



WHEAT CROP HEALTH NEWSLETTER

Directorate of Wheat Research
P.B. 158, Karnal-132 001



March, 2013

Volume: 18 (2012-2013)

Issue: 4

Available on website: <http://www.dwr.res.in>

During February, 2013, overall wheat crop health was very good. Stripe rust was mainly prevalent wherever susceptible varieties like Super 172, HD 2733, HD 2894, HD 2851, HD 2932, WH 711, PBW 343, Barbet etc. were grown. All these varieties need to be replaced with the stripe rust resistant recommended varieties.

Wheat crop health reports of February, 2013 have been compiled in 4th issue of Vol. 18 (2012-13) of Wheat Crop Health Newsletter, brought out this month. Crop health surveys were carried out in various parts of the country by the scientists of DWR, the cooperating scientists of AICW&BIP, KVK's scientists and officers of State Department of Agriculture of different states, Directorate of Wheat Development, Ghaziabad and CIPMC centres during February, 2013. The Task Force Meeting was held at ICAR Krishi Bhavan, New Delhi under the Chairmanship of Dr S. K. Datta, DDG (CS) on February 12, 2013. As per the recommendations of Task Force, in addition to regular survey undertaken by DWR and its co-operators, 17 survey teams conducted extensive surveys for stripe rust (yellow rust) management in HP, J & K, Punjab, Haryana, Uttarakhand, Eastern UP and Bihar during second fortnight of February. Dr. G.K. Choudhury, Director, Directorate of Wheat Development, Ghaziabad also extensively surveyed the northern states and provided latest update on stripe rust. Dr. T. P. Rajendran, ADG (PP), ICAR, New Delhi and Dr. Indu Sharma, Project Director, DWR, Karnal interacted with DAC/State Agriculture Department officers for stripe rust management. The DWR issued advisory for stripe rust management from time to time during the month through newspapers, electronic media (internet & SMS) etc.

North Western Plain Zone (NWPZ)

Punjab: Dr. R. S. Bal (Asstt Plant Pathologist, Gurdaspur) observed stripe rust in village, Sadana (Dinanagar, Gurdaspur) on variety PBW 343 in 1st week of February. Dr. Yuvraj Singh (Director, Langroya Farm, PAU, Ludhiana) recorded stripe rust in village Chidouri in varieties, DPW 621-50 and DBW 17 on Feb. 4, 2013. Dr. Madhu Meeta (Senior Plant Pathologist, PAU, Ludhiana) conducted wheat rusts survey on February 12, 2013 in Ludhiana and Ropar districts enrouting Kohara, Machiwara, Khotala Bet, Shergarh, Fasse Mand, Mohan Majra, Sarangpur, Perozpur, Lakewal, Rasidpur, Nawa Makowal and Fatehgarh veera. The varieties grown in area were PBW 550, DPW 621-50, HD 2967 and un-recommended varieties HD 2894 and Barbet also occupied large area. Stripe rust was observed on varieties, PBW 550, DPW 621-50, HD 2967, HD 2733, HD 2894, WH 711 and Barbet near Satluj river bundh in a radius of 1 Km. One field of PBW 550 (~2 acres) and HD 2894 was severely affected with stripe rust (60S). On DPW 621-50 (25 acres), many foci of stripe rust with severity of 10-20S were observed. Wheat variety, WH 711 was also severely affected with stripe rust. Stripe rust was also recorded on HD 2967 (Traces -5S). On February 18, 2013, Dr. Madhu Meeta surveyed near Ladowal (Ludhiana) and recorded stripe rust (foci of 5 m with severity of 80S) on variety PBW 550 in village Barewal Dogra.

Dr. D. V. Singh, former Head, Division of Plant Pathology, IARI, New Delhi surveyed Hoshiarpur and Ropar on February 11, 2013. Dr. Singh observed stripe rust in some fields in Hoshiarpur. On February 13, 2013, Drs. Indu Sharma and M. S. Saharan (DWR, Karnal) visited the farmers fields along the Satluj area in village Shergarh and Fasse Mand. The varieties grown in the area were PBW 550, DPW 621-50, HD 2967 and un-recommended varieties HD 2894 and Barbet. Stripe rust was observed in patches in varieties HD 2733, HD 2894, WH 711, PBW 550, Barbet, DPW 621-50, HD 2967 near Satluj river bundh in a radius of 1 Km in villages Shergarh and Fasse Mand. WH 711 was also severely affected with stripe rust. On DPW 621-50 and HD 2967, many foci of stripe rust with severity of 10-20S were observed.

Dr. Robin Gogoi (IARI, New Delhi), Dr. Rakesh Devlash (HPKV, Bajoura) and Dr. Hanif Khan (DWR Regional Station, Flowerdale, Shimla) monitored wheat crop health in Sharifgarh and Banur of Haryana, Chaklan, Kamalpur, Charsoa, Pal Magra and Kubhe (Doraha), Ludhiana of Punjab. On 14th February, 2013, survey was undertaken in Mansurpur, Raipur (Rasulpur), Cholang, Pakka Pul, Mandhi Punwa, Sultanpur, Jakoladhi (Dinanagar) and Marheen of J & K. Stripe rust in traces was observed in Mukandpur & Chakshoa. On the third day (15th February, 2013), wheat fields were visited in Kathua and also seven spots of Punjab viz. Kantrpur, Mukaria, Goudpur, Kalawal/Mahilpur, Garshankar, Balachaur and Ropar (Rupnagar). Out of the total twenty five sites visited, presence of stripe rust was found in three places of Punjab viz. Chaklan (Trace, variety HD 2894 and HD 2967), Pakka Pul (Trace to 5S, variety not known) and Ropar (Trace to 5S, variety not known) and three places of Kathua (J&K) viz. Marheen (5S to 10S, variety DBW 550), Mukandpur (Trace) & Chakshoa (Trace). Powdery mildew was recorded in Marheem (J&K) and Ropar (Punjab) and flag smut in Balachaur (Punjab) which were confined to the lower leaves. Sporadic infestation of aphids and leaf blight were noticed in few fields.

Dr Daman Jeet Kaur, Senior Nematologist (Wheat), Dr Ritu Bala Asstt. Pathologist and Dr Beant Singh, Asstt. Entomologist (PAU, Ludhiana) monitored the wheat crop enroute Jagraon, Moga, Ferozepur, Faridkot, Kotkapura, Baghapurana and Ludhiana on 20.2.2013. Stripe rust incidence upto 60S was recorded from Punjgrahian (Dist Faridkot) and in traces in fields near Mullanpur (Dist Ludhiana), Dagru (Dist Moga) and Bargadi (Dist Faridkot). Aphid incidence was moderate at Talwandi Bhai (Dist. Ferozepur) and Punjgrahian (Dist Faridkot) while low incidence was recorded from all other place surveyed. Dr. Madhu Meeta reported stripe rust occurrence (traces to 10S) in Gurdaspur enrouting Jalandhar and Hargobindpur on Feb. 28, 2013. The Associate Director, KVK (T), Hoshiarpur reported stripe rust in 57 villages of ten blocks of the district. Stripe rust was observed on WL 711, DBW 17, PBW 550, HD 2894 and PBW 621 varieties of wheat in patches during Feb. 18-27 in Mahilpur (villages, Shergarh, Nangal Khiladiyan, Chakk Mallan, Jandoli, Tajewal, Bichohi, Rampur, