

1514-IVT/AVT-ES-RF-TAS-NHZ, 2015-16
Locationwise Mean Yield (q/ha)

SN	Variety	Code	HP								Uttarakhand						
			Malan			Shimla			Una-KVK		Bajaura			Majhera			
			Yield	Rk	G	Yield	Rk	G	Yield	Rk	G	Yield	Rk	G	Yield	Rk	G
1.	HS 623	NHES-1501	15.6	12	0	6.1	12	0	26.2	2	1	32.4	1	1	13.9	12	0
2.	HS 622	NHES-1502	17.9	9	0	22.9	7	0	12.6	12	0	18.9	12	0	17.4	10	0
3.	VL 1009	NHES-1505	23.4	4	0	29.8	3	1	17.0	9	0	24.4	8	0	22.4	4	1
4.	HPW 423	NHES-1506	23.0	5	0	15.6	10	0	23.5	4	1	28.8	3	0	19.6	7	0
5.	HPW 424	NHES-1507	16.7	11	0	23.0	6	0	18.9	7	0	20.6	11	0	22.5	3	1
6.	HS 628	NHES-1508	21.9	6	0	21.0	9	0	15.7	10	0	26.8	5	0	15.2	11	0
7.	UP 2954	NHES-1509	17.0	10	0	11.0	11	0	23.8	3	1	21.5	10	0	17.9	9	0
8.	VL 1008	NHES-1510	28.5	2	1	27.3	4	0	21.4	5	0	24.6	7	0	22.1	5	1
9.	VL 1010	NHES-1511	25.9	3	0	30.7	1	1	21.2	6	0	28.0	4	0	20.9	6	0
10.	HPW 251 (C)	NHES-1503	19.0	7	0	30.1	2	1	13.4	11	0	21.9	9	0	23.3	2	1
11.	VL 829 (C)	NHES-1504	19.0	7	0	25.0	5	0	26.2	1	1	26.7	6	0	19.1	8	0
12.	HS 542 (C)	NHES-1512	29.8	1	1	22.7	8	0	18.8	8	0	32.2	2	1	26.4	1	1
G.M.			21.5			22.1			19.9			25.6			20.1		
S.E.(M)			0.848			0.804			0.964			0.862			1.683		
C.D.			2.4			2.3			2.7			2.5			4.8		
C.V.			9.7			8.9			10.8			6.7			18.8		
D.O.S. (d.m.y.)			9.10.2015			9.10.2015			9.10.2015			10.10.2015			10.10.2015		

Trials proposed & conducted = 7

Trials not reported (2) = Almora (LSM), Bara KVK (LSM)

IVT/AVT-ES-RF-TAS-NHZ, 2015-16
State and Zonal Mean Yield (q/ha)

SN	Variety	Code	HP			Uttarakhand			Zonal		
			Yield	Rk	G	Yield	Rk	G	Yield	Rk	G
1.	HS 623	NHES-1501	20.1	9	0	13.9	12	0	18.8	10	0
2.	HS 622	NHES-1502	18.1	12	0	17.4	10	0	17.9	12	0
3.	VL 1009	NHES-1505	23.7	5	0	22.4	4	1	23.4	4	0
4.	HPW 423	NHES-1506	22.7	6	0	19.6	7	0	22.1	6	0
5.	HPW 424	NHES-1507	19.8	10	0	22.5	3	1	20.3	8	0
6.	HS 628	NHES-1508	21.3	7	0	15.2	11	0	20.1	9	0
7.	UP 2954	NHES-1509	18.3	11	0	17.9	9	0	18.3	11	0
8.	VL 1008	NHES-1510	25.5	3	1	22.1	5	1	24.8	3	1
9.	VL 1010	NHES-1511	26.4	1	1	20.9	6	0	25.3	2	1
10.	HPW 251 (C)	NHES-1503	21.1	8	0	23.3	2	1	21.5	7	0
11.	VL 829 (C)	NHES-1504	24.2	4	0	19.1	8	0	23.2	5	0
12.	HS 542 (C)	NHES-1512	25.9	2	1	26.4	1	1	26.0	1	1
G.M.			22.3			20.1			21.8		
C.D.			1.2			4.8			1.4		

Northern Hills Zone

Summary of Disease Data and Agronomic Characteristics

Trial: IVT/AVT-RF-ES-TAS-NHZ, 2015-16

SN	Variety	Code	Disease Reactions				Agronomic Characteristics							Grain Characteristics			
			YI	ACI	Br	PM	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Thr.	Col.	Tex.	TGW.R	TGW.M
1.	HS 623	NHES-1501	40S	13.8	0	5	75-141	112	168-211	187	56-96	80	Ey-M	A	SH	36-52	46
2.	HS 622	NHES-1502	tR	0.1	0	7	78-157	121	162-211	187	53-102	81	Ey-M	A	SH	29-53	42
3.	VL 1009	NHES-1505	15S	6.3	0	7	123-158	140	179-213	195	60-99	81	M	A	SH	29-44	39
4.	HPW 423	NHES-1506	20S	6.3	0	7	82-160	126	169-212	190	51-100	80	M	A	SH	26-52	39
5.	HPW 424	NHES-1507	10S	7.5	0	7	79-148	116	170-211	188	54-97	83	Ey	A	SH-H	34-52	44
6.	HS 628	NHES-1508	5S	1.3	0	5	79-141	122	167-209	189	51-91	77	Ey-M	A	SH	25-46	37
7.	UP 2954	NHES-1509	40S	20.0	0	7	88-150	128	171-212	191	50-95	75	M	A	SH	30-54	41
8.	VL 1008	NHES-1510	40S	20.1	10S	7	123-160	142	179-213	196	60-101	83	Ey-M	A	SH	25-42	37
9.	VL 1010	NHES-1511	40S	17.5	0	8	88-150	130	171-219	193	56-106	83	Ey	A	SH	34-50	44
10.	HPW 251(C)	NHES-1503	60S	30.0	0	3	76-151	127	174-212	193	57-93	77	Ey-M	A	SH	27-46	39
11.	VL 829(C)	NHES-1504	40S	15.0	0	8	90-150	131	165-213	192	58-102	87	Ey-M	A	SH	35-50	44
12.	HS 542(C)	NHES-1512	40S	20.0	0	7	81-150	124	174-218	191	57-99	81	M	A	SH	35-53	45

