

Zonal Monitoring Report, 2019-20

Northern Hills Zone (Virtual)		
Period	Team	Centres monitored
24 th May, 2020	Drs RP Meena, Mamrutha HM, Ravindra Kumar, Lakshmi Kant, KK Mishra, Dibakar Mahanta, Dharam Pal, Madhu Patial, Naval Kishore, Vijay Rana, Bindra, MK Pandey, Ajai Kumar and Anjali Agrawal	Ranichauri, Majhera, Almora, Shimla, Bajaura and Malan

Breeding trials allocated & monitored:

Centre	Trial	Remark
Ranichauri	AVT-TS-RF, IVT-TS-RF	Good, disease data to be recorded by pathologist
	AVT-LS-RI	Satisfactory, disease data to be recorded by pathologist
Majhera	AVT-TS-RF, IVT-TS RF	Very Good
Almora	IVT-TS-RF, AVT-TS-RF	Good*
	IVT/AVT-LS-RI, AVT-TS-IR	Very Good
Shimla	AVT LS RI, IVT TS RF, AVT TS-RF, AVT TS IR	Very Good
Malan	AVT LS RI, IVT TS RF, AVT TS RF, AVT TS IR	Very Good
Bajaura	AVT LS RI, IVT TS RF, AVT TS RF, AVT TS IR	Very Good

* Partially lodging

Trials rejected: Nil

Entries recommended to be dropped from further testing: Nil

Entries exhibiting higher diseases/insect infestation: Disease response: High yellow rust was observed at Bajaura & Malan centres for following entries

Entry	Yellow rust
NHTSZ 1902, 1903	40S
NHTSZ 1904	60S
NHTSZ 1905 & 1906	30S
NHIVT 1907 & 1914	40S
NHIVT 1916	60S
NHLS 1905	60S
NHLS 1906 & 1907	40S
NHLS 1908 & 1910	20S

Report on Agronomical Trials:

Trial	Centre	Remark
SPL-1	Almora	Conducted properly, treatment effects were visible
SPL-1 & SPL-4	Malan	Conducted properly, treatment effects were visible

Report on Pathological Nurseries: Nil

Report on Physiology Trials: Nil

Special comments, if any:

1. The crop is in grain filling stage, data may be expected by the end of June.
2. This year disease pressure, especially yellow rust is quite high at Malan and Bajaura. Dr Naval Kishore is requested to send the samples to Flowerdale for analysis.

North Western Plains Zone (NWPZ)		
Period	Team-I	Centers visited
15-18 th March, 2020	Drs JP Jaiswal, Gurdev Singh, Tuhina Dey, GS Mavi, Jaspal Kaur, PL Kashyap, Harikrishna, H Prashanth Babu and Satish Kumar	Jammu, Gurdaspur, Ludhiana, Bhatinda, Hisar, Durgapura and Delhi

Breeding trials allocated & monitored:

Centre	Trial	Remark
Jammu	NIVT-1A, -1B, -3A, -5A AVT-IR-TS-TAS, AVT-IR-LS-TAS, AVT-RI-TS-TAS	All the trials assigned were conducted nicely at all the locations except AVT-IR-LS-TAS and NIVT-3A at Jammu location.
Gurdaspur	NIVT-1A, -1B, -3A, -5A AVT-IR-TS-TAS, AVT-IR-LS-TAS, AVT-RI-TS-TAS SPL-HYPT-IR-ES, CI-HYT-IR-ES	
Ludhiana	NIVT-1A, -1B, -3A, -5A AVT-IR-TS-TAS, AVT-IR-LS-TAS, AVT-RI-TS-TAS SPL-HYPT-IR-ES, CI-HYT-IR-ES	
Bhatinda	AVT-IR-TS-TAS, AVT-IR-LS-TAS	
Hisar	NIVT-1A, -1B, -3A, -5A AVT-IR-TS-TAS, AVT-IR-LS-TAS, AVT-RI-TS-TAS SPL-HYPT-IR-ES, CI-HYT-IR-ES	
Durgapura	NIVT-1A, -1B, -3A AVT-IR-TS-TAS, AVT-IR-LS-TAS	
Delhi	NIVT-1A, -1B, -3A, -5A AVT-IR-TS-TAS, AVT-IR-LS-TAS, AVT-RI-TS-TAS SPL-HYPT-IR-ES, CI-HYT-IR-ES	

Trials not conducted/rejected by monitoring team: (All trials were conducted)

