

Summary of Disease Data and Agronomic Characteristics

North Western Plains Zone

Trial: NIVT-1A-IR-TS-TAS, 2022-23

SN	Variety	Code	Disease Reaction				Agronomic Characteristics								
			YI	ACI	Br	ACI	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.	TGW.R	TGW.M
1	HD3447	N101	10S	2.2	10S	2.4	93-116	103	134-158	147	100-114	106	40	30-48	38
2	UBW18	N102	10S	2.2	20S	14.0	88-111	98	127-158	144	97-115	105	5	36-51	43
3	UP3121	N103	20S	10.0	10S	2.0	94-110	101	134-155	147	91-111	100	5	34-50	41
4	RAJ4577	N104	10S	2.0	TS	0.2	85-103	94	131-156	142	88-101	96	10	33-41	37
5	WH1316	N105	10S	2.2	0	0.0	88-106	96	127-155	143	94-106	99	0	32-49	40
6	PBW912	N106	0	0.0	5MS	0.8	96-117	104	136-158	148	103-112	107	20	30-41	34
7	JAUW711	N107	60S	12.0	20S	8.0	91-114	101	132-158	145	99-116	105	35	28-45	38
8	PBW910	N108	60MR	4.8	20S	6.2	93-107	98	134-156	145	90-108	98	5	30-50	43
9	DBW408	N109	20S	4.8	20S	7.2	86-114	94	126-156	142	98-110	105	15	32-49	42
10	RAJ4576	N110	10S	2.0	10S	5.2	90-111	98	130-155	144	97-116	104	25	33-47	41
11	HD3472	N111	5S	1.0	20S	8.6	92-115	102	134-158	146	99-112	103	10	33-53	43
12	WH1315	N113	0	0.0	10S	2.0	91-108	99	130-156	144	89-110	99	15	32-51	43
13	NWS2442	N114	5MS	1.0	10S	3.6	93-113	101	134-154	146	90-105	98	10	31-51	42
14	DBW411	N115	10MS	1.6	30S	8.2	92-113	101	134-155	145	95-110	101	5	29-49	40
15	BCW28	N116	5S	2.0	20S	8.2	90-195	112	132-156	143	89-113	101	20	29-44	39
16	PBW911	N117	10S	3.2	0	0.0	97-112	102	134-156	145	85-110	96	20	31-44	39
17	SVPWL21-15	N118	5MR	0.4	5S	2.0	96-113	102	136-155	146	100-115	108	55	30-43	37
18	HD3444	N119	40S	8.0	10S	6.0	90-109	95	132-155	143	95-110	101	30	29-48	41
19	NW8072	N120	5S	1.0	10S	3.0	89-106	96	127-155	143	92-111	101	5	30-45	39
20	K2201	N121	20S	5.2	30S	13.0	92-114	101	132-158	145	95-121	107	10	35-49	42
21	HUW854	N122	20S	7.8	10S	2.2	89-110	98	132-156	144	90-104	96	0	31-47	39
22	DBW410	N123	20S	4.2	20S	6.2	94-112	102	137-156	147	91-112	100	5	32-49	42
23	UP3123	N124	5S	1.0	20S	9.0	100-118	108	140-155	148	92-112	102	15	29-44	35
24	UP3122	N125	10S	2.0	10S	4.0	89-109	98	128-154	144	95-108	100	20	34-53	43
25	DBW409	N126	tS	0.2	10S	4.0	89-110	97	127-155	142	89-116	104	15	31-51	43
26	HD3446	N127	5MR	0.4	10S	4.0	93-114	103	133-155	145	89-118	103	25	29-46	41
27	DBW412	N130	5MR	0.4	20S	5.2	91-104	97	131-156	144	92-109	99	5	29-48	42
28	PBW909	N131	5S	3.0	5S	2.2	97-116	106	105-158	142	99-109	104	20	36-50	44
29	KRL2106	N132	10S	4.0	10S	2.2	100-114	108	140-155	148	95-120	108	35	29-43	36
30	PBW908	N133	5MR	0.4	10S	2.2	89-109	96	126-155	143	88-109	100	5	30-43	38
31	HD3445	N134	10S	2.0	10S	2.6	88-111	98	129-158	144	96-106	101	5	30-44	38
32	BRW3944	N135	10S	2.0	40S	10.6	91-110	99	132-157	146	97-113	103	0	35-49	43
33	RAJ4578	N136	10S	3.6	10S	3.0	84-102	93	130-154	143	90-108	99	15	29-40	36
34	HD3086(C)	N112	20S	4.0	60S	25.2	86-101	94	130-155	142	96-105	100	10	31-41	37
35	DBW187(C)	N128	10MS	2.6	10S	5.2	87-106	97	126-156	144	98-113	106	10	30-48	43
36	DBW222(C)	N129	20S	5.2	0	0.0	91-112	98	130-155	143	98-111	104	10	31-49	40

1. Ancillary data from Modipuram, Delhi, Durgapura, Gurdaspur, Hisar, Karnal, Ludhiana and Pantnagar centres.

2. Yellow rust data from Delhi, Gurdaspur, Hisar, Ludhiana and Pantnagar centres.

3. Brown rust data from Gurdaspur, Hisar, Karnal, Ludhiana and Pantnagar centres.

4. Lodging data from Delhi, Durgapura, Karnal, Ludhiana and Pantnagar centres.

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Individual Station Rust Data

SN	Variety	Code	Yellow Rust					Brown Rust				
			Ludhiana	Delhi	Gurdaspur	Hisar	Pantnagar	Karnal	Pantnagar	Hisar	Ludhiana	Gurdaspur
1	HD3447	N101	tS	0	10S	0	0	10R	0	0	10S	0
2	UBW18	N102	0	0	10S	0	tS	20S	20S	5S	20S	5S
3	UP3121	N103	10S	10S	20S	10S	0	10S	0	0	0	0
4	RAJ4577	N104	0	0	10S	0	0	0	0	tS	0	0
5	WH1316	N105	0	0	10S	tS	0	0	0	0	0	0
6	PBW912	N106	0	0	0	0	0	5MS	0	0	0	0
7	JAUW711	N107	0	0	60S	0	0	20S	10S	0	10S	0
8	PBW910	N108	0	0	60MR	0	0	20S	0	tS	10S	0
9	DBW408	N109	5MS	0	20S	0	0	10S	5S	tS	20S	0
10	RAJ4576	N110	0	0	10S	0	0	5S	5S	tS	10S	5S
11	HD3472	N111	0	0	5S	0	0	20S	10MS	0	10S	5S
12	WH1315	N113	0	0	0	0	0	10S	0	0	0	0
13	NWS2442	N114	5MS	0	0	0	tS	10MS	10s	0	0	0
14	DBW411	N115	0	0	10MS	0	0	30S	0	tS	10S	0
15	BCW28	N116	0	0	5S	5S	0	20S	tMS	0	20S	0
16	PBW911	N117	5S	0	10S	tS	0	0	0	0	0	0
17	SVPWL21-15	N118	0	0	5MR	0	0	5MS	0	tS	5S	0
18	HD3444	N119	0	0	40S	0	0	10S	5S	5S	10S	0
19	NW8072	N120	0	0	5S	0	0	5S	10S	0	0	0
20	K2201	N121	5S	0	20S	tS	0	20S	30S	0	5S	10S
21	HUW854	N122	10S	10MS	20S	tS	0	10S	tMS	0	0	0
22	DBW410	N123	0	0	20S	tS	0	20S	tMS	0	10S	0
23	UP3123	N124	0	0	5S	0	0	20S	5S	0	20S	0
24	UP3122	N125	0	0	10S	0	0	10S	10S	0	0	0
25	DBW409	N126	0	0	0	tS	0	10S	10S	0	0	0
26	HD3446	N127	0	0	5MR	0	0	10S	5S	0	5S	0
27	DBW412	N130	0	0	5MR	0	0	5S	tS	0	20S	0
28	PBW909	N131	5S	0	5S	5S	0	5S	tMS	0	5S	0
29	KRL2106	N132	10S	0	0	10S	0	tS	0	10S	0	0
30	PBW908	N133	0	0	5MR	0	0	0	0	tS	10S	0
31	HD3445	N134	0	0	10S	0	0	5MR	0	tS	10S	0
32	BRW3944	N135	0	0	10S	0	0	40S	10MS	0	5S	0
33	RAJ4578	N136	0	0	10MS	10S	0	5S	0	0	10S	0
34	HD3086(C)	N112	0	0	20S	0	0	40S	tS	5S	60S	20S
35	DBW187(C)	N128	5S	0	10MS	0	0	10S	0	tS	5S	0
36	DBW222(C)	N129	0	0	5S	20S	tS	0	0	0	0	0

Summary of Disease Data and Agronomic Characteristics

North Eastern Plains Zone

Trial: NIVT-1A-IR-TS-TAS, 2022-23

SN	Variety	Code	Disease Reaction		Agronomic Characteristics							
			Br	LB (HS, Av.)	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	TGW.R	TGW.M
1	HD3447	N101	0	56(35)	78-94	87	129-133	130	84-112	95	38-50	43
2	UBW18	N102	0	34(23)	69-93	82	124-131	127	82-111	94	33-50	42
3	UP3121	N103	0	35(13)	71-90	84	123-138	128	88-100	94	38-50	44
4	RAJ4577	N104	0	36(24)	70-90	82	121-131	126	79-101	91	37-53	43
5	WH1316	N105	0	67(45)	68-90	82	122-132	126	81-96	90	36-56	42
6	PBW912	N106	0	45(23)	74-92	84	120-135	127	82-105	93	33-52	43
7	JAUW711	N107	0	67(46)	75-91	84	121-131	127	92-101	95	34-52	42
8	PBW910	N108	5S	67(45)	67-91	83	123-135	127	82-96	90	34-52	42
9	DBW408	N109	5S	67(45)	70-91	81	122-133	126	79-105	93	37-52	44
10	RAJ4576	N110	0	56(34)	65-85	80	121-127	124	78-103	91	35-48	42
11	HD3472	N111	0	34(23)	81-91	88	122-138	131	86-102	96	34-49	41
12	WH1315	N113	0	45(34)	73-98	87	122-139	130	83-103	95	34-46	41
13	NWS2442	N114	0	57(45)	73-88	83	123-134	128	85-104	96	36-48	43
14	DBW411	N115	0	46(24)	79-89	85	124-136	128	76-106	89	32-48	40
15	BCW28	N116	0	35(23)	77-104	86	122-137	130	86-105	99	25-48	40
16	PBW911	N117	0	67(35)	70-89	82	121-130	126	84-94	90	31-51	42
17	SVPWL21-15	N118	0	56(34)	70-97	87	124-139	129	88-110	93	31-57	43
18	HD3444	N119	0	34(12)	79-90	85	123-137	128	82-103	95	34-56	44
19	NW8072	N120	0	46(34)	65-91	81	123-129	126	88-102	95	29-48	40
20	K2201	N121	0	48(36)	68-90	84	123-135	128	86-105	93	34-51	42
21	HUW854	N122	0	34(34)	71-90	82	124-132	127	84-102	91	36-47	42
22	DBW410	N123	0	34(23)	72-91	85	126-131	129	87-104	95	37-44	41
23	UP3123	N124	0	46(34)	67-93	84	122-134	128	83-105	95	30-52	43
24	UP3122	N125	0	56(34)	70-98	85	124-138	128	83-97	91	34-48	42
25	DBW409	N126	0	78(56)	69-87	81	123-128	125	85-100	95	34-42	40
26	HD3446	N127	0	35(34)	73-91	84	124-133	128	82-100	92	36-47	42
27	DBW412	N130	0	56(35)	70-92	84	122-135	127	76-101	93	28-48	42
28	PBW909	N131	5S	45(23)	70-93	84	124-133	129	83-105	90	32-47	41
29	KRL2106	N132	0	67(45)	73-96	85	123-135	129	83-101	93	34-55	43
30	PBW908	N133	0	56(34)	75-90	84	121-138	128	85-99	92	37-50	43
31	HD3445	N134	0	56(34)	68-97	84	122-136	128	80-102	92	36-48	41
32	BRW3944	N135	0	56(34)	65-90	83	121-133	127	83-101	92	36-51	43
33	RAJ4578	N136	0	35(23)	72-91	82	121-133	127	87-103	92	36-52	43
34	HD3086 (C)	N112	40S	46(24)	70-92	83	124-133	128	87-100	93	38-49	44
35	DBW187 (C)	N128	0	67(35)	78-92	84	123-132	127	87-101	95	38-47	43
36	DBW222 (C)	N129	0	46(23)	68-90	82	121-134	126	90-104	96	36-46	41