1. Ancillary data from Almora, Majhera, Bajaura, Bara, Malan, Shimla and Una.
2. Yellow rust data from Almora, Bajaura, Malan and Una; Brown rust data from Malan.
3. Powdery mildew data from Almora, Bara, Malan and Una.

Individual Station Rust Data

SN	Variety	Code	Almora	Bajaura	Una	Malan	
			YI	YI	YI	YI	Br
1.	HS 623	NHES-1501	0	10S	40S	5S	0
2.	HS 622	NHES-1502	0	tR	0	0	0
3.	VL 1009	NHES-1505	0	10S	0	15S	0
4.	HPW 423	NHES-1506	0	0	20S	5S	0
5.	HPW 424	NHES-1507	10S	10S	5S	5S	0
6.	HS 628	NHES-1508	0	5S	0	0	0
7.	UP 2954	NHES-1509	0	20S	20S	40S	0
8.	VL 1008	NHES-1510	0	tR	40S	40S	10S
9.	VL 1010	NHES-1511	0	10S	40S	20S	0
10.	HPW 251(C)	NHES-1503	0	60S	0	60S	0
11.	VL 829(C)	NHES-1504	0	20S	0	40S	0
12.	HS 542(C)	NHES-1512	0	40S	0	40S	0

1513-IVT/AVT-RI-LS-TAS-NHZ, 2015-16
Locationwise Mean Yield (q/ha)

SN	Variety	Code	Himachal Pradesh				Manipur	West Bengal												
			Dhaulakuan		Malan		Shimla		Bajaura		Imphal		Kalimpong							
			Yield	Rk	G	Yield	Rk	G	Yield	Rk	G	Yield	Rk	G	Yield	Rk	G			
1.	HS 625	NHLS-1501	26.8	9	0	29.8	8	0	22.4	3	1	35.2	7	0	17.3	5	0	16.1	5	0
2.	HPW 433	NHLS-1502	27.9	6	0	33.8	2	1	22.8	2	1	38.3	5	1	16.8	6	0	15.6	6	0
3.	HS 627	NHLS-1503	31.4	3	1	31.1	6	0	21.4	7	0	39.7	2	1	19.6	4	0	14.2	7	0
4.	HPW 432	NHLS-1504	23.0	11	0	26.6	9	0	21.5	6	0	36.7	6	0	14.9	9	0	17.3	3	0
5.	VL 3010	NHLS-1505	31.4	2	1	26.6	10	0	18.5	11	0	38.5	4	1	23.3	1	1	18.7	2	1
6.	HS 626	NHLS-1507	30.2	4	0	25.5	11	0	21.8	4	1	40.7	1	1	19.9	3	1	13.3	9	0
7.	VL 3012	NHLS-1508	27.3	7	0	35.1	1	1	21.1	8	0	33.2	10	0	13.6	10	0	11.3	11	0
8.	UP 2955	NHLS-1509	27.2	8	0	30.9	7	0	19.4	9	0	29.7	11	0	15.3	8	0	16.8	4	0
9.	VL 3011	NHLS-1511	24.7	10	0	33.3	3	1	19.4	10	0	35.1	8	0	12.8	11	0	13.6	8	0
10.	VL 892 (C)	NHLS-1506	34.6	1	1	32.4	5	1	25.3	1	1	34.6	9	0	16.0	7	0	20.5	1	1
11.	HS 490(C)	NHLS-1510	28.2	5	0	33.0	4	1	21.6	5	0	38.7	3	1	20.9	2	1	12.7	10	0
G.M.			28.4			30.7			21.4			36.4			17.3			15.5		
S.E.(M)			1.288			1.342			1.297			1.296			1.290			0.850		
C.D.			3.7			3.8			3.7			3.7			3.7			2.5		
C.V.			7.7			7.4			10.3			6.0			15.5			10.4		
D.O.S. (d.m.y.)			5.12.2015			9.12.2015			7.12.2015			1.12.2015			10.12.2015			12.12.2015		

Trials proposed and conducted = 10

Trials not reported (4) = Ranichauri (RMT), Almora (LSM), Majhera (LSM), Gangtok (HCV)

IVT/AVT-RI-LS-TAS-NHZ, 2015-16
State and Zonal Mean Yield (q/ha)