Centre	Trial	Remark
Jammu	AVT-IR-LS-TAS & NIVT-3A	Poor growth and patchy stand

Entries showing promising performance in breeding trials:

Trial	Entry
AVT-IR-TS-TAS	NW-TS-101, -104, -106
AVT-IR-LS-TAS	NW-TS-212
NIVT1A	N-119, N-124
NIVT1B	N-208, -209, -212
NIVT3A	N-412
NIVT5A	N-702, -709, -724
SPL-HYPT	HYPT-107
CI-HYT	HYT-5, -10, -18

Entries recommended for purification:

Trial	Entry	Remarks
AVT-IR-TS-TAS	NW-TS-105, -107, -109	Mixture/ off types /variation in plant height
AVT-IR-LS-TAS	NW-LS-203, -207, -210, -213, -215	
AVT-RI-TS-TAS	NW-RI-301, -309	
NIVT1A	N-113, -115, -118, -122, -126, -129, -134	
NIVT1B	N-206, -208, -210, -219, -226, -234, -235	
NIVT3A	N-403, -407, -411, -413, 431, -434	
NIVT5A	N-703, -711, -712, -721	
SPL-HYPT	HYPT-109, -10, -113	
CI-HYT	HYT-1, -17, -18, -22, -23	

Entries recommended to be dropped from further testing:

Trial	Entry	Remarks
NIVT1A	N-130	Segregation for plant height / maturity
NIVT1B	N-223, -229, -231	
NIVT3A	N-404, -424 and -429	
NIVT5A	N-705, -708, -719	
CI-HYT	HYT-8 and -12	

Report on Agronomical Trials:

Centres	Name of the trial	Remarks
Jammu	IR-TAS-DOS, SPL-1, SPL-4	All trials were nicely conducted and well managed. Treatment effects were quite visible. In general, very late sowing has poor crop stand due to late winter rains.
Gurdaspur	IR-TS-DOS, SPL-IR-ES-HYT, SPL-1, SPL-4	
Ludhiana	IR-TS-DOS, SPL-IR-ES-HYT, SPL-1, SPL-4	
Hisar	IR-TS-DOS, SPL-IR-ES-HYT, SPL-1, SPL-4	
Durgapura	IR-TS-DOS, SPL-IR-ES-HYT, SPL-1, SPL-4	
Delhi	IR-TS-DOS, SPL-IR-ES-HYT, SPL-1, SPL-4	

Report on Pathological Nurseries:

The pathological nurseries such as IPPSN, PPSN, EPPSN, LSSN, KBSN were conducted nicely at all the locations viz: Jammu, Gurdaspur, Ludhiana, Hisar, Durgapura and Delhi. The inoculum load and disease development especially on the infectors was satisfactory.

Report on Physiology Trials

MLHT-1 was properly conducted at Ludhiana, Hisar and Durgapura locations.

North Eastern Plains Zone		
Period	Team-I	Centers visited
12-17 th March, 2020	Drs CN Mishra, Charan Singh, OP Gangwar, HR Saharan, SP Singh, Bhumesk Kumar, Anirban Majhi, VC Dhyani	Ranchi, Sabour, IARI-Pusa, RPCAU-Pusa, Varanasi, Ayodhya, Deegh, Kanpur and Araul

Breeding trials allocated & monitored:

Centre	Trial	Remark
Ranchi	AVT-IR-TS, AVT-RI-TS, NIVT-1A, -1B, -3A & -5A	Good except NIVT-1A
Sabour	AVT-IR, AVT-RI, -1A, -1B, -3A & -5A	Good
IARI-Pusa	AVT-IR-, AVT-RI, NIVT-1A, -1B, -3A & -5A	Good except NIVT5A
RPCAU-Pusa	AVT-IR, AVT-RI, NIVT-1A, -1B, -3A & -5A	Very Good
BHU Varanasi	AVT-IR-TS-TAS, AVT-RI-TS-TAS, -1A, -1B, -3A & 5A	Good
Ayodhya	AVT-IR, AVT-RI, NIVT-1A, -1B, -3A & -5A	Good except AVT-RI and NIVT-5A
Deegh	AVT-RI-TS	Very Good
Kanpur	AVT-IR, AVT-RI, NIVT-1A, -1B, -3A & -5A	Very Good
Araul	AVT-IR	Very Good

Trials not conducted/rejected by monitoring team:

Centre	Trial	Remark
Ranchi	NIVT-1A	Rejected due to rat damage in both replications
IARI-Pusa	NIVT-5A	Rejected due to heavy weed infestation
Ayodhya	AVT-RI and NIVT-5A	Rejected as appeared to be late sown

Entries recommended for purification

Trial	Entry	Remarks
NIVT-1A	N-101, -106, -112, -126 and -136	Mixture/off types /variation in plant height
NIVT-1B	N-204, 205, 208, 211, 215, 218, 220 and 233	
NIVT-5A	N-701, -704, -707, -710	
NIVT-3A	N-402, -407 and -432	

Entries recommended to be dropped from further testing:

Trial	Entry	Remarks
NIVT-1A	N-115, 118, 121 and 128	Segregation for height/ ear/ maturity
NIVT-1B	N-202, 203, 206, 209, 217, 219, 225 and 227	
NIVT-5A	N-705, 712 and 719	
NIVT-3A	N-405, 413, 422 and 429	

Entries showing high disease incidence in breeding trials:

Trial	Entry	Sabour	RPCAU Pusa	BHU	Kanpur
Leaf rust					
NIVT-1A	N-108	70S	5S	40S	-
	N-112	40S	-	10S	-
	N-118	80S	60S	60S	20S
	N-128	40S	-	-	-
NIVT-1B	N-223	60S	40S	80S	60S
	N-225	60S	40S	20S	-
	N-230	20S	60S	10S	20S
	N-235	40S	-	20S	40S
NIVT-5A	N-708	60S	60S	-	10S

Trial	Entry	Sabour	RPCAU Pusa	BHU	Faizaba
Leaf blight					
NIVT-1A	N-107	68	57	-	57
	N-121	78	-	-	-
	N-123	78	-	57	-
	N-132	68	-	68	57
NIVT-1B	N-203	-	68	68	-
	N-222	57	57	57	68
NIVT-5A	N-720	-	-	-	68

Report on Agronomical Trials:

1. The trial NE-RIR-TS-TAS, was satisfactorily conducted at all the locations viz., Ranchi, Sabour, IARI Pusa, RPCAU-Pusa, Varanasi, Faizabad and Kanpur.
2. The SPL-1 trial was conducted at IARI Pusa and RPCAU-Pusa only. At IARI the first date for sowing was left and at RPCAU-Pusa the layout was wrong, hence the trial was rejected at RPCAU-Pusa.
3. The SPL-2 trial was allotted and conducted satisfactorily at Ayodhya centre only.
4. The SPL-3 trial was not conducted at Kanpur centre.
5. The SPL-4 trial was not conducted at IARI Pusa and effect of growth hormones was not observed on plant height at RPCAU Pusa, Varanasi and Kanpur, hence the trial at these three centres are rejected
6. The SPL-5 trial was conducted at Ranchi centre only.

Report on Pathological Nurseries:

1. In LBSN and NIVTs, good development of leaf blight was observed at all centres.
2. In PPSN the brown rust infection was high at Kanpur and Ayodhya in border rows.
3. No incidence of shootfly was observed at Kanpur centre.

Report on Physiology Trials

1. The MLHT-1 at allotted centres was conducted satisfactorily.
2. In MLHT the recording on physiological traits was not being done at Ranchi centre
3. The DTSN at all allocated centres was conducted satisfactorily.

Special comments, if any

The IARI Pusa and RPCAU Pusa centres are located in the close vicinity, so the trials may either be allotted to one location or different trial may be allotted at these two centres of same location.

1. Higher incidence of brown rust was observed naturally at Sabour, Pusa and Varanasi, so PPSN centres for brown rust should be increased in the zone. At present it is at Kanpur and Ayodhya only.
2. The Ayodhya centre is doing satisfactorily all the nurseries and trial (LBSN, MDSN, PPSN IPPSN, TPN SARC and NIVT) of pathology; the work load may be distributed equally in this zone.
3. The team also visited the seed production programme at different centres, the nucleus seed production (NSS-I) of the varieties namely K1006 and NW5054 was not conducted at allotted centres.
4. The monitoring team was in of consideration that the centres and team size may be reduced.