1. Ancillary data from Ayodhya, Sabour, Coochbehar, Kanpur, Ranchi and Varanasi centres.

2. Leaf blight data from Ayodhya, Sabour and Coochbehar centres.

3. Brown rust data from Kanpur centre.

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North Eastern Plains Zone

Individual Station Disease Data

SN	Variety	Code	Leaf Blight		
			Ayodhya	Sabour	Coochbehar
1	HD3447	N101	12	46	56
2	UBW18	N102	12	34	34
3	UP3121	N103	01	35	12
4	RAJ4577	N104	23	36	23
5	WH1316	N105	12	46	67
6	PBW912	N106	01	34	45
7	JAUW711	N107	24	46	67
8	PBW910	N108	23	35	67
9	DBW408	N109	12	45	67
10	RAJ4576	N110	12	35	56
11	HD3472	N111	12	34	13
12	WH1315	N113	23	34	45
13	NWS2442	N114	24	57	45
14	DBW411	N115	12	46	13
15	BCW28	N116	01	35	23
16	PBW911	N117	01	47	67
17	SVPWL21-15	N118	12	56	45
18	HD3444	N119	12	34	0
19	NW8072	N120	01	46	45
20	K2201	N121	23	36	48
21	HUW854	N122	24	34	34
22	DBW410	N123	01	34	34
23	UP3123	N124	12	46	35
24	UP3122	N125	01	34	56
25	DBW409	N126	34	45	78
26	HD3446	N127	34	35	23
27	DBW412	N130	12	46	56
28	PBW909	N131	01	45	34
29	KRL2106	N132	12	46	67
30	PBW908	N133	12	56	23
31	HD3445	N134	23	34	56
32	BRW3944	N135	23	56	34
33	RAJ4578	N136	12	35	23
34	HD3086 (C)	N112	01	46	34
35	DBW187 (C)	N128	01	46	67
36	DBW222 (C)	N129	12	46	0

Summary of Disease Data and Agronomic Characteristics

North Western Plains Zone

Trial: NIVT-1B-IR-TS-TAS, 2022-23

SN	Variety	Code	Disease Reaction				Agronomic Characteristics								
			YI	ACI	Br	ACI	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.	TGW.R	TGW.M
1	K2204	N201	20S	8.8	0	0	83-105	96	134-156	141	94-108	101	10	30-49	39
2	BCW29	N202	10S	3.0	20S	6.3	90-111	101	134-157	143	98-114	106	20	29-44	38
3	PBW916	N203	5MR	0.4	20S	6.3	90-112	101	135-155	144	94-115	106	10	36-49	44
4	JKW305	N204	20S	9.0	40S	12.5	86-100	95	133-154	141	95-112	102	10	30-47	39
5	HD3467	N205	5S	1.0	20S	8.8	94-116	103	137-158	145	86-112	100	20	29-41	37
6	DBW414	N206	10S	3.0	20S	5.0	85-106	97	136-155	144	101-122	110	10	30-50	40
7	NW8073	N207	5S	1.04	20S	7.5	93-113	102	137-156	144	90-109	101	0	29-39	35
8	BRW3946	N208	60S	20.0	20S	12.5	89-109	99	137-155	143	95-115	105	10	29-47	39
9	PBW915	N209	5MR	0.4	0	0	95-116	104	137-158	145	98-112	104	10	29-44	37
10	SVPWL21-07	N210	5S	1.4	10S	2.5	86-112	100	134-157	143	90-124	107	0	30-50	42
11	WH1318	N211	5MR	0.4	20S	5.0	85-103	96	134-157	143	95-113	102	0	29-47	41
12	PBW914	N212	10S	4.4	0	0.0	92-109	100	136-155	143	74-102	94	0	30-50	41
13	UBW19	N213	0	0	40S	23.8	84-107	97	134-157	142	83-111	101	20	28-42	35
14	HD3448	N214	10S	2.0	5MS	1.0	81-104	95	132-155	141	90-113	101	10	26-42	36
15	PBW917	N215	10MR	1.0	20S	6.3	89-105	98	135-155	143	90-109	99	10	35-49	41
16	BRW3942	N216	10MR	1.0	30S	10.3	83-101	95	135-156	143	98-122	109	0	33-51	42
17	DBW415	N217	40S	12.0	5S	1.6	89-102	97	136-154	142	88-98	93	25	28-47	37
18	HUW855	N218	20S	7.0	10S	4.8	80-105	95	132-155	141	85-114	104	10	28-46	38
19	DBW417	N219	10S	3.0	10S	3.8	85-109	98	135-158	143	95-117	106	10	31-51	40
20	NWS2216	N220	10S	3.0	5S	1.3	85-105	96	131-155	142	93-116	106	10	31-52	43
21	PBW913	N221	5S	1.0	10S	6.3	87-108	99	136-156	144	96-115	105	10	29-42	37
22	HD3449	N222	10S	2.0	5S	1.3	88-108	99	135-156	143	85-122	105	10	29-47	40
23	HP1979	N224	5MR	0.4	0	0	95-117	104	139-155	146	88-106	98	0	32-42	37
24	NW8075	N225	5S	2.0	20S	6.5	94-113	102	137-157	146	90-111	101	40	29-42	36
25	UP3132	N226	5MR	0.6	10S	2.5	86-111	99	134-155	142	91-114	103	10	35-52	42
26	HP1978	N227	10S	2.0	20S	7.0	91-113	103	135-158	145	99-117	107	0	30-47	38
27	K2203	N228	10S	3.2	0	0	89-109	101	135-158	143	87-109	99	0	28-44	37
28	UP3125	N229	5S	1.0	5S	1.3	85-108	97	133-156	141	90-116	102	0	29-45	38
29	DBW413	N230	10S	2.0	20S	12.5	88-103	97	136-155	143	97-113	105	0	28-49	42
30	WH1317	N231	5S	1.4	10S	3.8	82-98	94	132-156	140	92-108	102	0	29-41	37
31	UP3124	N232	20S	8.0	20S	12.5	88-110	100	133-157	143	98-130	112	20	32-50	42
32	DBW416	N233	40S	8.0	5S	2.8	87-106	98	132-156	143	95-111	106	20	27-45	37
33	RAJ4579	N234	20S	5.0	20S	6.3	88-107	98	131-156	142	97-115	104	10	28-49	40
34	DBW187(C)	N223	10S	2.0	10S	2.8	84-108	97	131-156	141	100-114	107	15	32-48	40
35	DBW222(C)	N235	20S	12.0	10MS	2.0	84-106	98	136-156	143	99-116	106	0	32-45	38
36	HD3086(C)	N236	20S	4.0	60S	45.0	83-103	95	132-155	141	89-110	98	0	30-40	36

1. Ancillary data from Delhi, Ludhiana, Durgapura, Gurdaspur, Hisar, Karnal and Bulandshahr.

2. Yellow rust data from Delhi, Ludhiana, Gurdaspur, Hisar and Karnal.

3. Brown rust data from Karnal, Gurdaspur, Hisar and Ludhiana.

4. Lodging data from Ludhiana, Durgapura, Delhi and Karnal centres.

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North Western Plains Zone

Individual Station Rust Data

SN	Variety	Code	Yellow Rust					Brown Rust			
			Ludhiana	Delhi	Karnal	Gurdaspur	Hisar	Karnal	Gurdaspur	Hisar	Ludhiana
1	K2204	N201	5MS	0	0	20S	20S	0	0	0	0
2	BCW29	N202	0	0	0	10S	5S	20S	5S	0	0
3	PBW916	N203	0	0	0	5MR	0	20S	0	0	5S
4	JKW305	N204	5S	0	0	20S	20S	40S	0	5S	5S
5	HD3467	N205	0	0	0	5S	0	20S	5S	0	10S
6	DBW414	N206	5S	0	0	10S	0	20S	0	0	0
7	NW8073	N207	5S	0	0	tR	0	20S	0	0	10S
8	BRW3946	N208	0	10S	0	60S	30S	20S	0	10S	20S
9	PBW915	N209	0	0	0	5MR	0	0	0	0	0
10	SVPWL21-07	N210	5MR	0	0	5S	0	0	10S	0	0
11	WH1318	N211	0	0	0	5MR	0	20S	0	0	0
12	PBW914	N212	5MR	5S	0	10S	5S	0	0	0	0
13	UBW19	N213	0	0	0	0	0	40S	10S	5S	40S
14	HD3448	N214	0	0	0	10S	0	5MS	0	0	0
15	PBW917	N215	0	0	0	10MR	tS	20S	5S	0	0
16	BRW3942	N216	0	0	0	10MR	tS	30S	0	tS	10S
17	DBW415	N217	20S	0	0	40S	0	tR	0	tS	5S
18	HUW855	N218	10S	5S	0	20S	0	10MS	0	tS	10S
19	DBW417	N219	0	0	5S	10S	0	10S	5S	0	0
20	NWS2216	N220	5S	0	0	10S	0	0S	0	0	5S
21	PBW913	N221	0	0	0	5S	0	10S	5S	0	10S
22	HD3449	N222	0	0	0	10S	0	0	0	5S	0
23	HP1979	N224	0	0	0	5MR	0	0	0	0	0
24	NW8075	N225	5S	0	0	5S	0	20S	0	tS	5S
25	UP3132	N226	0	0	0	5MR	tS	10S	0	0	0
26	HP1978	N227	0	0	0	10S	0	10MS	20S	0	0
27	K2203	N228	5S	0	0	10S	tS	0	0	0	0
28	UP3125	N229	0	0	0	5S	0	0	0	5S	0
29	DBW413	N230	0	0	0	10S	0	20S	10S	10S	10S
30	WH1317	N231	5MR	0	0	5S	0	10S	0	0	5S
31	UP3124	N232	0	0	0	20S	20S	20S	10S	0	20S
32	DBW416	N233	0	0	0	40S	0	5S	0	tS	5S
33	RAJ4579	N234	5S	0	0	20S	0	20S	0	0	5S
34	DBW187 (C)	N223	0	0	0	10S	0	10S	0	tS	0
35	DBW222 (C)	N235	5S	5S	0	20S	30S	10MS	0	0	0
36	HD3086 (C)	N236	0	0	0	20S	0	40S	40S	40S	60S