SN	Variety	Code	HP			Manipur			West Bengal			Zonal		
			Yield	Rk	G	Yield	Rk	G	Yield	Rk	G	Yield	Rk	G
1.	HS 625	NHLS-1501	28.5	8	0	17.3	5	0	16.1	5	0	24.6	7	0
2.	HPW 433	NHLS-1502	30.7	3	1	16.8	6	0	15.6	6	0	25.9	5	1
3.	HS 627	NHLS-1503	30.9	2	1	19.6	4	0	14.2	7	0	26.2	2	1
4.	HPW 432	NHLS-1504	27.0	10	0	14.9	9	0	17.3	3	0	23.4	9	0
5.	VL 3010	NHLS-1505	28.7	7	0	23.3	1	1	18.7	2	1	26.2	3	1
6.	HS 626	NHLS-1507	29.6	5	0	19.9	3	1	13.3	9	0	25.2	6	0
7.	VL 3012	NHLS-1508	29.2	6	0	13.6	10	0	11.3	11	0	23.6	8	0
8.	UP 2955	NHLS-1509	26.8	11	0	15.3	8	0	16.8	4	0	23.2	10	0
9.	VL 3011	NHLS-1511	28.1	9	0	12.8	11	0	13.6	8	0	23.1	11	0
10.	VL 892 (C)	NHLS-1506	31.7	1	1	16.0	7	0	20.5	1	1	27.2	1	1
11.	HS 490 (C)	NHLS-1510	30.4	4	1	20.9	2	1	12.7	10	0	25.9	4	1
G.M.			29.2			17.3			15.5			25.0		
C.D.			1.8			3.7			2.5			1.4		

Northern Hills Zone

Summary of Disease Data and Agronomic Characteristics

Trial: IVT/AVT-RI-LS-TAS-NHZ, 2015-16

SN	Variety	Code	Disease Reactions			Agronomic Characteristics							Grain Characteristics			
			YI	ACI	PM	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Thr.	Col.	Tex.	TGW.R	TGW.M
1.	HS 625	NHLS-1501	30S	15.0	5	76-124	99	120-172	141	51-106	79	Ey-M	A	SH	29-50	36
2.	HPW 433	NHLS-1502	tS	0.3	7	80-122	97	119-167	143	57-118	85	M	A	SH	37-60	44
3.	HS 627	NHLS-1503	5S	1.2	6	78-124	99	119-170	142	52-105	82	M	A	SH-H	29-46	38
4.	HPW 432	NHLS-1504	20S	5.0	7	75-119	95	118-165	139	64-135	96	M	A	SH	30-61	46
5.	VL 3010	NHLS-1505	20S	7.0	6	72-122	96	119-172	141	48-105	76	Ey-M	A	SO-SH	34-51	41
6.	HS 626	NHLS-1507	5S	2.2	4	78-128	101	119-169	144	53-118	78	M	A	SH-H	31-52	38
7.	VL 3012	NHLS-1508	5S	1.0	4	82-124	100	120-170	144	57-109	79	M	A	SH	29-53	39
8.	UP 2955	NHLS-1509	20S	12.0	5	77-126	101	119-167	144	49-97	73	Ey-M	A	SH	34-54	42
9.	VL 3011	NHLS-1511	15S	7.0	4	75-122	100	120-173	144	52-116	77	M	A	SH	32-48	40
10.	VL 892(C)	NHLS-1506	40S	15.0	5	76-119	95	119-166	140	55-101	78	M	A	SH	30-60	40
11.	HS 490(C)	NHLS-1510	20S	6.2	4	76-126	100	120-169	144	62-113	87	Ey-M	A	SO-SH	35-50	44

1. Ancillary data from Almora, Majhera, Bajaura, Dhaulakuan, Malan, Shimla, Gangtok, Imphal and Kalimpong.
2. Yellow rust data from Almora, Bajaura, Dhaulakuan, Malan and Shimla.
3. Powdery mildew data from Almora and Malan.

Individual Station Rust Data

SN	Variety	Code	Almora	Bajaura	Dhaulakuan	Malan	Shimla
			YI	YI	YI	YI	YI
1.	HS 625	NHLS-1501	10S	30S	0	30S	5S
2.	HPW 433	NHLS-1502	tR	tR	0	tS	0
3.	HS 627	NHLS-1503	0	0	0	tS	5S
4.	HPW 432	NHLS-1504	5S	20S	0	0	0
5.	VL 3010	NHLS-1505	5S	10S	0	20S	0
6.	HS 626	NHLS-1507	0	5S	0	tS	5S
7.	VL 3012	NHLS-1508	0	5S	0	0	0
8.	UP 2955	NHLS-1509	10S	20S	0	20S	10S
9.	VL 3011	NHLS-1511	5S	15S	0	5S	10S
10.	VL 892(C)	NHLS-1506	5S	40S	10S	20S	0
11.	HS 490(C)	NHLS-1510	0	10S	tS	20S	0

**1515-AVT-RF-VHA-NHZ, Summer 2015
Locationwise and Zonal Mean Yield (q/ha)**

SN	Variety	Code	HP						Zonal		
			Dalang Maidan			Kukumseri			Yield	Rk	G
			Yield	Rk	G	Yield	Rk	G			
1.	HS 580	VHA-501	28.8	6	1	24.5	4	0	26.6	5	0
2.	VL 4001	VHA-502	26.4	7	0	25.3	3	0	25.8	6	0
3.	DBW 156	VHA-503	33.2	4	1	20.3	6	0	26.7	4	0
4.	HS 590	VHA-504	23.0	8	0	41.7	1	1	32.3	2	0
5.	VL 3002	VHA-506	33.2	3	1	10.4	8	0	21.8	8	0
6.	DBW 166	VHA-508	34.8	1	1	21.1	5	0	27.9	3	0
7.	HS 375 (C)	VHA-505	32.8	5	1	41.1	2	1	37.0	1	1
8.	HS 490 (C)	VHA-507	33.8	2	1	16.7	7	0	25.2	7	0
G.M.			30.7			25.1			27.9		
S.E.(M)			2.553			1.340			1.442		
C.D.			7.5			3.9			4.1		
C.V.			16.6			10.7					
D.O.S. (d.m.y.)			26.5.2015			28.5.2015					