North Eastern Plain Zone		
Period	Team-II	Centers visited
1-7 th March, 2020	Drs RS Chhokar, Hanif Khan, PL Kashyap, SK Bishnoi, PK Bardoloi, Surya Prakash, SV Singh, Dhiman Mukharjee	Kalyani, Burdwan, Manikchak, Majhian, Coochbehar, Shillongani, Biswanath Chariali

Breeding trials allocated & monitored:

Centre	Trial	Remark
Kalyani	NIVT-1A, NIVT-1B, NIVT-3A, NIVT-5A, AVT-IR, AVT-RI	Satisfactorily conducted
Burdwan,	AVT-IR, AVT-RI	Satisfactorily conducted
Manikchak	NIVT-1A, NIVT-1B	Satisfactorily conducted
Majhian	AVT-IR, AVT-RI	Poor plant population
Coochbehar	NIVT-1A, NIVT-1B, NIVT-3A, NIVT-5A, AVT-IR, AVT-RI	Satisfactorily conducted
Shillongani	NIVT-1A, NIVT-1B, NIVT-3A, AVT-IR, AVT-RI	Satisfactory but heavy lodging in NIVT-1A, NIVT-1B, AVT-IR-TS-TAS, AVT-RI-TS-TAS. Layout plan for AVT-IR-TS-TAS and AVT-RI-TS-TAS not followed. NIVT-3A was sown on 21.11.2019 (20 days earlier than the prescribed date)
Biswanath Chariali	AVT-IR, AVT-RI	AVT-IR satisfactorily conducted

Trials rejected by monitoring team:

Centre	Trial	Remarks
Majhian	AVT-RI	Only 10 rows of 6m planted instead of 12. Very poor plant stand.
Biswanath Chariali	AVT-RI	Poor plant stand, some of the plots had < 20% plants, heavy damage by rats and animals

Entries recommended for purification:

Trial	Entry	Remarks
NIVT-1A	N-102, 111, 118, 121, 124	Off-types were found & need purification
NIVT-1B	N-202, 205, 208, 213, 219, 222, 225, 226	
NIVT-3A	N-408, 416, 417, 419	
NIVT-5A	N-703, 705, 707, 713, 719	
AVT-IR-TS-TAS	NE-IR-104, -106	
AVT-RI-TS-TAS	NE-RI-304, -305	

Entries recommended to be dropped from further testing:

Trial	Entry	Remarks
NIVT-1B	N-217	High variation for plant height, ear characteristics, and maturity duration
NIVT-3A	N-413	High variation for waxiness, ear characteristics, maturity duration and spike colour

Entries found promising:

Trial	Entry
NIVT-1A	N-116, 117, 126, 131, 136
NIVT-1B	N-216, 230, 234
NIVT-3A	N-401, 424, 431
NIVT-5A	N-706, 714, 724, 725
AVI-IR-TS-TAS	N-102, 103, 106

Entries exhibiting higher diseases incidence / insect infestation:

Trial	Entry
NIVT-1A	N-104 (BR, LB), N-111 (LB), N-118 (BR), N-124 (LB), N-125 (LB), N-130 (LB), N-131 (LB), N-135 (LB)
NIVT-1B	N-202 (LB), N-204 (LB), N-212 (LB), N-213 (LB), N-217 (LB), N-218 (LB), N-223 (BR), N-224 (LB), N-227 (LB), N-230 (LB), N-231 (LB), N-235 (BR, LB)
NIVT-5A	N-702 (LB), N-720 (LB), N-722 (LB)
AVI-IR-TS-TAS	N-101 (LB)
AVI-RI-TS-TAS	N-301 (BR, LB)

Note: BR-denotes brown rust (>30S) an LB (>56) denotes leaf blight at some of the locations

Report on Agronomical Trials:

SN	Trials	Remarks
1	RIR-TS	Conducted at four locations (Kalyani, Burdwan, Coochbehar and Shillongani) and at all locations trials were conducted satisfactorily. In general response was observed up to two irrigations. Visually genotype NE-RI-305 was looking superior across irrigation levels
2	SPL-1	Conducted at three locations (Kalyani, Burdwan, and Shillongani) and conducted satisfactorily. In Burdwan, the first date of sowing was not taken due to delayed rice harvesting. Phenological differences in wheat crop response to date of sowing observed at all locations except Kalyani.
3	SPL-2	Conducted properly at Coochbehar
4	SPL-4	This special trial was conducted at four locations (Kalyani, Burdwan, Coochbehar and Shillongani) and at all locations the trial was in good conditions
5	SPL-5	Conducted only at Coochbehar and trial was in good condition

Report on Pathological Nurseries:

The pathological nurseries were conducted well and there was sufficient level of disease in the infector lines. Separate monitoring was conducted for PPSN and IPPSN.