Summary of Disease Data and Agronomic Characteristics

North Eastern Plains Zone

Trial: NIVT-1B-IR-TS-TAS, 2022-23

SN	Variety	Code	Disease Reaction		Agronomic Characteristics							
			Br	LB (HS, Av)	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	TGW.R	TGW.M
1	K2204	N201	0	46 (35)	71-86	80	111-130	123	84-95	89	34-50	42
2	BCW29	N202	0	35 (24)	76-91	85	112-130	125	83-106	95	34-46	40
3	PBW916	N203	0	45 (34)	80-92	88	126-135	130	86-106	93	38-52	45
4	JKW305	N204	5S	58 (46)	74-85	80	112-128	123	86-105	91	32-46	39
5	HD3467	N205	0	34 (24)	78-93	88	124-134	130	78-103	91	27-49	38
6	DBW414	N206	5S	56 (24)	67-90	83	119-132	128	75-112	93	34-57	42
7	NW8073	N207	0	34 (23)	76-89	85	123-135	128	80-105	91	28-51	39
8	BRW3946	N208	0	47 (35)	70-93	86	108-134	127	89-111	97	35-51	41
9	PBW915	N209	0	58 (45)	79-93	89	112-135	129	90-112	97	33-45	39
10	SVPWL21-07	N210	0	47 (35)	67-91	84	115-134	126	93-105	98	33-51	42
11	WH1318	N211	0	46 (34)	71-86	81	112-130	123	87-100	92	35-53	42
12	PBW914	N212	0	47 (35)	71-91	84	113-132	126	82-94	90	33-51	41
13	UBW19	N213	20S	58 (46)	75-87	83	116-129	124	81-100	89	29-44	37
14	HD3448	N214	0	68 (45)	76-85	82	108-131	123	88-99	92	33-46	38
15	PBW917	N215	0	58 (35)	70-88	82	112-130	124	79-100	89	32-52	42
16	BRW3942	N216	0	46 (24)	69-87	82	117-129	124	90-106	98	38-49	44
17	DBW415	N217	0	57 (35)	74-86	82	120-130	126	82-90	84	33-48	42
18	HUW855	N218	0	68 (46)	69-84	77	108-126	121	84-107	92	34-46	39
19	DBW417	N219	0	45 (34)	74-90	85	118-137	128	88-106	93	40-58	45
20	NWS2216	N220	0	57 (35)	73-85	80	109-130	123	86-105	95	40-59	46
21	PBW913	N221	0	58 (46)	69-89	83	116-133	125	83-106	91	29-47	39
22	HD3449	N222	0	35 (25)	72-90	84	119-130	125	86-108	93	37-46	41
23	HP1979	N224	0	46 (24)	81-98	91	125-139	132	86-93	90	28-43	35
24	NW8075	N225	0	46 (35)	78-92	88	120-137	130	82-107	95	32-45	38
25	UP3132	N226	0	47 (35)	76-90	84	106-132	124	85-104	92	38-52	44
26	HP1978	N227	0	35 (24)	78-92	87	114-132	127	89-103	95	35-51	42
27	K2203	N228	0	47 (36)	73-91	84	117-133	126	80-93	85	33-47	40
28	UP3125	N229	0	68 (45)	75-87	82	115-129	124	89-100	93	32-47	39
29	DBW413	N230	5S	46 (35)	74-86	82	105-130	123	81-105	93	36-47	42
30	WH1317	N231	5S	45 (24)	68-86	80	109-128	123	71-99	88	34-48	41
31	UP3124	N232	0	35 (24)	73-90	84	118-131	125	95-116	104	39-54	44
32	DBW416	N233	0	46 (35)	71-89	83	102-129	123	86-104	93	33-49	40
33	RAJ4579	N234	0	46 (35)	74-91	85	112-134	126	89-110	95	28-47	37
34	DBW187(C)	N223	0	68 (35)	73-87	83	105-130	123	85-107	96	38-48	43
35	DBW222(C)	N235	0	34 (24)	69-87	81	118-129	125	83-109	94	36-49	39
36	HD3086(C)	N236	40S	79 (45)	66-85	80	110-131	123	79-103	91	35-45	40

1. Ancillary data from Kanpur, Ayodhya, Varanasi, Kalyani, Ranchi and Sabour centres.
2. Leaf blight data from Ayodhya, Kalyani and Sabour.
3. Brown rust data from Kanpur centre only

NIVT-1B-IR-TS-TAS, 2022-23
North Eastern Plains Zone

Individual Station Leaf Blight data

SN	Variety	Code	Leaf Blight		
			Ayodhya	Kalyani	Sabour
1	K2204	N201	12	36	46
2	BCW29	N202	12	24	35
3	PBW916	N203	23	23	45
4	JKW305	N204	23	58	46
5	HD3467	N205	23	24	34
6	DBW414	N206	12	13	56
7	NW8073	N207	12	24	34
8	BRW3946	N208	23	47	46
9	PBW915	N209	12	58	56
10	SVPWL21-07	N210	23	47	46
11	WH1318	N211	12	46	45
12	PBW914	N212	12	47	46
13	UBW19	N213	23	58	46
14	HD3448	N214	12	68	46
15	PBW917	N215	23	58	35
16	BRW3942	N216	12	24	46
17	DBW415	N217	23	57	35
18	HUW855	N218	24	68	45
19	DBW417	N219	23	24	45
20	NWS2216	N220	12	57	36
21	PBW913	N221	12	58	57
22	HD3449	N222	24	25	35
23	HP1979	N224	12	25	46
24	NW8075	N225	12	36	46
25	UP3132	N226	23	25	47
26	HP1978	N227	12	35	35
27	K2203	N228	24	36	47
28	UP3125	N229	22	68	36
29	DBW413	N230	24	36	46
30	WH1317	N231	12	25	45
31	UP3124	N232	12	24	35
32	DBW416	N233	23	25	46
33	RAJ4579	N234	24	36	46
34	DBW187 (C)	N223	12	68	34
35	DBW222 (C)	N235	12	25	34
36	HD3086 (C)	N236	12	79	35

Summary of Disease Data and Agronomic Characteristics

Central Zone

Trial: NIVT-2-IR-TS-TAS, 2022-23

SN	Variety	Code	Disease	Agronomic Characteristics								
			Bl.	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod	TGW.R	TGW.M
1.	GW549	N301	0	59-83	71	103-140	124	83-107	94	60	37-54	42
2.	PWU16	N302	0	49.5-	65	105-138	122	80-105	89	50	40-57	46
3.	MACS6844	N303	0	61-88	76	107-138	125	87-110	98	0	28-46	38
4.	GW555	N304	tR	49-78	65	106-138	123	72-97	84	30	36-57	44
5.	MACS6842	N305	0	57-84	69	106-139	123	92-113	101	28	39-61	47
6.	UAS3026	N306	tMS	57-85	70	105-137	124	90-112	100	63	39-47	42
7.	BW18R6016	N307	0	57-81	69	106-141	123	87-107	97	30	39-54	45
8.	NIAW4364	N308	tMS	63-92	79	111-140	127	91-113	102	70	30-55	40
9.	PBN16-1766	N309	tMR	63-90	78	108-139	126	89-114	99	83	30-50	38
10.	HD3451	N310	0	54-86	69	107-136	123	78-104	87	0	35-49	39
11.	RAJ4582	N311	tR	58-90	74	104-140	125	85-109	94	68	35-54	44
12.	NIAW4440	N312	0	54-89	73	108-139	125	76-110	96	23	34-55	44
13.	GW550	N313	0	52-84	68	105-141	122	78-100	88	0	40-47	43
14.	HI1683	N314	0	51-79	65	103-141	122	84-108	93	55	42-55	48
15.	MP3570	N315	tMR	52-86	69	107-139	123	76-106	93	3	41-54	46
16.	CG1045	N316	10MR	57-88	73	103-141	124	83-111	95	0	39-58	46
17.	MP3573	N318	0	51-80	67	103-138	122	73-106	85	5	35-48	41
18.	LOK80	N319	tR	45-77	61	101-141	122	79-112	96	88	45-61	52
19.	UAS3025	N320	0	54-83	69	104-140	123	83-107	96	5	35-49	43
20.	GW554	N321	0	44-79	62	101-135	120	76-102	89	83	43-56	49
21.	HI1684	N323	tR	46-78	62	103-135	120	78-107	94	90	37-50	43
22.	MP1393	N324	0	57-85	71	107-137	123	85-108	95	8	35-50	41
23.	DBW419	N325	5MR	55-84	70	103-142	124	80-106	90	0	35-51	42
24.	HD3450	N326	tMR	52-80	67	103-138	122	90-112	102	63	37-48	43
25.	MP1392	N327	0	49-78	63	102-138	122	75-103	90	13	37-50	44
26.	NWS2170	N328	tMR	52-80	66	104-136	122	88-115	102	83	42-63	48
27.	MACS6826	N329	0	56-90	74	106-139	124	85-106	92	8	35-48	42
28.	DBW418	N330	0	58-88	73	106-141	126	88-110	96	35	38-56	45
29.	PBW918	N331	0	52-80	65	109-137	122	80-100	88	0	33-49	40
30.	MACS6837	N332	0	55-90	71	105-143	123	77-105	92	15	39-56	45
31.	AKAW5347	N334	0	53-85	71	106-143	123	88-111	100	33	35-55	42
32.	PWU20	N335	0	51-81	65	109-139	124	77-108	90	43	36-55	43
33.	GW548	N336	0	51-81	68	105-138	123	81-99	89	83	36-51	43
34.	MACS6222(C)	N317	0	56-89	72	106-142	124	83-103	94	45	37-53	44
35.	GW322(C)	N322	0	56-80	67	106-140	122	78-104	92	48	33-52	42
36.	DBW187(C)	N333	0	54-85	70	104-137	123	84-116	99	63	37-52	46

1. Ancillary data from Powarkheda, Bilaspur, Gwalior, Indore, Junagarh, Sagar, SK Nagar, Udaipur and Vijapur
2. Black rust data from Vijapur centre
3. Lodging data from SK Nagar