Trials proposed = 7

Trials not conducted (2) = Leh-II, Kargil

Trials not reported (3) = Sangla (LSM), Leh-I (LSM) , Basar (TF)

Northern Hills Zone

Summary of Disease Data and Agronomic Characteristics

Trial: AVT-RF-VHA-NHZ, SUMMER 2015

SN	Variety	Code	Disease Reactions		Agronomic Characteristics							Grain Characteristics			
			YI	PM	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Thr.	Col.	Tex.	TGW.R	TGW.M
1.	HS 580	VHA-501	5S	3	65-96	78	116-128	121	66-92	77	Ey	A	SH-H	26-42	35
2.	VL 4001	VHA-502	40S	6	64-98	76	118-132	124	68-86	79	Ey	A	SH-H	38-47	42
3.	DBW 156	VHA-503	10S	0	65-96	77	120-130	124	68-87	79	Ey	A	SH-H	37-45	41
4.	HS 590	VHA-504	40S	6	64-92	75	118-132	126	64-91	79	Ey	A	SH	31-43	39
5.	VL 3002	VHA-506	20S	0	65-97	78	114-132	124	76-84	80	Ey	A	SH-H	41-43	42
6.	DBW 166	VHA-508	20S	0	64-94	76	116-125	121	63-80	71	Ey	A	SH	36-45	42
7.	HS 375 (C)	VHA-505	40S	4	63-101	77	118-132	124	78-92	85	Ey	A	SH-H	36-45	39
8.	HS 490 (C)	VHA-507	10MS	0	62-88	72	112-124	119	61-82	74	Ey	A	SH	38-58	46

1. Ancillary data from Dalang Maidan, Sangla and Leh-I.
2. Yellow rust data from Dalang Maidan and Kukumseri.
3. Powdery mildew data from Kukumseri.

Individual Station Rust Data

SN	Variety	Code	Dalang Maidan	Kukumseri
			YI	YI
1.	HS 580	VHA-501	5S	5MR
2.	VL 4001	VHA-502	40S	tR
3.	DBW 156	VHA-503	10S	tR
4.	HS 590	VHA-504	40S	tR
5.	VL 3002	VHA-506	20S	0
6.	DBW 166	VHA-508	20S	10MR
7.	HS 375 (C)	VHA-505	40S	5MR
8.	HS 490 (C)	VHA-507	10MS	0

1516-IVT-RF-TS-TAS-NHZ, 2015-16
Locationwise Mean Yield (q/ha)

SN	Variety	Code	Uttarakhand			HP						J&K		
			Almora			Malan			Shimla			Khudwani		
			Yield	Rk	G	Yield	Rk	G	Yield	Rk	G	Yield	Rk	G
1.	HPW 425	NHIVT-1501	17.1	20	0	24.3	3	0	24.1	15	0	43.1	7	0
2.	VL 2022	NHIVT-1502	18.5	18	0	15.3	20	0	21.0	23	0	30.7	19	0
3.	VL 2019	NHIVT-1503	22.3	4	1	23.9	4	0	23.5	16	0	25.8	22	0
4.	HPW 431	NHIVT-1504	19.0	16	0	15.2	21	0	24.1	13	0	31.4	17	0
5.	HPW 430	NHIVT-1505	20.5	8	0	20.8	11	0	28.2	4	1	44.1	5	0
6.	UP 2953	NHIVT-1506	22.9	3	1	14.3	23	0	21.3	22	0	44.3	4	0
7.	VL 2024	NHIVT-1507	19.1	14	0	24.6	2	0	28.5	3	1	34.9	15	0
8.	VL 2023	NHIVT-1508	20.4	9	0	22.8	5	0	23.3	17	0	44.5	3	0
9.	HPW 427	NHIVT-1509	11.5	24	0	18.8	14	0	25.4	9	0	33.6	16	0
10.	HS 616	NHIVT-1510	18.4	19	0	17.5	16	0	30.0	2	1	39.8	9	0
11.	HS 612	NHIVT-1511	25.6	1	1	27.7	1	1	27.8	6	1	37.9	13	0
12.	HPW 429	NHIVT-1512	19.1	15	0	21.2	9	0	27.1	7	1	31.4	18	0
13.	HPW 426	NHIVT-1514	17.0	21	0	19.1	12	0	28.0	5	1	42.7	8	0
14.	UP 2952	NHIVT-1515	20.3	10	0	19.0	13	0	20.4	24	0	23.9	23	0
15.	HS 615	NHIVT-1516	19.0	17	0	14.4	22	0	22.1	20	0	21.8	24	0
16.	HPW 428	NHIVT-1517	13.9	23	0	18.5	15	0	24.9	10	0	45.9	2	0
17.	HS 613	NHIVT-1518	20.1	11	0	21.4	8	0	24.5	11	0	37.0	14	0
18.	HS 614	NHIVT-1519	15.3	22	0	15.9	18	0	22.0	21	0	39.6	10	0
19.	HS 617	NHIVT-1520	19.5	12	0	14.1	24	0	22.3	18	0	28.2	20	0
20.	VL 2020	NHIVT-1522	22.1	5	1	22.3	7	0	24.2	12	0	38.0	12	0
21.	VL 2021	NHIVT-1523	23.0	2	1	15.8	19	0	30.4	1	1	43.9	6	0
22.	HS 618	NHIVT-1524	19.3	13	0	16.4	17	0	26.8	8	1	38.4	11	0
23.	HS 507 (C)	NHIVT-1513	20.8	7	0	21.0	10	0	22.1	19	0	49.1	1	1
24.	VL 907 (C)	NHIVT-1521	20.8	6	0	22.7	6	0	24.1	14	0	26.8	21	0
G.M.			19.4			19.5			24.8			36.5		
S.E.(M)			1.913			1.037			1.590			0.435		
C.D.			4.5			2.4			3.8			1.0		
C.V.			19.7			10.7			12.8			2.4		
D.O.S. (d.m.y.)			17.10.2015			31.10.2015			23.10.2015			30.10.2015		

