented Block Design
Plot size	: 02 row plot of 2.5m length spaced at 20cm apart (1.0 m ²)
Fertilizer dose	: As recommended
Time of sowing	: NWPZ/NEPZ : November 1-15; CZ / PZ : November 5-20
Seed requirement	: 750g seed each entry; 2.0 kg check varieties

Observations: Grain yield/plot (g), days to heading, days to maturity, plant height, tillers/m row, 1000 grains weight, rusts, leaf blight, powdery mildew, loose smut, other diseases (artificial epiphytotic conditions)

Utilization report: 1. As donor in hybridization 2. direct selection 3. germplasm enrichment (trait)

26th SEGREGATING STOCK NURSERY (SSN)

Conducting Centres

Zone	No.	Centres
NHZ	3	Khudwani, Wadura, Almora
NWPZ	4	Jammu, Hisar, Pantnagar, Durgapura
NEPZ	4	Ayodhya, Kalyani, Ranchi, Sabour,
CZ	8	Bilaspur, Durgapura, Jabalpur, Udaipur, Lok-Bharati, Junagadh, Powarkheda, Mandor
PZ	5	Akola, Parbhani, Pune, Dharwad, Niphad
Total	24	

Details of cross combinations

Contributing Centres	No. of crosses	Priority trait(s)
IIWBR Karnal	50	Yellow rust, spot blotch, quality, abiotic stress, pre-breeding
IARI, Delhi	50	Yield, adaptation, pre-breeding, quality, leaf rust, stem rust
Ludhiana	30	Yellow rust, quality, adaptation, KB, pre-breeding
Hisar	20	Leaf rust, drought, heat, adaptation
Pantnagar	20	Yellow rust, leaf rust, heat, KB, quality
Almora	10	Winter x spring
Pune	10	Stem rust, quality, heat, drought, pre-breeding
Vijapur	10	Heat, short duration, bold grain, quality
Total	200	

Experimental details

Design	: Augmented Block Design
Plot size	: 4 row plot of 2.5 m length spaced at 20cm apart
Fertilizer dose	: As recommended for the centre
Time of sowing	: NHZ / NWPZ / NEPZ (November 1-15); CZ / PZ (November 5-20);
Seed requirement	: 250g seed for each cross combination

Utilization Report: No. of cross combinations / plants selected (Selected / preferred traits).

INTERNATIONAL TRIALS & NURSERIES (2022-23)

CIMMYT

Trial /Nursery	Sets	Cooperating centres
43 nd ESWYT	15	Ludhiana, Hisar, Indore, Pantnagar, Jabalpur, Powarkheda, Niphad, Dharwad, Karnal, Delhi, Gwalior, Kanpur, RAU(Pusa), Vijapur, Parbhani
30 th HRWYT	2	Karnal, Shillongani
21 st HTWYT	21	Ludhiana, Hisar, Indore, Pune, Jabalpur, Vijapur, Karnal, Powarkheda, Bilaspur, Niphad, Dharwad, Ayodhya, Delhi, Durgapura, Varanasi, Kanpur, Udaipur, Junagadh, Wellington, Kalyani, Pusa (Bihar)
30 th SAWYT	19	Ludhiana, Hisar, Indore, Pantnagar, Jabalpur, Vijapur, Powarkheda, Bilaspur, Niphad, Dharwad, Ayodhya, Ranchi, Karnal, Delhi, Durgapura, Varanasi, Kanpur, Parbhani, CSSRI(Karnal)
10 th WYCYT	6	Ludhiana, Pantnagar, Dharwad, Karnal, Delhi, Malan
12 th SATYN	5	Ludhiana, Dharwad, Karnal, Delhi, Indore
4 th CWEN	3	Ludhiana, Delhi, Karnal
55 th IBWSN	19	Ludhiana, Hisar, Indore, Pantnagar, Ayodhya, Wellington, Karnal, Delhi, Durgapura, IARI-Pusa, Coochbehar, Varanasi, Jammu, Malan, Gwalior, Vijapur, Bilaspur, Kalyani, CSSRI(Karnal)
33 nd HRWSN	3	Wellington, Karnal, Shillongani
40 th SAWSN	18	Ludhiana, Pune, Hisar, Jabalpur, Powarkheda, Junagadh, Bilaspur, Niphad, Dharwad, Sabour, Ayodhya, Ranchi, Karnal, Delhi, Durgapura, Kanpur, RAU (Pusa), Vijapur
17 th STEMRSN	4	Karnal, Mahabaleshwar, Wellington, Delhi
14 th HLBSN	8	Karnal (2 set), Ayodhya, Varanasi, Sabour, Coochbehar, Delhi, RAU (Pusa)
24 th KBSN	5	Karnal (2 sets), Hisar, Ludhiana (2 sets), Pantnagar
3 rd IYPTE	5	Karnal, Ludhiana, Indore, Delhi, Vijapur
2 nd EDPIE	2	Pune, Karnal
54 th IDYN	8	Ludhiana, Pune, Niphad, Indore, Vijapur, Dharwad, Karnal, Hisar
54 th IDSN	5	Ludhiana, Pune, Niphad, Indore, Karnal

ICARDA Trials/Nurseries

SN	Trial /Nursery	Number of sets	Cooperating centres
1	23 rd ESBWYT	5	Karnal, Pantnagar, Kalyani, Jabalpur, Kanpur
2	23 rd SBWON-HT	5	Karnal, Hisar, Jammu Dharwad, Pune
3	46 th IDYT	4	Karnal, Indore, Vijapur, Dharwad
4	46 th IDON	1	Karnal

Drought and Heat tolerance screening nursery (DHTSN), 2022-23

Conducting centres

Zone	No.	Centres
NWPZ	2	Hisar, Karnal
NEPZ	2	RPCAUI-Pusa, Sabour
CZ	2	Junagadh, Indore
PZ	2	Pune, Dharwad
Total	8	

Contributing Centres: Indore, Niphad, Vijapur, Dharwad, Pune, IARI, Hisar, Ludhiana, Karnal

No. of Entries: 5 to 7 promising entries/ centre

Checks: C306, MP3288, K1317, DBW110, NI5439 **Registered Genetic Stocks:** WH730, DBW150

Experimental details

Design: Augmented/Alpha lattice

Plot size: 1.5m length x 3rows (spaced 20cm apart)

Agronomy: As per the package of practices

Seed requirement: 2kg.per entry

Observations to be recorded:

Agromorphological observations: Germination percentage, Days to heading, Days to anthesis, Days to maturity, Plant height (cm), Total biomass at harvest (g), Productive tillers of one full row length, Grain yield / plot (g), 1000-grain weight (g), Grain number/spike, Grain weight/spike.

Physiological parameters: Two recordings of NDVI (one month after sowing & 21 days after anthesis), Canopy temperature, Chlorophyll fluorescence and Chlorophyll content (15 days & 21 days after anthesis), respectively.