Summary of Agronomic Characteristics

Peninsular Zone

Trial: NIVT-2-IR-TS-TAS, 2022-23

SN	Variety	Code	Agronomic Characteristics								
			Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.	TGW.R	TGW.M
1.	GW549	N301	49-63	58	98-112	105	77-93	86	0	33-44	39
2.	PWU16	N302	52-55	53	97-112	104	72-88	83	0	37-48	45
3.	MACS6844	N303	63-71	67	97-115	109	85-95	90	0	37-47	42
4.	GW555	N304	52-55	54	96-119	107	70-79	74	0	36-46	43
5.	MACS6842	N305	59-70	64	100-114	111	90-99	95	0	42-52	46
6.	UAS3026	N306	61-67	64	98-116	110	83-99	94	0	37-50	42
7.	BW18R6016	N307	59-65	63	98-118	111	82-95	89	0	42-46	45
8.	NIAW4364	N308	46-70	60	99-115	108	83-99	92	0	30-45	38
9.	PBN16-1766	N309	65-69	67	98-116	111	85-96	92	0	36-39	38
10.	HD3451	N310	56-66	60	98-119	110	65-83	75	0	36-39	38
11.	RAJ4582	N311	63-74	68	103-115	112	80-94	86	0	38-48	43
12.	NIAW4440	N312	61-70	66	98-116	111	72-91	82	0	40-53	45
13.	GW550	N313	56-59	57	99-111	105	64-85	79	0	36-47	43
14.	HI1683	N314	54-62	57	98-111	106	81-90	87	0	42-53	48
15.	MP3570	N315	57-65	60	97-115	107	71-93	79	0	45-54	47
16.	CG1045	N316	57-62	61	100-113	107	77-93	87	0	41-49	46
17.	MP3573	N318	52-57	55	98-109	103	61-84	71	0	33-39	37
18.	LOK80	N319	49-56	52	98-108	103	84-90	88	50	45-52	48
19.	UAS3025	N320	56-65	59	99-116	108	73-96	86	0	38-48	42
20.	GW554	N321	50-54	52	98-120	109	73-82	80	0	42-48	46
21.	HI1684	N323	49-54	52	98-106	104	75-86	82	0	37-42	40
22.	MP1393	N324	60-65	63	101-114	108	81-95	90	0	39-46	42
23.	DBW419	N325	55-65	59	99-108	105	77-92	85	10	36-50	41
24.	HD3450	N326	56-58	57	99-110	105	86-96	93	75	37-46	42
25.	MP1392	N327	50-54	53	97-110	104	73-87	80	0	42-46	44
26.	NWS2170	N328	55-57	56	98-111	105	76-95	88	40	36-49	45
27.	MACS6826	N329	57-66	60	99-118	110	71-88	83	0	35-43	38
28.	DBW418	N330	56-65	61	99-113	110	82-94	86	0	41-48	43
29.	PBW918	N331	56-58	57	99-114	109	76-87	83	0	36-42	39
30.	MACS6837	N332	58-66	61	99-115	107	80-92	85	0	41-48	44
31.	AKAW5347	N334	55-62	58	101-121	110	81-94	89	0	38-44	42
32.	PWU20	N335	55-58	57	96-121	111	68-95	79	0	27-46	42
33.	GW548	N336	55-59	57	97-110	105	74-85	79	0	38-45	43
34.	MACS6222(C)	N317	55-65	60	99-111	105	78-93	87	5	36-44	42
35.	GW322(C)	N322	57-62	59	98-116	107	76-88	85	0	36-45	38
36.	DBW187(C)	N333	57-64	60	99-111	107	79-92	84	0	41-46	44

1. Ancillary data from Pune, Niphad, Dharwad, Dhule, Nippani and Parbhani centers
2. Lodging data from Pune center

Summary of Disease Data and Agronomic Characteristics

North Western Plains Zone

Trial: NIVT-3A-IR-LS-TAS, 2022-23

SN	Variety	Code	Disease Reaction				Agronomic Characteristics									
			YI	ACI	Br	ACI	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.M	TGW.R	TGW.M	
1	PBW923	N 401	5S	1.5	0	0.0	74-90	83	111-140	125	76-112	91	15	27-42	34	
2	SVPWL21-14	N 402	20S	3.6	10S	3.0	81-94	88	112-141	128	89-110	100	10	29-47	36	
3	PBW920	N 403	5S	0.7	5MS	0.8	75-91	83	114-141	126	89-105	94	20	35-42	38	
4	NW8071	N 404	20S	4.9	20S	4.0	74-91	83	110-139	125	77-95	88	5	37-43	40	
5	PBW919	N 405	0	0.0	0	0.0	74-87	81	109-139	124	64-92	82	5	26-43	38	
6	HD3452	N 406	60S	14.4	0	0.0	72-89	83	117-140	126	85-110	99	15	36-40	38	
7	NW8055	N 407	60S	28.6	10S	2.0	79-96	87	111-140	127	78-103	93	15	32-44	37	
8	RAJ4581	N 408	40S	10.1	0	0.0	70-88	79	110-139	124	84-106	94	20	31-49	41	
9	DBW420	N 409	5S	1.4	5S	2.2	75-91	85	109-141	126	85-102	96	15	33-45	39	
10	WH1323	N 410	10S	2.4	10S	4.0	73-91	84	111-141	125	86-103	95	10	33-45	40	
11	HP1980	N 411	5S	1.4	0	0.0	82-95	88	112-141	126	86-104	95	20	36-46	41	
12	UBW20	N 412	10S	4.6	20S	6.8	83-93	88	115-140	127	81-102	91	10	30-45	36	
13	DBW424	N 413	5S	0.7	0	0.0	77-96	87	113-141	127	85-99	90	20	31-43	40	
14	BCW30	N 414	40S	7.9	10S	3.0	96-92	86	116-140	126	82-103	94	20	32-47	38	
15	UP3126	N 415	40S	8.6	10S	5.6	96-91	84	117-140	125	90-105	96	15	30-47	37	
16	WH1322	N 416	20S	6.9	10S	2.0	79-91	85	111-140	125	81-96	90	5	35-45	41	
17	DBW423	N 417	20S	8.6	tMS	0.2	72-91	84	109-140	126	94-108	101	35	31-46	40	
18	DBW422	N 418	5MS	1.3	20S	4.0	72-93	82	117-139	127	85-97	91	5	33-43	39	
19	K2207	N 419	60S	12.9	0	0.0	71-91	81	110-139	124	77-101	89	10	28-45	40	
20	BRW3941	N 420	40S	16.3	0	0.0	81-95	87	112-141	128	86-109	97	20	32-44	38	
21	DBW421	N 421	20S	6.6	30S	13.8	72-86	81	109-139	124	86-109	99	25	32-44	35	
22	HD3453	N 422	5S	1.4	5S	1.0	74-96	86	110-141	126	82-105	94	15	35-54	40	
23	JKW303	N 423	20S	5.0	40S	14.8	78-94	87	109-140	125	78-102	91	20	27-45	33	
24	HD3454	N 425	0	0.0	20S	5.0	79-93	85	111-141	126	84-105	94	15	30-42	35	
25	PBW922	N 426	5S	0.7	0	0.0	72-88	81	115-139	124	75-95	86	5	30-43	36	
26	PBW921	N 428	0	0.0	0	0.0	77-89	84	112-141	125	81-95	86	10	30-45	36	
27	K2208	N 429	10S	3.6	0	0.0	72-91	83	109-140	125	82-95	89	15	35-45	41	
28	RAJ4580	N 431	5S	1.4	20S	5.8	80-94	87	118-141	126	87-112	99	15	33-42	39	
29	WH1324	N 433	10S	2.7	0	0.0	71-91	84	117-140	125	89-104	97	10	35-43	41	
30	K2206	N 434	20S	5.7	0	0.0	81-98	88	119-141	126	83-113	100	25	25-48	34	
31	HD3455	N 435	10S	2.9	0	0.0	74-91	84	113-141	126	85-104	93	20	29-43	37	
32	UP3127	N 436	10S	2.9	0	0.0	79-94	86	114-141	126	82-101	94	15	35-44	40	
33	DBW107(C)	N 424	60S	15.0	20S	10.0	71-88	81	114-141	124	78-101	91	15	31-44	36	
34	HD3059(C)	N 427	40S	12.9	5S	1.0	78-96	86	110-141	126	86-102	94	20	31-45	36	
35	DBW173(C)	N 430	10S	3.4	0	0.0	80-97	88	109-141	127	78-105	95	20	35-43	37	
36	HI1563(C)	N 432	60S	40.0	30S	10.0	70-91	80	109-141	124	82-102	93	20	29-43	36	

1. Ancillary data from Delhi, Durgapura, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana and Pantnagar centres. 2. Yellow rust data from Delhi, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana and Pantnagar centres.
3. Brown rust data from Gurdaspur, Jammu, Karnal, Ludhiana and Pantnagar centres. 4. Lodging data from Delhi, Hisar, Jammu, Karnal, Ludhiana and Pantnagar centres.

NIVT-3A-IR-LS-TAS, 2022-23
North Western Plains Zone

Individual Station Rust Data

SN	Variety	Code	Yellow rust							Brown rust				
			Delhi	Gurdaspur	Hisar	Jammu	Karnal	Ludhiana	Pantnagar	Gurdaspur	Jammu	Karnal	Ludhiana	Pantnagar
1	PBW923	N 401	0	tR	tS	5MS	0	5S	0	0	0	0	0	0
2	SVPWL21-14	N 402	0	5S	0	20S	0	0	0	0	0	10S	tR	5S
3	PBW920	N 403	0	5S	0	0	0	0	0	0	0	5MS	0	0
4	NW8071	N 404	0	tR	0	5S	5MS	20S	5S	0	0	0	0	20S
5	PBW919	N 405	0	0	0	0	0	0	0	0	0	0	0	0
6	HD3452	N 406	0	0	tS	60S	0	40S	0	0	0	0	0	0
7	NW8055	N 407	0	20S	20S	40S	20S	60S	40S	0	0	10S	0	0
8	RAJ4581	N 408	0	40S	tS	10S	0	20S	0	0	0	0	0	0
9	DBW420	N 409	0	5S	0	0	0	5S	0	0	5S	0	5S	tMS
10	WH1323	N 410	0	10S	0	5S	0	TS	tS	0	5S	10S	5S	0
11	HP1980	N 411	0	5MR	0	0	0	5S	tS	0	0	0	0	0
12	UBW20	N 412	5MS	10S	0	5MS	0	10S	5MS	0	0	20S	10S	5MS
13	DBW424	N 413	0	0	0	0	0	5S	0	0	0	0	0	0
14	BCW30	N 414	0	5S	0	5S	0	40S	5S	0	0	10S	0	5S
15	UP3126	N 415	0	40S	0	10S	0	10S	0	0	5S	10S	10MS	5S
16	WH1322	N 416	5MS	10S	0	10S	0	20S	5MS	0	0	10S	0	0
17	DBW423	N 417	0	40S	0	tR	0	20S	0	0	0	0	0	tMS
18	DBW422	N 418	0	0	0	5MS	0	10MR	tS	0	0	20S	0	0
19	K2207	N 419	0	20S	0	60S	5MS	5S	tS	0	0	0	0	0
20	BRW3941	N 420	5MS	20S	0	40S	0	40S	10S	0	0	0	0	0
21	DBW421	N 421	0	20S	0	5S	0	20S	ts	5MS	10S	30S	5S	20S
22	HD3453	N 422	0	0	0	5S	0	5S	0	0	5S	0	0	0
23	JKW303	N 423	0	10S	0	0	0	20S	5S	0	5MS	40S	10S	20S
24	HD3454	N 425	0	0	0	0	0	0	0	0	0	20S	5S	0
25	PBW922	N 426	0	0	0	5S	0	0	0	0	0	0	0	0
26	PBW921	N 428	0	0	0	0	0	0	0	0	0	0	0	0
27	K2208	N 429	0	0	0	10S	0	10S	5S	0	0	0	0	0
28	RAJ4580	N 431	0	5S	0	5S	0	0	0	0	0	20S	5S	5MS
29	WH1324	N 433	0	5MS	tS	5MS	0	10S	0	0	0	0	0	0
30	K2206	N 434	0	10S	0	10MS	0	20S	tS	0	0	0	0	0
31	HD3455	N 435	0	5S	5S	0	0	10S	0	0	0	0	0	0
32	UP3127	N 436	0	5S	0	5S	0	10S	0	0	0	0	0	0
33	DBW107(C)	N 424	0	0	0	60S	0	40S	5S	0	0	20S	10S	20S
34	HD3059 (C)	N 427	0	20S	0	10S	0	40S	20S	0	0	0	0	5S
35	DBW173(C)	N 430	0	10S	0	0	0	10S	5MS	0	0	0	0	0
36	HI1563(C)	N 432	20S	60S	20S	60S	0	60S	60S	0	0	30S	20S	0