Trials proposed = 7 Trial not conducted (1) = Wadura
Trials not reported (2) = Ranichauri (RMT), Dhaulakuan (LSM, HCV)

IVT-RF-TS-TAS-NHZ, 2015-16
State and Zonal Mean Yield (q/ha)

SN	Variety	Code	Uttarakhand			HP			J&K			Zonal		
			Yield	Rk	G	Yield	Rk	G	Yield	Rk	G	Yield	Rk	G
1.	HPW 425	NHIVT-1501	17.1	20	0	24.2	4	0	43.1	7	0	27.2	6	0
2.	VL 2022	NHIVT-1502	18.5	18	0	18.1	23	0	30.7	19	0	21.4	21	0
3.	VL 2019	NHIVT-1503	22.3	4	1	23.7	7	0	25.8	22	0	23.9	16	0
4.	HPW 431	NHIVT-1504	19.0	16	0	19.7	19	0	31.4	17	0	22.5	19	0
5.	HPW 430	NHIVT-1505	20.5	8	0	24.5	3	0	44.1	5	0	28.4	2	1
6.	UP 2953	NHIVT-1506	22.9	3	1	17.8	24	0	44.3	4	0	25.7	13	0
7.	VL 2024	NHIVT-1507	19.1	14	0	26.6	2	1	34.9	15	0	26.8	7	0
8.	VL 2023	NHIVT-1508	20.4	9	0	23.1	12	0	44.5	3	0	27.8	5	0
9.	HPW 427	NHIVT-1509	11.5	24	0	22.1	14	0	33.6	16	0	22.3	20	0
10.	HS 616	NHIVT-1510	18.4	19	0	23.7	6	0	39.8	9	0	26.4	10	0
11.	HS 612	NHIVT-1511	25.6	1	1	27.7	1	1	37.9	13	0	29.7	1	1
12.	HPW 429	NHIVT-1512	19.1	15	0	24.1	5	0	31.4	18	0	24.7	15	0
13.	HPW 426	NHIVT-1514	17.0	21	0	23.5	8	0	42.7	8	0	26.7	8	0
14.	UP 2952	NHIVT-1515	20.3	10	0	19.7	18	0	23.9	23	0	20.9	23	0
15.	HS 615	NHIVT-1516	19.0	17	0	18.2	21	0	21.8	24	0	19.3	24	0
16.	HPW 428	NHIVT-1517	13.9	23	0	21.7	15	0	45.9	2	0	25.8	11	0
17.	HS 613	NHIVT-1518	20.1	11	0	22.9	13	0	37.0	14	0	25.8	12	0
18.	HS 614	NHIVT-1519	15.3	22	0	18.9	20	0	39.6	10	0	23.2	18	0
19.	HS 617	NHIVT-1520	19.5	12	0	18.2	22	0	28.2	20	0	21.0	22	0
20.	VL 2020	NHIVT-1522	22.1	5	1	23.3	10	0	38.0	12	0	26.7	9	0
21.	VL 2021	NHIVT-1523	23.0	2	1	23.1	11	0	43.9	6	0	28.3	4	1
22.	HS 618	NHIVT-1524	19.3	13	0	21.6	17	0	38.4	11	0	25.2	14	0
23.	HS 507 (C)	NHIVT-1513	20.8	7	0	21.6	16	0	49.1	1	1	28.3	3	1
24.	VL 907 (C)	NHIVT-1521	20.8	6	0	23.4	9	0	26.8	21	0	23.6	17	0
G.M.			19.4			22.1			36.5			25.1		
C.D.			4.5			2.2			1.0			1.6		

Northern Hills Zone

Summary of Disease Data and Agronomic Characteristics

Trial: IVT-RF-TS-TAS-NHZ, 2015-16

SN	Variety	Code	Disease Reactions			Agronomic Characteristics							Grain Characteristics			
			YI	ACI	PM	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Thr.	Col.	Tex.	TGW.R	TGW.M
1.	HPW 425	NHIVT-1501	tS	0.4	2	100-164	121	149-228	183	71-120	93	Ey-M	A	SH	41-50	47
2.	VL 2022	NHIVT-1502	tS	0.4	4	115-170	128	154-224	181	63-102	81	Ey-M	A	SH	32-44	36
3.	VL 2019	NHIVT-1503	30S	10.1	5	114-175	136	155-226	185	82-108	92	Ey-M	A	SH	33-42	39
4.	HPW 431	NHIVT-1504	tR	0.1	3	110-171	128	156-228	185	78-119	97	Ey-M	A	SH	49-56	53
5.	HPW 430	NHIVT-1505	tR	0.1	5	101-167	125	156-227	184	61-112	89	Ey-M	A	SH	33-52	45
6.	UP 2953	NHIVT-1506	5S	1.7	3	112-169	128	154-227	182	66-110	84	Ey-M	A	SH	31-48	39
7.	VL 2024	NHIVT-1507	tS	0.4	6	109-176	129	152-228	183	69-107	88	Ey-M	A	SH	39-52	43
8.	VL 2023	NHIVT-1508	tR	0.1	6	109-173	130	153-223	183	71-104	86	Ey-M	A	SH	36-64	49
9.	HPW 427	NHIVT-1509	tR	0.1	6	103-173	124	154-227	183	64-135	95	M	A	SH	34-46	41
10.	HS 616	NHIVT-1510	tR	0.1	5	114-171	131	152-225	183	65-105	86	Ey-M	A	SH	36-46	41
11.	HS 612	NHIVT-1511	tS	0.4	4	114-174	134	156-226	184	62-114	91	Ey-M	A	SH	37-59	49
12.	HPW 429	NHIVT-1512	tR	0.1	5	104-164	124	151-227	183	64-108	87	Ey-M	A	SH	29-54	45
13.	HPW 426	NHIVT-1514	tS	0.4	5	104-166	124	151-226	182	70-132	95	Ey-M	A	SH	40-49	46
14.	UP 2952	NHIVT-1515	tS	0.4	6	111-178	131	152-225	183	56-101	80	Ey-M	A	SH	28-52	43
15.	HS 615	NHIVT-1516	tS	0.4	2	109-176	131	149-228	183	69-114	91	M	A	SH	33-52	42
16.	HPW 428	NHIVT-1517	tS	0.4	5	108-173	127	152-225	183	62-118	87	M	A	SH	31-52	41
17.	HS 613	NHIVT-1518	15S	5.1	4	111-178	133	147-227	184	70-110	89	Ey-M	A	SH	36-51	43
18.	HS 614	NHIVT-1519	10S	3.4	2	113-169	130	156-224	183	73-117	89	Ey-M	A	SH	35-50	43
19.	HS 617	NHIVT-1520	10S	4.7	4	107-169	128	158-223	183	71-108	91	M	A	SH	37-55	46
20.	VL 2020	NHIVT-1522	tR	0.1	5	111-175	132	152-227	184	68-103	85	Ey-M	A	SH	31-52	39
21.	VL 2021	NHIVT-1523	tR	0.1	4	113-172	130	155-228	184	57-107	82	Ey-M	A	SH	33-56	41
22.	HS 618	NHIVT-1524	tMS	0.3	4	109-169	130	153-228	184	75-122	94	Ey-M	A	SH	32-58	44
23.	HS 507(C)	NHIVT-1513	10S	5.1	5	113-177	135	154-225	185	71-110	87	M	A	SH	32-52	40
24.	VL 907(C)	NHIVT-1521	20S	6.7	4	113-173	130	157-227	184	72-109	88	M	A	SH	35-46	42

1. Ancillary data from Almora, Dhaulakuan, Malan, Shimla and Khudwani
2. Yellow rust data from Khudwani, Malan and Shimla
3. Powdery mildew data from Almora and Malan

Northern Hills Zone
IVT-RF-TS-TAS-NHZ, 2015-16
Individual Station Rust Data

SN	Variety	Code	Khudwani	Malan	Shimla
			YI	YI	YI
1.	HPW 425	NHIVT-1501	tR	tS	0
2.	VL 2022	NHIVT-1502	tR	tS	0
3.	VL 2019	NHIVT-1503	tR	30S	0
4.	HPW 431	NHIVT-1504	tR	0	0
5.	HPW 430	NHIVT-1505	tR	0	0
6.	UP 2953	NHIVT-1506	tR	0	5S
7.	VL 2024	NHIVT-1507	tR	tS	0
8.	VL 2023	NHIVT-1508	tR	0	0
9.	HPW 427	NHIVT-1509	tR	0	0
10.	HS 616	NHIVT-1510	tR	0	0
11.	HS 612	NHIVT-1511	tR	tS	0
12.	HPW 429	NHIVT-1512	tR	0	0
13.	HPW 426	NHIVT-1514	tR	tS	0
14.	UP 2952	NHIVT-1515	tR	tS	0
15.	HS 615	NHIVT-1516	tR	tS	0
16.	HPW 428	NHIVT-1517	tR	tS	0
17.	HS 613	NHIVT-1518	tR	15S	0
18.	HS 614	NHIVT-1519	tR	10S	0
19.	HS 617	NHIVT-1520	10MR	10S	0
20.	VL 2020	NHIVT-1522	tR	0	0
21.	VL 2021	NHIVT-1523	tR	0	0
22.	HS 618	NHIVT-1524	tR	tMS	0
23.	HS 507(C)	NHIVT-1513	tR	10S	5S
24.	VL 907(C)	NHIVT-1521	tR	20S	0

1517-IVT-IR-TS-TAS-NHZ, 2015-16
Locationwise Mean Yield (q/ha)