Central Zone		
Period	Team-I	Centres Visited
18-21 Feb., 2020	Drs. SV Saiprasad, Sindhu Sareen, A.G. Pansuriya, K. Venkatesh, Divya Ambati, MA Gud and SI Patel	Udaipur, SK Nagar, Vijapur, Anand, Arnej, Dhandhuka, Amreli, Sanosara and Junagadh

Breeding trials allocated & monitored:

Centre	Trials	Remarks
Udaipur	AVT-IR-TS, AVT-RI-TS, AVT-LS, NIVT-2, NIVT-3B, NIVT-4 and NIVT-5B	Properly conducted
S K Nagar	AVT-IR-TS, AVT-LS and NIVT-4	
Vijapur	AVT-IR, AVT-RI, AVT-LS, NIVT-2, NIVT-3B, NIVT-4 and NIVT-5B	
Dhandhuka	AVT-RI, NIVT-5B	
Arnej	NIVT-5B	
Amreli	AVT-IR, AVT-RI	
Sanosara	AVT-RI and AVT-LS	
Anand	AVT-IR, AVT-LS	
Junagadh	AVT-IR-TS, AVT-RI-TS, AVT-LS, NIVT-2, NIVT-3B, NIVT-4 and NIVT-5B	

Trials not conducted / rejected by monitoring team: None

Entries recommended for purification:

Trial	Entry	Remarks
AVT-IR	CZ-TS- 101 and 105	Mixture of plant types was observed
AVT-RI	CZ-TS- 306, 307	Mixture of plant types was observed
NIVT-2	N-304, 311, 314, 335	Mixture of plant type was observed
NIVT-3B	N-502, 512, 518, 522, 524	Variation for maturity
NIVT-4	N-602, 619, 621	Variation for height, waxiness, awn colour
NIVT-5B-RI	N-801, 807, 813	Variation for maturity, awn colour

Entries recommended to be dropped from further testing:

Trial	Entry	Remarks
NIVT-2	N-316, 324, 330, 334	Indeterminate, ear type, waxiness and maturity
NIVT-3B	N-503, 506, 511	Segregation for height, maturity, ear type
NIVT-4	N-601	<i>T. aestivum</i> entry with segregation for height
	N-605, 617, 620	Segregation for height and maturity
NIVT-5B	N-808, 810, 817, 818, 823, 824	Segregation for height, maturity, ear type

Report on Agronomy trials: all allocated trials conducted properly at Udaipur, Vijapur and Junagadh

Centre	Trial	Remarks
Udaipur	SPL-1, SPL-4, SPL-6 and IR-DOS	All trials properly conducted
Vijapur	SPL-1, SPL-4, SPL-6 and IR-DOS	
Dhandhuka	SPL-6	
Junagadh	SPL-1, SPL-4, SPL-6 and IR-DOS	

Report on Physiology Trials: all allocated trials conducted properly

Trial	Centre	Trial	Centre
DTSN	Junagadh	MLHT-2	Udaipur, Vijapur, Junagadh

Entries showing promising performance in breeding trials:

Trial	Entry
NIVT-2	N-302, 306, 308, 315, 322 and 328
NIVT-3B	N-504, 515, 519, 523, 525
NIVT-4	N-611, 613, 618, 623, 625
NIVT-5B	N- 803, 809, 811, 815, 816, 819, 820, 821, 825

Report on Pathological Nurseries:

Nursery	Centre	Remark
PPSN	Vijapur	Development of stem rust and leaf rust is excellent. None of the entry in AVT trial was having more than 20S reaction to stem rust however four NIVT entries (18, 22, 40, 216) recorded >20S reaction to stem rust. Only one entry (NIVT- 233) recorded 40S reaction to leaf rust on 19 th Feb,2020.
	Junagadh	Good establishment of leaf rust infection was observed in infector rows however stem rust development is in progress. Three entries of AVT (13, 79, 126) and six NIVT entries (16, 18, 170, 214, 219, 233) shown >20S reaction to leaf rust on 21 st Feb,2020.

Special comments, if any:

1. Constitution of three zonal monitoring teams instead of two now may help in efficient monitoring of centres with same expenditure and can cover more centres
2. Released durum wheat varieties may be demonstrated in Bhal Track area of Gujarat with the help of Arnej and Dhandhuka centres.