Summary of Disease Data and Agronomic Characteristics

North Eastern Plains Zone

Trial: NIVT-3A-IR-LS-TAS, 2022-23

SN	Variety	Code	Disease Reaction	Agronomic Characteristics							
			LB (HS, Av)	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	TGW.R	TGW.M
1	PBW923	N 401	68(35)	56-77	68	90-118	105	77-99	86	28-41	32
2	SVPWL21-14	N 402	46(25)	63-80	73	96-120	110	81-100	90	28-42	34
3	PBW920	N 403	46(34)	57-79	69	91-121	110	79-92	87	26-43	36
4	NW8071	N 404	57(35)	61-80	70	95-120	109	73-109	87	30-45	37
5	PBW919	N 405	57(34)	59-79	69	99-121	109	57-96	74	32-41	36
6	HD3452	N 406	46(34)	58-76	68	91-116	106	56-101	87	28-41	35
7	NW8055	N 407	46(35)	63-80	72	95-122	110	84-97	89	28-40	35
8	RAJ4581	N 408	46(35)	53-71	65	89-115	104	82-98	90	31-43	37
9	DBW420	N 409	46(35)	57-78	68	89-116	106	74-100	88	32-47	37
10	WH1323	N 410	57(34)	57-77	68	90-116	106	88-103	96	33-47	39
11	HP1980	N 411	45(34)	65-83	74	95-124	111	86-98	92	35-42	39
12	UBW20	N 412	57(34)	68-83	77	101-125	114	84-99	90	27-44	34
13	DBW424	N 413	57(35)	60-80	72	95-118	110	81-99	89	26-43	34
14	BCW30	N 414	57(34)	62-83	73	95-124	111	91-99	94	28-44	36
15	UP3126	N 415	46(34)	59-77	70	93-119	108	85-99	93	36-50	39
16	WH1322	N 416	45(35)	65-79	72	99-120	110	81-97	90	29-43	36
17	DBW423	N 417	46(35)	58-77	70	92-119	107	94-101	97	37-46	40
18	DBW422	N 418	45(35)	58-74	67	91-116	105	82-98	89	32-42	36
19	K2207	N 419	57(35)	56-76	67	90-116	105	79-101	87	26-46	37
20	BRW3941	N 420	35(34)	65-79	72	96-124	110	85-98	90	32-46	36
21	DBW421	N 421	68(34)	58-75	67	90-116	105	84-105	96	32-43	37
22	HD3453	N 422	36(35)	61-80	70	94-120	108	87-100	92	32-51	41
23	JKW303	N 423	46(34)	57-80	71	95-118	108	83-96	90	24-39	34
24	HD3454	N 425	57(35)	59-80	72	95-122	110	80-97	88	29-42	36
25	PBW922	N 426	57(35)	54-73	64	87-116	104	68-99	80	30-41	36
26	PBW921	N 428	46(35)	57-79	70	91-120	109	72-95	82	29-41	35
27	K2208	N 429	57(35)	62-78	70	90-118	107	80-99	90	28-44	38
28	RAJ4580	N 431	57(35)	62-82	74	95-125	111	86-102	95	29-46	37
29	WH1324	N 433	46(35)	58-76	69	91-117	106	86-97	92	34-47	40
30	K2206	N 434	45(24)	63-83	73	99-125	111	80-102	92	26-44	35
31	HD3455	N 435	46(34)	55-75	66	91-117	105	81-99	89	31-42	36
32	UP3127	N 436	46(34)	59-82	71	94-124	109	88-99	92	30-45	37
33	DBW107(C)	N 424	36(34)	58-73	67	94-117	106	81-98	91	28-43	36
34	HD3059(C)	N 427	46(35)	58-79	71	91-120	109	86-99	91	26-45	36
35	DBW173(C)	N 430	46(35)	60-81	72	94-124	110	83-96	89	29-43	37
36	HI1563(C)	N 432	68(35)	54-71	64	90-116	103	80-101	93	33-46	38

1. Ancillary data from Ayodhya, Sabour, Burdwan, Coochbehar, Kalyani, Ranchi, Shillongani, Varanasi centres.
2. Leaf blight data from Ayodhya, Sabour, Burdwan, Coochbehar, Kalyani and Shillongani centres.

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North Eastern Plains Zone

Individual Station Leaf blight Data

SN	Variety	Code	Ayodhya	Sabour	Burdwan	Coochbehar	Kalyani	Shillongani
1	PBW923	N 401	12	35	46	35	24	68
2	SVPWL21-14	N 402	23	46	24	25	25	24
3	PBW920	N 403	24	34	23	36	23	46
4	NW8071	N 404	12	46	34	45	25	57
5	PBW919	N 405	12	34	12	34	35	57
6	HD3452	N 406	12	45	24	35	25	46
7	NW8055	N 407	24	34	35	45	24	46
8	RAJ4581	N 408	35	34	35	46	35	35
9	DBW420	N 409	34	35	46	35	25	35
10	WH1323	N 410	12	56	23	23	24	57
11	HP1980	N 411	24	45	12	34	23	35
12	UBW20	N 412	23	36	0	35	35	57
13	DBW424	N 413	12	35	24	36	35	57
14	BCW30	N 414	12	34	24	45	24	57
15	UP3126	N 415	12	35	24	46	23	35
16	WH1322	N 416	23	35	45	45	25	35
17	DBW423	N 417	24	35	35	46	35	46
18	DBW422	N 418	25	45	34	25	25	35
19	K2207	N 419	34	35	34	23	25	57
20	BRW3941	N 420	34	34	23	25	24	35
21	DBW421	N 421	24	46	0	35	23	68
22	HD3453	N 422	23	35	24	36	24	35
23	JKW303	N 423	12	46	34	34	24	35
24	HD3454	N 425	23	46	34	36	24	57
25	PBW922	N 426	24	35	57	35	24	24
26	PBW921	N 428	34	46	45	25	24	46
27	K2208	N 429	12	46	34	45	25	57
28	RAJ4580	N 431	24	45	35	25	35	57
29	WH1324	N 433	12	46	24	36	25	46
30	K2206	N 434	23	45	23	35	24	24
31	HD3455	N 435	34	34	23	45	23	46
32	UP3127	N 436	35	35	23	46	24	24
33	DBW107(C)	N 424	12	36	23	34	35	35
34	HD3059(C)	N 427	35	35	45	36	25	46
35	DBW173(C)	N 430	12	36	23	46	36	35
36	HI1563(C)	N 432	23	35	24	35	26	68

Summary of Disease Data and Agronomic Characteristics

Central Zone			Trial: NIVT-3B-IR-LS-TAS, 2022-23										
SN	Variety	Code	Rust Reactions		Agronomic Characteristics								
			Br	Bl	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.	TGW.R	TGW.M
1	NIAW4432	N-502	0	TR	54-79	64	93-122	110	75-97	89	5	28-54	39
2	HD3456	N-503	0	tMR	59-82	68	98-126	113	79-101	90	0	35-51	40
3	MACS6829	N-504	0	0	52-80	61	94-120	108	79-113	100	5	36-51	41
4	HI1686	N-505	0	tR	50-72	56	93-118	107	74-113	87	0	35-52	44
5	MP3568	N-506	0	tMR	51-75	58	93-119	107	72-97	82	0	32-51	40
6	LOK81	N-507	tMR	40S	45-75	56	95-119	107	64-95	80	0	38-52	44
7	MACS6830	N-508	0	0	54-81	64	94-122	111	85-121	103	15	36-53	47
8	HI1685	N-510	0	tR	51-77	59	94-119	108	74-94	87	0	40-53	44
9	UAS3027	N-511	0	tMS	54-76	64	94-123	110	73-102	88	0	35-53	41
10	GW551	N-512	0	0	51-80	61	94-121	109	80-106	93	0	34-52	43
11	PBW924	N-513	5MR	20MR	57-79	68	100-126	113	66-106	80	0	31-47	37
12	GW558	N-514	0	0	50-78	59	95-120	109	67-97	81	0	30-51	41
13	DBW426	N-515	0	20MS	57-79	65	97-126	111	72-98	85	0	42-53	46
14	NIAW4300	N-516	0	0	59-81	66	101-122	112	85-109	94	0	41-53	47
15	WH1325	N-517	tMR	10MR	55-80	65	98-126	111	76-109	86	0	37-50	41
16	MP3575	N-518	tR	tMR	57-79	67	98-125	112	64-100	81	0	31-52	37
17	GW556	N-519	0	tR	52-77	61	95-121	110	68-94	81	0	37-48	43
18	UAS3028	N-520	0	20MR	54-79	63	96-122	109	79-102	92	0	30-54	40
19	WSM138	N-521	0	0	54-81	65	94-123	111	83-105	94	0	37-51	42
20	HI1687	N-522	0	tR	51-75	61	95-121	110	71-105	86	0	41-52	46
21	CG1046	N-523	5R	0	53-78	61	95-120	110	86-111	99	15	34-53	46
22	DBW425	N-524	tR	20MR	55-79	65	95-123	111	80-111	95	0	36-50	42
23	MP1394	N-525	0	0	52-71	59	91-117	107	74-107	87	0	29-52	42
24	HD2864(C)	N-501	0	0	44-76	57	96-122	109	70-94	81	0	33-51	40
25	HD2932(C)	N-509	20S	20MR	53-79	63	95-124	111	81-121	87	0	35-50	41

1. Ancillary data from Indore, Powarkheda, Bilaspur, Jabalpur, Gwalior, Junagadh, Lok bharti, SK Nagar and Vijapur centers
2. Lodging data from Powarkheda and Vijapur
3. Rust data from Junagadh and Vijapur centers

Summary of Disease Data and Agronomic Characteristics

Peninsular Zone

Trial: NIVT-3B-IR-LS-TAS, 2022-23

SN	Variety	Code	Disease Reactions	Agronomic Characteristics							
			BI	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	TGW.R	TGW.M
1	NIAW4432	N-502	0	54-62	57	91-112	103	85-91	87	27-42	39
2	HD3456	N-503	0	55-70	64	102-114	109	85-98	91	31-40	35
3	MACS6829	N-504	0	49-64	57	92-113	104	100-106	102	34-45	42
4	HI1686	N-505	0	49-58	53	91-120	105	79-87	84	33-47	44
5	MP3568	N-506	0	48-65	56	87-111	102	76-84	80	27-41	37
6	LOK81	N-507	0	46-61	54	89-110	102	75-83	79	32-47	41
7	MACS6830	N-508	0	50-64	57	91-112	104	100-105	102	24-49	43
8	HI1685	N-510	0	48-63	56	90-111	103	82-87	86	38-49	44
9	UAS3027	N-511	0	54-70	61	92-116	105	85-89	87	23-44	40
10	GW551	N-512	0	51-63	56	91-111	103	89-95	92	33-48	43
11	PBW924	N-513	0	52-73	62	100-116	107	74-80	77	30-35	33
12	GW558	N-514	0	48-58	53	93-109	104	75-85	79	31-46	42
13	DBW426	N-515	0	54-66	62	93-115	107	78-85	82	34-49	45
14	NIAW4300	N-516	0	57-71	66	100-115	109	89-101	94	20-45	38
15	WH1325	N-517	0	54-63	60	100-112	107	79-89	86	32-43	40
16	MP3575	N-518	0	56-70	65	101-115	110	75-85	80	22-41	34
17	GW556	N-519	0	50-59	54	92-110	103	71-82	76	28-43	39
18	UAS3028	N-520	0	55-63	59	99-112	107	86-91	89	30-47	40
19	WSM138	N-521	0	54-62	58	92-111	103	91-98	93	31-43	39
20	HI1687	N-522	0	48-64	56	92-112	104	80-85	84	40-48	45
21	CG1046	N-523	0	49-64	58	93-113	104	96-100	98	25-50	42
22	DBW425	N-524	0	55-69	61	90-113	104	84-96	93	36-44	41
23	MP1394	N-525	0	49-59	55	92-109	102	81-87	84	25-46	40
24	HD2864(C)	N-501	0	48-63	54	91-111	103	72-84	80	31-43	39
25	HD2932(C)	N-509	10S	54-62	58	92-113	104	83-93	88	31-40	35