SN	Variety	Code	Uttarakhand			HP					
			Almora			Bajaura			Dhaulakuan		
			Yield	Rk	G	Yield	Rk	G	Yield	Rk	G
1.	HPW 425	NHIVT-1501	53.4	3	1	43.8	17	0	35.2	8	0
2.	VL 2022	NHIVT-1502	49.8	13	0	43.0	18	0	36.9	5	0
3.	VL 2019	NHIVT-1503	47.5	17	0	57.2	2	1	31.4	20	0
4.	HPW 431	NHIVT-1504	41.2	24	0	36.5	23	0	21.1	24	0
5.	HPW 430	NHIVT-1505	51.5	8	1	45.4	14	0	30.7	22	0
6.	UP 2953	NHIVT-1506	53.6	2	1	44.8	15	0	38.7	2	1
7.	VL 2024	NHIVT-1507	49.6	14	0	50.7	5	0	37.7	3	1
8.	VL 2023	NHIVT-1508	46.9	20	0	43.0	18	0	34.6	9	0
9.	HPW 427	NHIVT-1509	46.0	21	0	31.2	24	0	33.6	12	0
10.	HS 616	NHIVT-1510	52.0	7	1	47.1	12	0	33.8	11	0
11.	HS 612	NHIVT-1511	53.3	5	1	57.4	1	1	32.8	14	0
12.	HPW 429	NHIVT-1512	55.6	1	1	47.9	10	0	31.8	19	0
13.	HPW 426	NHIVT-1514	53.4	4	1	41.2	22	0	30.1	23	0
14.	UP 2952	NHIVT-1515	52.2	6	1	46.8	13	0	36.3	7	0
15.	HS 615	NHIVT-1516	47.9	16	0	47.3	11	0	33.4	13	0
16.	HPW 428	NHIVT-1517	50.8	9	1	49.3	8	0	34.6	9	0
17.	HS 613	NHIVT-1518	41.9	23	0	49.8	6	0	32.2	17	0
18.	HS 614	NHIVT-1519	47.2	19	0	54.1	3	0	39.8	1	1
19.	HS 617	NHIVT-1520	47.5	18	0	48.8	9	0	32.8	14	0
20.	VL 2020	NHIVT-1522	50.4	10	0	52.5	4	0	32.0	18	0
21.	VL 2021	NHIVT-1523	50.3	11	0	49.8	6	0	36.5	6	0
22.	HS 618	NHIVT-1524	48.4	15	0	44.6	16	0	31.3	21	0
23.	HS 507 (C)	NHIVT-1513	45.0	22	0	42.3	20	0	32.8	14	0
24.	VL 907 (C)	NHIVT-1521	50.0	12	0	41.8	21	0	37.5	4	0
G.M.			49.4			46.5			33.7		
S.E.(M)			2.084			0.911			0.958		
C.D.			4.9			2.1			2.3		
C.V.			8.4			3.9			5.7		
D.O.S. (d.m.y.)			9.11.2015			6.11.2015			10.11.2015		

Trials proposed & conducted = 5

Trials not reported (2) = Shimla (LSM), Malan (LSM)

IVT-IR-TS-TAS-NHZ, 2015-16
State and Zonal Mean Yield (q/ha)

SN	Variety	Code	Uttarakhand			HP			Zonal		
			Yield	Rk	G	Yield	Rk	G	Yield	Rk	G
1.	HPW 425	NHIVT-1501	53.4	3	1	39.5	17	0	44.1	12	0
2.	VL 2022	NHIVT-1502	49.8	13	0	39.9	14	0	43.2	13	0
3.	VL 2019	NHIVT-1503	47.5	17	0	44.3	3	0	45.4	6	0
4.	HPW 431	NHIVT-1504	41.2	24	0	28.8	24	0	32.9	24	0
5.	HPW 430	NHIVT-1505	51.5	8	1	38.0	19	0	42.5	17	0
6.	UP 2953	NHIVT-1506	53.6	2	1	41.7	8	0	45.7	4	0
7.	VL 2024	NHIVT-1507	49.6	14	0	44.2	4	0	46.0	3	1
8.	VL 2023	NHIVT-1508	46.9	20	0	38.8	18	0	41.5	19	0
9.	HPW 427	NHIVT-1509	46.0	21	0	32.4	23	0	36.9	23	0
10.	HS 616	NHIVT-1510	52.0	7	1	40.4	12	0	44.3	11	0
11.	HS 612	NHIVT-1511	53.3	5	1	45.1	2	0	47.9	1	1
12.	HPW 429	NHIVT-1512	55.6	1	1	39.9	15	0	45.1	7	0
13.	HPW 426	NHIVT-1514	53.4	4	1	35.6	22	0	41.5	18	0
14.	UP 2952	NHIVT-1515	52.2	6	1	41.6	9	0	45.1	8	0
15.	HS 615	NHIVT-1516	47.9	16	0	40.4	13	0	42.9	16	0
16.	HPW 428	NHIVT-1517	50.8	9	1	41.9	7	0	44.9	10	0
17.	HS 613	NHIVT-1518	41.9	23	0	41.0	10	0	41.3	21	0
18.	HS 614	NHIVT-1519	47.2	19	0	47.0	1	1	47.1	2	1
19.	HS 617	NHIVT-1520	47.5	18	0	40.8	11	0	43.0	15	0
20.	VL 2020	NHIVT-1522	50.4	10	0	42.3	6	0	45.0	9	0
21.	VL 2021	NHIVT-1523	50.3	11	0	43.2	5	0	45.5	5	0
22.	HS 618	NHIVT-1524	48.4	15	0	37.9	20	0	41.4	20	0
23.	HS 507 (C)	NHIVT-1513	45.0	22	0	37.5	21	0	40.0	22	0
24.	VL 907 (C)	NHIVT-1521	50.0	12	0	39.6	16	0	43.1	14	0
G.M.			49.4			40.1			43.2		
C.D.			4.9			1.6			1.9		