Central Zone		
Period	Team -II	Centres Visited
26-29 Feb., 2020	Drs. BS Tyagi, KC Sharma, JM Patel, AP Agrawal, Dinesh Pandey, BC Game, VK Vikas, Yashwantha kumar KJ and Satish Kumar	Raipur, Bilaspur, Jabalpur, Sagar, Sagar, Powarkheda and Indore

Breeding trials allocated & monitored:

Centre	Trials	Remarks
Raipur	AVT-IR-TS, AVT-IR-LS, NIVT-3B	Properly conducted
Bilaspur	AVT-IR-TS, AVT-RI-TS, AVT-IR-LS, NIVT-2, -3B and -5B	Properly conducted
Jabalpur	AVT-IR-TS, AVT-RI-TS, AVT-IR-LS, NIVT-2, -3B and -5B	Properly conducted except NIVT-5B
Sagar	AVT-IR-TS, AVT-RI-TS, AVT-IR-LS, NIVT-2 and -5B	All the trials were planted late and AVT-IR-LS was poor
Powarkheda	AVT-IR-TS, AVT-RI-TS, AVT-IR-LS, NIVT-2, -3B, -4 and -5B	Properly conducted
Bhopal	AVT-IR-TS and AVT-RI-TS	Properly conducted
Indore	AVT-IR-TS, AVT-RI-TS, AVT-IR-LS, NIVT-2, -3B, -4 and -5B	Properly conducted

Trials not conducted / rejected by monitoring team:

Centre	Trial	Reason
Jabalpur	NIVT-5B	Most of the entries were damaged by rats
Sagar	AVT-RI-TS	Late Sown and two blocks were damaged due to water-logging and shade

Entries recommended for purification:

Trial	Entry	Remarks
AVT-IR-TS	CZ-TS-101	Mixture of plant types
NIVT-2	N-304, 311, 316, 320, 328, 335	Mixture of plant type
NIVT-4	N-617, 620	Variation for height, waxiness, awn colour
NIVT-5B	N-802, 808, 813, 821, 823	Variation for maturity, awn colour

Entries recommended to be dropped from further testing:

Trial	Entry	Remarks
NIVT-2	N-324	Indeterminate, ear type, waxiness and maturity

NIVT-3B	N-502, 503, 511	Segregation for height, maturity, ear type
NIVT-4	N-601	<i>T. aestivum</i> entry with segregation for height
	N-605	Segregation for height and maturity
NIVT-5B	N- 810, 824	Segregation for height, maturity, ear type

Report on Agronomy trials: all allocated trials conducted properly at Bilaspur, Jabalpur, Powarkheda and Indore

Centre	Trial	Remarks
Bilaspur	SPL-1, SPL-4, SPL-6 and IR-DOS	All trials properly conducted
Jabalpur	SPL-1, SPL-4 and IR-DOS	All trials properly conducted
Powarkheda	SPL-1, SPL-4 and IR-DOS	Trials were conducted properly However in SPL-1 and SPL-4, due to faulty imposition of treatments the trials were rejected.
Indore	SPL-1, SPL-4 and IR-DOS	SPL-1 was not conducted. SPL-4 and IR-DoS were conducted properly

Report on Physiology Trials: all allocated trials conducted properly

Trial	Centre	Trial	Centre
DTSN	Indore	MLHT-2	Indore

Entries showing promising performance in breeding trials:

Trial	Entry
NIVT-2	N-308, 317, 332
NIVT-3B	N-509, 510, 514, 525
NIVT-4	N-611, 624
NIVT-5B	N- 805, 811, 819, 825
AVT-IR-TS	CZTS 103, 107, 108, 109
AVT-RI-TS	CZRI 307, 308

Report on Pathological Nurseries:

Nursery	Centre	Remark
PPSN	Powarkheda	Development of stem rust was excellent. Leaf rust infection was low. AVT entries 13, 21 and 42 were having high reaction for stem rust.
	Indore	Good establishment of leaf rust and stem rust infection was observed in infector rows. AVT entries with high infection for stem rust were 13, 21, 29, 36, 42, 61 and 102.
IPPSN	Powerkheda	Development of stem rust was excellent. Leaf rust infection was low.
	Indore	Good establishment of leaf rust and stem rust infection was observed in infector rows.
MDSN and EPPSN	Indore	Conducted properly

Special comments, if any:

1. Trial conducting centres should report anomalies if any immediately to the zonal coordinator or IIWBR for timely correction of the same.
2. Trials at Sagar centre were planted very late and a final decision in this regards may be taken.
3. The trial conduction personnel may be given appropriate training for planting of trials, recording data, harvesting reporting.