1. Ancillary data from Niphad, Pune, Bagalkot, Dharwad, Dhule and Parbhani centers
2. Black Rust data from Dharwad center

Summary of Disease Data and Agronomic Characteristics

Central Zone

NIVT-4-IR-TS-TDM, 2022-23

S.N.	Variety	Code	Disease Reaction	Agronomic Characteristics								
			BI	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod. M	TGW.R	TGW.M
1	HI8850	N601	0	64-85	73	113-138	124	73-103	91	0	43-53	49
2	MPO1396	N602	0	64-87	74	112-137	125	76-103	89	0	40-52	45
3	PWU24	N603	0	63-90	75	113-140	126	76-105	91	0	41-53	48
4	GW1367	N604	tR	61-82	71	110-137	123	69-98	83	0	39-62	54
5	DDW63	N605	0	58-86	73	109-141	126	69-104	87	0	43-52	48
6	MACS4135	N606	0	52-84	67	107-136	121	71-110	89	0	45-58	52
7	HI8849	N607	0	60-86	73	108-137	123	79-110	92	35	42-51	46
8	DDW62	N608	0	64-87	75	112-139	124	72-103	86	10	39-53	46
9	MACS4125	N609	0	61-86	72	108-137	123	76-113	94	0	43-60	52
10	PDW364	N610	0	78-95	85	122-138	130	88-106	97	10	26-47	38
11	NIDW1499	N612	0	61-85	72	110-137	124	78-107	94	0	41-57	46
12	UAS483	N614	0	60-88	74	110-138	124	77-107	92	7	36-49	44
13	NIDW1520	N615	0	67-93	80	112-145	128	78-107	94	30	37-52	43
14	UAS482	N616	0	68-89	77	113-138	126	73-102	90	10	31-46	37
15	GW1365	N617	0	61-84	71	109-137	124	69-101	82	0	44-54	49
16	GW1366	N618	0	51-81	66	105-140	121	70-106	89	10	42-59	47
17	PDW365	N619	0	72-94	83	124-144	131	70-99	86	25	28-49	37
18	MPO1395	N620	tR	54-82	69	109-136	123	81-109	93	15	46-56	52
19	WHD968	N621	0	65-93	78	117-139	127	72-104	88	0	38-48	43
20	HI8848	N622	tR	65-81	72	110-134	124	75-106	90	30	40-54	46
21	AKDW5516	N623	0	58-86	72	109-138	124	73-106	89	0	41-52	47
22	NIDW1534	N624	0	62-88	74	110-140	124	81-108	93	10	39-46	42
23	HI8737 (C)	N611	tR	60-85	72	110-139	123	71-101	84	25	46-60	51
24	MACS3949 (C)	N613	0	66-87	76	113-135	124	74-101	90	0	42-53	46
25	HI8713 (C)	N625	0	67-90	77	111-139	126	76-105	94	10	40-48	43

1. Ancillary data from Dhanduka, Gwalior, Indore, Junagadh, Kota, Powarkheda, SK Nagar, Udaipur and Vijapur centres.
2. Black rust data from Vijapur center.
3. Lodging Data reported from Kota, SK Nagar and Vijapur centers.

Summary of Agronomic Characteristics

Peninsular Zone

NIVT-4-IR-TS-TDM, 2022-23

S.N.	Variety	Code	Agronomic Characteristics								
			Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.	TGW.R	TGW.M
1	HI8850	N601	57-65	63	108-116	113	81-92	88	10	42-55	46
2	MPO1396	N602	58-67	64	108-120	115	78-84	82	0	37-50	42
3	PWU24	N603	58-68	64	106-117	114	73-89	84	5	40-50	44
4	GW1367	N604	57-62	60	109-117	113	72-81	75	5	37-62	49
5	DDW63	N605	56-63	61	103-115	111	71-85	80	0	40-51	45
6	MACS4135	N606	54-58	56	102-113	109	74-83	77	5	41-56	48
7	HI8849	N607	56-62	61	109-117	113	77-87	84	0	42-52	47
8	DDW62	N608	57-70	66	108-124	117	71-87	78	0	40-49	44
9	MACS4125	N609	56-68	64	106-120	115	84-97	91	0	39-60	49
10	PDW364	N610	74-89	79	118-130	125	81-97	89	5	34-47	39
11	NIDW1499	N612	58-68	64	106-118	113	82-96	90	0	41-53	46
12	UAS483	N614	57-70	64	107-118	115	81-92	84	20	44-54	47
13	NIDW1520	N615	64-66	65	112-120	116	82-89	86	0	39-51	45
14	UAS482	N616	56-70	67	102-122	115	72-94	85	0	30-40	37
15	GW1365	N617	56-65	61	108-116	113	73-79	77	0	36-53	43
16	GW1366	N618	54-58	56	97-115	108	70-85	76	0	37-49	42
17	PDW365	N619	74-87	77	116-128	123	71-85	80	10	35-43	38
18	MPO1395	N620	57-63	61	108-116	113	85-91	88	20	38-55	47
19	WHD968	N621	62-73	67	108-118	114	74-90	80	5	36-47	40
20	HI8848	N622	58-68	64	108-115	113	83-91	86	15	31-48	43
21	AKDW5516	N623	55-62	60	100-117	110	82-90	88	0	36-54	43
22	NIDW1534	N624	57-66	63	107-120	116	82-92	89	5	36-44	41
23	HI8737 (C)	N611	58-64	62	105-121	115	67-87	81	10	42-51	47
24	MACS3949 (C)	N613	59-70	67	107-122	117	76-92	82	0	41-55	47
25	HI8713 (C)	N625	59-70	66	108-120	116	83-93	90	5	40-51	45

1. Ancillary data from Pune, Niphad, Bagalkot, Dharwad, Nippani and Parbhani centres.
2. No disease incidence reported from any centre.
3. Lodging Data reported from Pune and Parbhani centres.

Summary of Disease Data and Agronomic Characteristics

North Western Plains Zone

Trial: NIVT-5A-RI-TS-TAS 2022-23

SN	Variety	Code	Disease Reaction				Agronomic Characteristics								
			YI	ACI	Br	ACI	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.M	TGW.R	TGW.M
1	BRW3935	N701	20S	8.0	10S	2.0	88-110	102	129-162	149	82-116	102	5	35-47	39
2	DBW427	N702	40S	18.0	40S	12.0	84-109	99	125-159	146	84-110	98	0	35-46	39
3	NW8053	N703	40S	20.0	20S	7.0	84-112	102	127-161	149	81-119	101	0	32-52	41
4	DBW430	N704	40S	19.0	10S	2.8	87-112	102	126-161	148	84-116	101	0	34-49	41
5	PBW926	N706	60S	21.0	10S	5.0	92-111	103	128-159	147	79-119	100	0	34-49	42
6	HD3459	N707	20S	7.0	10S	4.0	82-106	97	126-160	147	87-114	101	25	31-48	40
7	UP3133	N708	40S	14.4	5S	1.0	92-114	105	128-160	148	81-114	98	0	36-48	41
8	HD3458	N710	10S	5.0	40S	16.0	84-107	100	125-163	149	83-108	96	0	33-47	41
9	WH1326	N711	40S	13.0	10S	4.0	84-107	101	127-160	147	75-120	102	0	31-55	45
10	WH1327	N712	10S	5.0	0	0	82-107	99	125-160	146	77-110	95	0	31-45	39
11	HD3468	N713	60S	14.0	20S	9.0	87-108	101	126-162	146	87-118	100	0	29-45	37
12	K2210	N714	60S	14.6	20S	6.0	83-112	101	125-162	148	82-113	97	0	32-52	41
13	DBW429	N715	60S	24.0	5S	1.0	93-114	106	128-160	150	83-112	97	0	29-46	38
14	PBW925	N716	60S	18.0	10S	2.0	83-107	98	128-162	147	87-114	98	0	29-46	41
15	JKW304	N717	60S	18.0	30S	12.0	92-112	104	129-161	150	87-117	103	5	30-51	42
16	PBW927	N718	5S	2.8	5S	2	88-112	103	126-161	147	88-112	98	0	34-46	41
17	HD3460	N720	60S	25.0	20S	6.0	92-114	106	128-161	149	81-120	99	0	27-49	37
18	PBW928	N721	10S	4.0	40S	22.0	95-114	108	130-163	150	78-113	99	0	28-44	37
19	UP3129	N722	40S	16.0	0	0	91-113	105	128-162	150	86-110	97	0	32-47	39
20	JAUW705	N723	40S	12.0	10S	5.8	90-112	102	128-161	149	90-133	108	0	29-49	38
21	DBW428	N724	10S	5.0	0	0	87-109	101	129-159	147	84-118	100	0	33-55	41
22	HD3457	N725	10S	2.0	0	0	87-113	103	127-161	148	84-109	93	0	35-47	40
23	K1317(C)	N705	60S	15.0	tS	0.2	92-113	104	127-161	149	86-117	101	0	32-54	44
24	PBW644(C)	N709	40S	22.0	20S	8.0	90-110	103	125-161	147	88-124	107	10	30-45	39
25	HI1612(C)	N719	60S	26.0	10MS	1.6	93-114	107	130-163	150	90-122	102	25	31-47	38

1. Ancillary data from Delhi, Durgapura, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana and Modipuram centres.
2. Yellow rust data from Gurdaspur, Hisar, Jammu, Karnal and Ludhiana centres.
3. Brown rust data from Gurdaspur, Hisar, Jammu, Karnal and Ludhiana centres.
4. Lodging data from Hisar and Ludhiana centres.