Northern Hills Zone

Summary of Disease Data and Agronomic Characteristics

Trial: IVT-IR-TS-TAS-NHZ, 2015-16

SN	Variety	Code	Disease Reactions			Agronomic Characteristics							Grain Characteristics			
			YI	ACI	PM	Hd.R	Hd.M	Mat.R	Mat.M	Ht.R	Ht.M	Thr.	Col.	Tex.	TGW.R	TGW.M
1.	HPW 425	NHIVT-1501	tMR	0.1	6	103-137	118	152-187	167	98-116	105	Ey-M	A	SH	40-51	45
2.	VL 2022	NHIVT-1502	5S	1.0	7	105-137	119	155-188	168	88-105	95	Ey-M	A	SH	34-42	37
3.	VL 2019	NHIVT-1503	15S	3.2	7	116-144	129	153-190	170	85-109	97	Ey-M	A	SH	30-42	35
4.	HPW 431	NHIVT-1504	5S	2.0	3	110-144	125	154-190	171	87-117	104	Ey-M	A	SH	36-54	44
5.	HPW 430	NHIVT-1505	0	0.0	5	106-142	122	157-190	171	92-116	106	Ey-M	A	SH	30-50	43
6.	UP 2953	NHIVT-1506	60S	25.0	7	105-137	120	156-186	168	92-105	98	Ey-M	A	SH	34-38	36
7.	VL 2024	NHIVT-1507	0	0.0	7	110-141	124	157-188	170	87-115	102	Ey-M	A	SH	34-46	38
8.	VL 2023	NHIVT-1508	0	0.0	8	112-141	125	153-186	167	88-102	95	Ey-M	A	SH	36-49	46
9.	HPW 427	NHIVT-1509	10S	2.2	8	106-142	123	156-190	171	90-125	107	Ey-M	A	SH	39-50	45
10.	HS 616	NHIVT-1510	0	0.0	7	110-142	126	150-189	169	88-108	97	Ey-M	A	SH	39-44	42
11.	HS 612	NHIVT-1511	20S	4.2	7	115-142	125	154-190	169	95-117	105	Ey-M	A	SH	32-44	39
12.	HPW 429	NHIVT-1512	5S	1.2	8	102-139	120	152-189	170	89-122	105	Ey-M	A	SH	40-52	44
13.	HPW 426	NHIVT-1514	tMR	0.1	5	106-139	122	154-190	171	88-121	104	Ey-M	A	SH	39-51	45
14.	UP 2952	NHIVT-1515	20S	9.2	7	109-137	122	157-186	169	89-104	97	Ey-M	A	SH	42-50	46
15.	HS 615	NHIVT-1516	0	0.0	4	113-141	125	155-187	169	84-116	103	Ey-M	A	SH	39-48	43
16.	HPW 428	NHIVT-1517	tR	0.1	8	105-141	123	149-188	168	90-109	99	Ey-M	A	SH	35-42	38
17.	HS 613	NHIVT-1518	15S	3.2	9	109-144	125	151-197	172	89-108	98	Ey-M	A	SH	32-40	39
18.	HS 614	NHIVT-1519	10S	4.0	5	109-138	122	155-186	168	93-110	101	Ey-M	A	SH	37-50	43
19.	HS 617	NHIVT-1520	40S	11.1	6	109-139	123	151-184	167	97-123	106	Ey-M	A	SH	40-46	43
20.	VL 2020	NHIVT-1522	0	0.0	5	116-142	127	156-189	171	87-106	96	Ey-M	A	SH	30-46	38
21.	VL 2021	NHIVT-1523	5S	1.0	7	109-142	124	153-190	171	86-100	93	Ey-M	A	SH	29-48	38
22.	HS 618	NHIVT-1524	0	0.0	7	113-142	125	156-188	169	93-121	105	Ey-M	A	SH	32-46	41
23.	HS 507(C)	NHIVT-1513	10S	7.2	5	115-141	126	158-188	171	86-104	95	Ey-M	A	SH	34-44	39
24.	VL 907(C)	NHIVT-1521	30S	9.0	7	112-142	125	158-191	170	88-109	100	Ey-M	A	SH	39-45	42

1. Ancillary data from Almora, Bajaura, Dhaulakuan, Malan and Shimla.
2. Yellow rust data from Almora, Bajaura, Dhaulakuan, Malan and Shimla.
3. Powdery mildew data from Almora and Malan.

Northern Hills Zone
IVT-IR-TS-TAS-NHZ, 2015-16
Individual Station Rust Data

SN	Variety	Code	Almora	Bajaura	Dhaulakuan	Malan	Shimla
			YI	YI	YI	YI	YI
1.	HPW 425	NHIVT-1501	0	tR	0	tMR	0
2.	VL 2022	NHIVT-1502	0	0	0	5S	0
3.	VL 2019	NHIVT-1503	tR	15S	0	tS	0
4.	HPW 431	NHIVT-1504	5S	tR	0	5S	0
5.	HPW 430	NHIVT-1505	0	0	0	0	0
6.	UP 2953	NHIVT-1506	5S	40S	60S	20S	0
7.	VL 2024	NHIVT-1507	0	0	0	0	0
8.	VL 2023	NHIVT-1508	0	0	0	0	0
9.	HPW 427	NHIVT-1509	10S	0	0	tS	0
10.	HS 616	NHIVT-1510	0	0	0	0	0
11.	HS 612	NHIVT-1511	0	20S	0	tS	0
12.	HPW 429	NHIVT-1512	5S	0	0	tS	0
13.	HPW 426	NHIVT-1514	0	0	0	tMR	0
14.	UP 2952	NHIVT-1515	5S	20S	20S	tS	0
15.	HS 615	NHIVT-1516	0	0	0	0	0
16.	HPW 428	NHIVT-1517	tR	tR	0	0	0
17.	HS 613	NHIVT-1518	0	15S	0	tS	0
18.	HS 614	NHIVT-1519	5S	5S	0	10S	0
19.	HS 617	NHIVT-1520	tMR	40S	5S	10S	0
20.	VL 2020	NHIVT-1522	0	0	0	0	0
21.	VL 2021	NHIVT-1523	0	5S	0	0	0
22.	HS 618	NHIVT-1524	0	0	0	0	0
23.	HS 507(C)	NHIVT-1513	tS	10S	10S	10S	5S
24.	VL 907(C)	NHIVT-1521	10S	30S	0	5S	0