Peninsular Zone		
Period	Team -I	Centres Visited
4-7 Feb., 2020	Drs. SK Singh, SC Tripathi, Sanjay Singh, SS Dodake, Suma Biradar, Gurudatt M. Hegde, Pramod Prasad, Gopalareddy K and GP Singh	Pune, Mahabaleshwar, Karad, K Digraj, Kolhapur and Nippani, Kalloli, Arbhavi, Ugar, Mudhol, Bagalkot and Dharwad

Coordinated breeding trials allocated, conducted & monitored:

Centre	Trials
Pune	AVT-IR-TS, AVT-IR-LS, AVT-RI-TS, SPL-IR-TS-Dic, NIVT 2, 3B, 4 and 5B
Karad	AVT-IR-TS-TAD, AVT-IR-LS-TAS, AVT-RI-TS-TAD, SPL-IR-TS-Dic, NIVT 3B
Kolhapur	AVT-IR-TS-TAD, AVT-IR-LS-TAS, SPL-IR-TS-Dic, NIVT 3B
Kasbe Digraj	SPL-IR-TS-Dic
Nippani	AVT-IR-TS-TAD, AVT-IR-LS-TAS, AVT-RI-TS-TAD, NIVT 2, 3B, 4 & 5B
Kalloli	AVT-IR-TS-TAD, AVT-IR-LS-TAS, SPL-IR-TS-Dic
Arbhavi	AVT-IR-TS-TAD, AVT-IR-LS-TAS, SPL-IR-TS-Dic
Ugar	AVT-IR-TS-TAD, AVT-IR-LS-TAS, SPL-IR-TS-Dic, NIVT 2 & 4
Mudhol	AVT-IR-TS-TAD, AVT-IR-LS-TAS, SPL-IR-TS-Dic
Bagalkot	AVT-RI-TS-TAD, NIVT 5B
Dharwad	AVT-IR-TS, AVT-IR-LS, AVT-RI-TS, SPL-IR-TS-Dic, NIVT-2, -3B, -4 & -5B
Remarks	All the allocated trials were conducted satisfactorily at the locations monitored. The NIVT-4 trial could not be monitored due to wrong layout problem.

Trials not conducted / rejected by monitoring team:

Centre	Trial	Remark
Karad	AVT-IR-TS, AVT-TS-RI & SPL-Dic	These trials were rejected due to very late sowings (Dec 7, 2019) as compared to other centres in the zone latest by Nov 19, 2019
Kalloli	AVT-IR-LS	Rejected due to faulty layout with no randomization
Nippani	AVT-TS-RI	Very poor plant stand
Dharwad	NIVT-2, NIVT 3B	Rejected due to very high incidence of shoot fly attack.

Entries recommended for purification:

Trial	Entry	Remark
AVT-IR-TS-TAD	PZ-TS-103, 107	Off-types
AVT-IR-LS-TAS	PZ-LS-203, 207, 209	
AVT-RI-TS-TAT	PZ-RI-307	
NIVT 2	N-302, 303, 304, 310, 311, 318, 323, 330, 331	
NIVT 3B	N-518	
NIVT-5B	N-807, 812, 814, 823, 824	
Spl-Dic	Dic-107	

Entries recommended to be dropped from further testing:

Trial	Entry	Remark
NIVT 2	N-322, 324, 335	High segregation for multiple traits.
NIVT -3B	N-506	
NIVT 5B	N-810, 818	

Entries exhibiting higher diseases incidence / insect infestation: Very low infestation of black rust was observed in PZ-TS-107 at Kalloli. However, brown rust was not observed anywhere at the centres monitored.

Report on Agronomical Trials:

Centre	Trial	Remark
Pune	PZ-Agr-IR-DOS, PZ-Agr-RIR, SPL-4 (Optimization of N doses) and SPL-5 (Precision N management using NDVI sensor)	Conducted satisfactorily
Dharwad		

Report on Pathological Nurseries:

Centre	Nursery	Remarks
Pune	PPSN	Stem rust was not appeared and leaf rust incidence was good
	WDMN	Conduction was satisfactory
Mahabaleshwar	PPSN	High incidence of leaf rust and low incidence of stem rust
Ugar Khurd	WDMN	Conduction was satisfactory
Dharwad	PPSN	High incidence of leaf rust and low incidence of stem rust

Report on Physiology and Quality Trials/nurseries:

MLHT and DTSN at allocated centres namely Pune and Dharwad were conducted satisfactorily. However, MLHT and QCWBN at Dharwad was rejected due to very high infestation of shoot fly.