NIVT-5A-RI-TS-TAS, 2022-23
North Western Plains Zone

Individual Station Rust Data

SN	Variety	Code	Yellow rust					Brown rust				
			Gurdaspur	Hisar	Jammu	Karnal	Ludhiana	Gurdaspur	Hisar	Jammu	Karnal	Ludhiana
1	BRW3935	N701	20S	0	0	0	20S	0	0	0	10S	0
2	DBW427	N702	40S	10S	40S	0	0	0	10S	0	10S	40S
3	NW8053	N703	40S	0	40S	0	20S	0	0	20S	5S	10S
4	DBW430	N704	40S	5S	10S	0	40S	0	0	5MS	10S	0
5	PBW926	N706	20S	5S	60S	0	20S	10S	0	5S	10S	0
6	HD3459	N707	20S	0	5S	0	10S	0	0	0	10S	10S
7	UP3133	N708	20S	10S	5MR	0	40S	0	0	0	5S	0
8	HD3458	N710	10S	5S	10S	0	0	40S	0	0	20S	20S
9	WH1326	N711	20S	0	40S	0	5S	0	0	0	10S	10S
10	WH1327	N712	5S	0	10S	0	0	0	0	0	0	0
11	HD3468	N713	10S	0	60S	0	0	0	20S	10S	5S	10S
12	K2210	N714	20MR	0	60S	0	5S	0	0	0	10S	20S
13	DBW429	N715	40S	0	60S	0	20S	0	0	5S	0	0
14	PBW925	N716	10S	0	60S	0	20S	0	0	10S	0	0
15	JKW304	N717	10S	0	60S	0	20S	10S	0	10S	30S	10S
16	PBW927	N718	5MS	0	5S	0	5S	0	0	0	5S	5S
17	HD3460	N720	60S	0	40S	5S	20S	0	0	5S	20S	5S
18	PBW928	N721	10S	0	0	0	10S	10S	0	40S	40S	20S
19	UP3129	N722	40S	0	20S	0	20S	0	0	0	0	0
20	JAUW705	N723	40S	5S	10S	0	5S	0	10S	5MS	10S	5S
21	DBW428	N724	10S	0	10S	0	5S	0	0	0	0	0
22	HD3457	N725	0	0	10S	0	0	0	0	0	0	0
23	K1317(C)	N705	0	0	60S	5S	10S	0	0	0	tS	0
24	PBW644(C)	N709	40S	10S	20S	0	40S	0	0	0	20S	20S
25	HI1612(C)	N719	40S	60S	10S	tR	20S	0	0	0	10MS	0

Summary of Disease Data and Agronomic Characteristics

North Eastern Plains Zone

Trial: NIVT-5A-RI-TS-TAS, 2022-23

SN	Variety	Code	Disease Reaction		Agronomic Characteristics								
			Br	LB (HS, Av)	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.M	TGW.R	TGW.M
1	BRW3935	N701	5S	46(35)	60-88	76	104-138	122	74-99	90	0	35-44	39
2	DBW427	N702	40S	79(46)	58-86	75	106-140	123	76-98	88	20	32-47	39
3	NW8053	N703	20S	68(45)	54-88	76	105-138	124	81-96	89	0	36-50	42
4	DBW430	N704	0	46(35)	58-86	74	103-142	122	77-102	90	5	32-46	39
5	PBW926	N706	0	46(35)	60-91	77	106-137	123	79-101	93	0	32-52	42
6	HD3459	N707	15S	57(35)	57-88	74	105-139	123	81-100	91	70	35-45	39
7	UP3133	N708	5S	56(45)	62-93	81	106-141	125	75-93	85	40	30-48	39
8	HD3458	N710	20S	78(46)	55-88	76	105-139	125	74-95	86	0	30-48	40
9	WH1326	N711	0	67(45)	54-86	72	108-137	123	69-104	89	50	30-54	43
10	WH1327	N712	0	78(46)	62-88	78	103-139	123	72-93	83	20	30-46	39
11	HD3468	N713	tMS	56(45)	61-91	77	105-140	124	75-98	90	40	33-46	39
12	K2210	N714	20S	56(45)	58-86	74	104-138	123	74-98	83	0	32-45	40
13	DBW429	N715	0	57(45)	62-93	80	107-142	124	77-91	85	0	29-45	38
14	PBW925	N716	0	57(35)	54-92	75	107-139	125	78-95	88	0	33-45	39
15	JKW304	N717	60S	45(34)	62-95	81	106-140	126	78-101	92	50	33-47	39
16	PBW927	N718	5MS	78(56)	58-88	76	104-139	123	71-92	86	40	32-48	39
17	HD3460	N720	40S	46(35)	63-95	81	106-140	126	81-102	92	10	33-47	39
18	PBW928	N721	20S	57(34)	63-96	82	105-142	125	85-97	91	0	31-54	39
19	UP3129	N722	10S	78(46)	61-90	79	106-138	126	69-97	85	0	32-48	38
20	JAUW705	N723	5S	56(35)	57-88	76	106-137	123	81-101	94	0	27-49	40
21	DBW428	N724	0	46(35)	58-89	76	102-136	122	72-98	90	0	34-48	40
22	HD3457	N725	0	67(46)	58-88	75	105-138	124	66-93	79	0	30-45	37
23	K1317(C)	N705	0	67(45)	61-92	79	104-140	124	78-103	94	60	35-49	42
24	PBW644(C)	N709	0	56(35)	63-91	79	108-140	124	89-101	96	80	30-44	39
25	HI1612(C)	N719	0	46(35)	67-94	83	107-141	126	80-100	88	100	30-45	38

1. Ancillary data from Sabour, Burdwan, Coochbehar, Kalyani, Kanpur, RPCAU-Pusa, Shillongani and Varanasi centres.
2. Brown rust data from Kanpur centre only.
3. Leaf blight data from Sabour, Burdwan, Coochbehar, Kalyani, RPCAU-PUSA and Shillongani centres
4. Lodging data from Shillongani centre only.

**NIVT-5A-RI-TS-TAS, 2022-23
North Eastern Plains Zone**

Individual Station Leaf Blight Data

SN	Variety	Code	Sabour	Burdwan	Coochbehar	Kalyani	RPCAU-PUSA	Shillongani
1	BRW3935	N701	34	24	34	46	45	35
2	DBW427	N702	45	34	25	79	56	35
3	NW8053	N703	46	45	23	68	34	35
4	DBW430	N704	46	24	34	35	45	46
5	PBW926	N706	46	34	34	36	45	46
6	HD3459	N707	35	45	23	57	23	46
7	UP3133	N708	45	56	34	23	34	35
8	HD3458	N710	35	45	45	24	78	46
9	WH1326	N711	45	67	23	35	67	35
10	WH1327	N712	34	24	35	47	78	46
11	HD3468	N713	35	45	34	46	56	35
12	K2210	N714	46	56	23	46	45	46
13	DBW429	N715	35	24	34	57	56	35
14	PBW925	N716	46	24	34	34	45	57
15	JKW304	N717	35	45	23	24	34	35
16	PBW927	N718	34	78	45	68	56	46
17	HD3460	N720	34	46	34	23	45	35
18	PBW928	N721	35	23	23	24	34	57
19	UP3129	N722	35	78	23	25	56	46
20	JAUW705	N723	35	56	23	23	45	46
21	DBW428	N724	34	46	23	46	45	35
22	HD3457	N725	35	67	34	58	34	57
23	K1317(C)	N705	35	56	34	24	67	46
24	PBW644(C)	N709	35	35	23	24	56	46
25	HI1612(C)	N719	36	45	34	23	45	46

Summary of Disease Data and Agronomic Characteristics

Central Zone

Trial: NIVT 5B-RI-TS-TDM, 2022-23

SN	Variety	Code	Disease Reaction	Agronomic Characteristics								
			BI	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.M	TGW.R	TGW.M
1	PBN16-1826	N801	tR	50-84	68	96-139	121	75-109	90	0	35-48	40
2	NIAW4387	N802	0	47-85	63	103-141	121	74-108	92	0	38-51	45
3	DBW428	N803	0	50-83	66	97-142	121	68-105	89	0	45-59	52
4	UAS3029	N804	0	56-84	69	102-140	123	71-102	87	0	43-54	47
5	UAS484(d)	N806	0	58-80	69	105-144	123	72-97	88	0	42-60	48
6	GW1368(d)	N807	0	52-79	62	98-141	118	55-96	67	0	37-55	50
7	HI8852(d)	N808	0	53-81	65	99-140	120	64-100	75	0	43-57	50
8	MACS4131(d)	N809	0	53-86	66	99-138	120	67-105	82	0	41-53	47
9	HI1688	N810	0	47-87	61	95-138	116	62-110	86	0	40-51	47
10	DBW432	N811	tR	53-81	66	99-133	120	69-102	82	0	42-54	48
11	MPO1398(d)	N812	0	59-87	74	110-138	126	67-103	80	0	40-55	47
12	NIAW4267	N813	0	52-83	65	96-142	121	73-104	90	0	37-47	43
13	HI1689	N814	0	50-79	61	97-130	118	73-100	86	0	38-52	45
14	AKAW5514	N815	0	57-82	70	110-136	124	84-119	105	20	35-51	42
15	HI1693	N816	0	59-83	71	105-137	124	62-101	76	0	34-48	40
16	GW552	N817	0	54-86	69	97-137	120	69-100	84	0	35-46	39
17	DBW431	N818	0	61-90	74	109-138	125	61-100	76	0	34-46	39
18	MP3577	N822	0	44-86	60	96-140	118	57-100	74	0	37-52	44
19	DDW64(d)	N823	tR	57-84	71	109-140	123	66-101	84	0	37-53	44
20	HI8851(d)	N824	0	54-81	66	100-138	120	71-103	83	0	43-56	51
21	CG1047	N825	0	52-79	65	96-132	118	75-115	93	0	32-52	42
22	DBW110(C)	N805	tR	57-89	68	100-139	121	73-105	86	0	38-50	45
23	HI1605(C)	N820	0	54-89	68	100-137	120	77-104	89	0	38-46	41
24	HI8627(d)(C)	N819	0	61-87	74	112-138	125	63-101	87	0	36-48	44
25	UAS446(d)(C)	N821	0	60-89	71	103-139	122	70-98	82	5	37-54	42

1. Ancillary data from Sagar, Jabalpur, Kota, Udaipur, Powarkheda, Bilaspur, Dhanduka, Indore, Junagadh, SK Nagar and Vijapur centers
2. Black rust data from Vijapur center.
3. Data on lodging from Sagar and Udaipur centers.

Summary of Agronomic Characteristics

Peninsular Zone

Trial:NIVT 5B-RI-TS-TDM, 2022-23

SN	Variety	Code	Agronomic Characteristics								
			Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.	TGW.R	TGW.M
1	PBN16-1826	N801	52-65	60	98-117	107	67-79	76	0	32-39	35
2	NIAW4387	N802	44-62	55	95-116	106	72-83	80	0	32-46	41
3	DBW428	N803	52-63	58	99-113	106	67-82	75	0	42-52	46
4	UAS3029	N804	58-68	62	103-117	109	70-80	75	0	38-47	41
5	UAS484(d)	N806	57-64	59	103-115	109	77-89	84	20	40-51	43
6	GW1368(d)	N807	47-61	55	101-112	105	56-67	62	0	40-51	43
7	HI8852(d)	N808	52-64	57	102-114	107	66-79	70	25	43-50	47
8	MACS4131(d)	N809	52-63	58	99-115	107	70-80	74	0	36-49	42
9	HI1688	N810	42-61	53	93-115	103	68-80	74	20	41-49	46
10	DBW432	N811	55-64	59	101-116	108	66-76	72	0	37-46	42
11	MPO1398(d)	N812	62-72	65	107-117	111	66-77	72	0	24-51	41
12	NIAW4267	N813	52-62	58	100-114	108	69-80	77	25	37-45	41
13	HI1689	N814	44-62	54	96-112	104	66-84	76	0	37-45	41
14	AKAW5514	N815	62-68	65	107-118	112	77-107	100	0	23-46	36
15	HI1693	N816	57-69	64	102-119	110	67-75	71	0	28-41	35
16	GW552	N817	47-67	61	102-112	106	67-76	71	0	29-40	36
17	DBW431	N818	61-75	68	104-122	113	64-78	69	0	29-39	35
18	MP3577	N822	43-62	54	95-114	103	61-71	65	0	38-48	42
19	DDW64(d)	N823	62-68	65	106-117	111	74-83	78	0	38-47	42
20	HI8851(d)	N824	52-63	58	99-113	107	70-84	76	0	42-50	47
21	CG1047	N825	55-63	60	99-112	106	80-83	81	0	28-52	44
22	DBW110(C)	N805	57-64	61	104-117	110	67-78	74	0	37-43	39
23	HI1605(C)	N820	55-63	60	100-115	109	74-81	78	0	35-39	38
24	HI8627(d)(C)	N819	63-74	69	107-121	113	62-79	69	0	37-50	44
25	UAS446(d)(C)	N821	59-71	66	105-117	111	67-82	75	0	33-48	40

1. Ancillary data Pune, Niphad, Dhule, Parbhani and Dharwad centers.
2. Data on Lodging from Parbhani center.

Summary of Disease Data and Agronomic Characteristics

North Western Plains Zone

Trial: NIVT-6-IR-ES-TAS, 2022-23

SN	Variety	Code	Disease Reaction			Agronomic Characteristics							Grain character	
			YI	ACI	Br	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.M	TGW.R	TGW.M
1	GW553	N 902	tMS	0.3	0	84-100	95	140-159	150	90-118	103	45	39-45	42
2	DBW433	N 903	0	0	10S	107-118	112	146-161	153	97-113	103	25	35-43	39
3	GW557	N 904	5S	1.9	0	91-104	98	140-159	150	90-97	94	30	38-45	42
4	DBW440	N 905	0	0	0	100-111	105	143-158	150	93-109	100	30	37-44	40
5	DBW434	N 906	0	0	5S	97-111	102	141-160	150	98-120	106	20	42-47	44
6	PBW903	N 907	tS	0.3	0	102-112	107	145-158	152	92-111	100	35	40-46	43
7	DBW435	N 908	0	0	20S	105-116	110	145-158	153	100-124	108	45	37-48	42
8	MP1399	N 910	0	0	0	98-108	103	144-157	151	90-122	103	20	40-50	44
9	WH1320	N 911	0	0	10S	97-116	105	143-159	151	92-108	100	25	35-46	39
10	PBW904	N 912	tMS	0.3	0	104-115	109	145-159	152	92-96	94	30	33-49	39
11	HD3464	N 913	5S	1.7	10S	101-122	114	145-168	157	96-120	105	45	37-42	39
12	DBW436	N 914	0	0	20S	100-111	105	142-158	151	100-114	105	35	38-47	41
13	HI1690	N 915	40S	23.3	0	91-109	99	139-161	150	88-115	97	35	34-39	36
14	RAJ4583	N 916	5S	1.9	5S	93-107	101	142-164	152	95-105	100	30	39-42	41
15	DBW438	N 917	0	0	10S	101-116	109	146-164	153	95-112	102	20	40-47	44
16	BRW3922	N 918	20S	6.7	0	103-116	109	145-160	153	97-112	103	35	33-43	39
17	HI1691	N 919	30S	14.7	0	91-105	100	140-158	149	97-106	101	30	43-47	44
18	MP3572	N 920	10S	6	0	93-107	101	143-158	150	90-102	98	30	34-39	37
19	PBW905	N 921	0	0	10S	104-118	111	146-159	154	100-118	108	30	30-42	35
20	HD3461	N 922	0	0	30S	106-121	111	145-165	154	99-112	105	40	40-41	41
21	CG1049	N 923	20S	11.7	tS	99-116	108	145-159	152	99-116	105	40	37-43	40
22	DBW439	N 925	tMS	0.3	5S	93-110	101	140-155	149	93-110	101	30	44-46	45
23	DBW437	N 926	0	0	0	95-109	104	139-155	148	97-103	99	25	39-44	41
24	HD3462	N 927	0	0	0	108-121	112	145-161	154	90-113	102	35	35-44	38
25	JWS1333	N 928	10S	5MS	30S	108-123	116	145-165	156	100-113	107	30	31-38	35
26	PBW929	N 930	0	0	0	103-114	108	146-165	153	85-107	94	20	34-43	38
27	HD3463	N 931	0	0	0	110-118	113	146-160	152	97-113	106	35	36-49	40
28	DBW445	N 932	tMS	0.3	0	101-111	106	144-158	152	95-112	102	30	38-45	41
29	PBW906	N 933	0	0	5S	100-113	106	145-159	151	95-114	102	25	45-49	47
30	WH1321	N 934	0	0	0	106-117	111	146-161	152	99-110	106	35	35-43	39
31	PBW907	N 935	0	0	40S	109-118	113	146-161	153	100-114	106	40	36-46	40
32	UP3130	N 936	0	0	0	105-117	110	146-159	152	99-119	106	35	33-40	36
33	DBW187(C)	N 901	tMS	0.3	5MS	95-116	105	143-160	152	97-115	103	27	40-47	44
34	GW322(C)	N 909	5S	1.7	5S	91-106	100	140-158	150	88-106	97	40	33-38	36
35	DBW303(C)	N 924	0	0	0	96-109	103	143-153	149	93-109	102	25	30-40	36
36	DBW327(C)	N 929	0	0	10S	102-115	108	146-160	153	93-106	99	20	44-51	47

1. Ancillary data from BISA-Ludhiana, Delhi, Hisar, Karnal and Ludhiana centres.
2. Yellow rust data from Delhi, Hisar and Karnal centres.
3. Brown rust data from Delhi and Karnal centres.

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Individual Station Rust Data

SN	Variety	Code	Yellow rust			Brown rust	
			Delhi	Hisar	Karnal	Delhi	Karnal
1	GW553	N 902	0	0	tMS	0	0
2	DBW433	N 903	0	0	0	0	10S
3	GW557	N 904	5S	0	tMS	0	0
4	DBW440	N 905	0	0	0	0	0
5	DBW434	N 906	0	0	0	0	5S
6	PBW903	N 907	0	tS	0	0	0
7	DBW435	N 908	0	0	0	0	20S
8	MP1399	N 910	0	0	0	0	0
9	WH1320	N 911	0	0	0	0	10S
10	PBW904	N 912	0	0	tMS	0	0
11	HD3464	N 913	0	0	5S	0	10S
12	DBW436	N 914	0	0	0	0	20S
13	HI1690	N 915	0	30S	40S	0	0
14	RAJ4583	N 916	0	5S	tMS	0	5S
15	DBW438	N 917	0	0	0	0	10S
16	BRW3922	N 918	0	20S	0	0	0
17	HI1691	N 919	10S	30S	5MS	0	0
18	MP3572	N 920	10S	0	10MS	0	0
19	PBW905	N 921	0	0	0	0	10S
20	HD3461	N 922	0	0	0	0	30S
21	CG1049	N 923	5S	20S	10S	0	TS
22	DBW439	N 925	0	0	tMS	0	5S
23	DBW437	N 926	0	0	0	0	0
24	HD3462	N 927	0	0	0	0	0
25	JWS1333	N 928	0	10S	5MS	0	30S
26	PBW929	N 930	0	0	0	0	0
27	HD3463	N 931	0	0	0	0	0
28	DBW445	N 932	0	0	tMS	0	0
29	PBW906	N 933	0	0	0	0	5S
30	WH1321	N 934	0	0	0	0	0
31	PBW907	N 935	0	0	0	0	40S
32	UP3130	N 936	0	0	0	0	0
33	DBW187(C)	N 901	0	0	tMS	0	5MS
34	GW322(C)	N 909	5S	0	0	5S	0
35	DBW303(C)	N 924	0	0	0	0	0
36	DBW327(C)	N 929	0	0	0	0	10S

Summary of Disease Data and Agronomic Characteristics

Central Zone

Trial: NIVT-6-IR-ES-TAS, 2022-23

SN	Variety	Code	Disease Reaction		Agronomic Characteristics								
			Br	BI	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Lod.M	TGW.R	TGW.M
1	GW553	N 902	0	0	56-71	62	103-125	116	71-104	88	70	44-54	50
2	DBW433	N 903	5MR	0	60-86	75	115-134	125	79-98	89	0	34-43	39
3	GW557	N 904	0	0	52-75	63	96-127	116	53-91	74	0	43-48	45
4	DBW440	N 905	tR	0	53-79	66	100-130	119	76-99	88	0	40-49	46
5	DBW434	N 906	5S	0	60-79	66	110-126	119	75-99	87	0	46-54	49
6	PBW903	N 907	0	0	52-81	70	100-133	121	78-105	89	0	35-48	43
7	DBW435	N 908	5S	5S	61-80	72	111-132	123	83-104	92	0	39-46	43
8	MP1399	N 910	0	0	64-78	69	112-131	122	75-97	88	0	39-53	47
9	WH1320	N 911	0	0	64-79	68	114-127	122	78-96	89	0	39-49	45
10	PBW904	N 912	5MS	0	53-82	71	101-134	122	74-86	80	0	35-43	40
11	HD3464	N 913	0	0	54-99	82	102-140	127	90-99	95	30	33-41	37
12	DBW436	N 914	5MS	0	56-80	69	104-133	123	80-101	92	0	37-51	45
13	HI1690	N 915	0	0	46-77	62	100-126	117	63-98	80	40	37-50	45
14	RAJ4583	N 916	0	0	54-77	63	105-126	118	65-99	84	0	39-52	45
15	DBW438	N 917	0	0	45-85	70	97-133	121	80-97	90	0	44-54	48
16	BRW3922	N 918	0	0	66-83	74	119-130	125	80-109	94	0	37-45	42
17	HI1691	N 919	0	0	51-75	64	98-129	117	69-100	84	10	44-54	49
18	MP3572	N 920	0	0	59-76	66	112-130	122	74-99	87	0	39-49	43
19	PBW905	N 921	0	0	52-88	76	100-135	124	80-96	88	0	35-44	39
20	HD3461	N 922	0	5S	52-88	75	101-133	124	81-98	90	0	39-48	44
21	CG1049	N 923	0	0	60-87	72	116-133	125	67-102	90	0	45-56	51
22	DBW439	N 925	0	0	46-78	63	97-126	116	77-100	90	0	43-52	48
23	DBW437	N 926	0	0	51-78	68	98-133	121	76-96	85	0	44-50	47
24	HD3462	N 927	0	0	62-90	74	116-132	125	79-104	89	0	38-43	40
25	JWS1333	N 928	0	0	47-98	79	100-139	126	89-99	94	0	30-41	36
26	PBW929	N 930	0	0	50-79	68	98-134	122	74-100	88	0	43-51	45
27	HD3463	N 931	0	0	52-87	74	99-134	123	80-103	93	0	41-52	47
28	DBW445	N 932	0	0	65-77	69	116-130	124	82-97	89	0	44-56	50
29	PBW906	N 933	5S	0	63-80	70	114-130	123	80-94	88	0	42-52	50
30	WH1321	N 934	0	0	62-87	78	118-131	127	92-99	95	0	40-47	44
31	PBW907	N 935	5MS	0	51-88	75	100-132	123	84-96	90	0	38-46	43
32	UP3130	N 936	tR	0	52-83	70	101-135	122	78-106	92	0	34-44	40
33	DBW187(C)	N 901	0	0	59-80	68	112-133	122	73-100	88	0	45-53	48
34	GW322(C)	N 909	0	0	48-75	64	98-127	117	72-97	86	25	32-41	38
35	DBW303(C)	N 924	0	0	46-78	64	98-129	118	73-97	86	0	36-42	40
36	DBW327(C)	N 929	5S	0	62-80	72	116-134	125	76-97	88	0	43-50	47

1. Ancillary data from BISA-Jabalpur, Indore, Powarkheda, Junagadh and Vijapur centres.
2. Brown and black rust data from Junagadh centre only.
3. Lodging data from BISA-Jabalpur centre only.