Special comments, if any

1. Conduction was very good at the centres. The issue of timely fund release for voluntary centres was discussed.
2. The crop performance at farmers' fields was good.

Peninsular Zone		
Period	Team-II	Centres Visited
10-14 Feb., 2020	Drs. DA Gadekar, RP Meena, Kiran B Gaikwad, VS Baviskar, KK Mishra, J Chaudhary, Udai Reddy and Vikas Gupta	Nashik, Niphad, Savalivihir, Pravarnagar, Parbhani, Washim, Akola

Breeding trials allocated & monitored:

Centre	Trials	Remarks
Nashik	AVT-IR-TS, AVT-RI-TS, AVT-IR-LS	Although trials were planted late due to untimely rains but the crop stand, stage at the time of monitoring and expression was good indicating proper trial conduction therefore all the trials were accepted.
Niphad	AVT-IR-TS, AVT-RI-TS, AVT-IR-LS, NIVT-2, -3B, -4 and -5B	
Savalivihir	AVT-RI-TS	
Pravarnagar	AVT-IR-TS, AVT-IR-LS	
Parbhani	AVT-IR-TS, AVT-RI-TS, AVT-IR-LS, NIVT-2, -3B and -5B	
Akola	AVT-IR-TS, AVT-IR-LS, NIVT-2, -3B, -4 and -5B	

Trials not conducted / rejected by monitoring team: Nil**Entries recommended for purification:**

Trial	Entry	Remarks
AVT-IR-TS	PZ-TS-103, 108	Few off-type plants were observed
AVT-IR-LS	PZ-LS- 204, 210, 207	Variation in plant height, peduncle attitude and ear head observed
AVT-RI-TS	PZ-RI-310	Few off-type plants were observed
NIVT-2	N-303, 304, 314, 322	Mixture of plant type, spike was observed
NIVT-3B	N-502, 512, 517, 522	Ear head variation, off- types
NIVT-4	N-602, 619	Variation for height, pubescence variation
NIVT-5B-RI	N-803, 805, 817, 823	Variation for earhead, off-type plants

Entries recommended to be dropped from further testing:

Trial	Entry	Remarks
NIVT-2	N-311, 316, 322, 324, 326,330, 334, 335	Variation for ear type, waxiness, and maturity
NIVT-3B	N-503, 506, 511, 518	Plant height and ear type variation
NIVT-4	N-601	<i>T. aestivum</i> entry with mixture indicating segregation
	N-605, 612, 620	Segregation for height and waxiness
NIVT-5B	N-808, 810, 817, 818, 824	Segregation for height and maturity

Report on Agronomy trials:

Centre	Trial	Remarks
Niphad	IR-DOS, RIR-TS-TAS	Trial conduct was excellent, good plant population
Washim	IR-DOS, RIR-TS-TAS	No statistical design was followed and plant stand was less and hence rejected.
Akola	IR-DOS, RIR-TS-TAS	No plant population in two replications and hence trial rejected.

Report on Physiology Trials: All allocated trials conducted properly.

Entries showing promising performance in breeding trials:

Trial	Entry
NIVT-2	N-302, 317, 321 and 331
NIVT-3B	N-504, 514, 519 and 523
NIVT-4	N-613, 623 and 625
NIVT-5B	N- 809, 811, 815, 819 and 825

Report on Pathological Nurseries:

Epiphytotic creation for black and brown rusts on infector lines around pathological nurseries was very good at Niphad centre.

Name of nursery/ trial	Brown Rust (SN of entries and Rust score)
AVT material in PPSN at Niphad	79 - 20MS, 107- 20MS, 119- 20MS,126- 20MS
NIVT Materials in PPSN at Niphad	18- 60S, 49- 20MS, 66- 20MS, 95- 20MS,150-20MS, 216-20MS
NIVT-4	N-601- 80S

Note. At other centres there was no rust incidence.

Special comments, if any:

1. New centers in coastal areas of Goa and Maharashtra may be proposed.
2. Agronomy personnel working at coordinating centers should be considered for training.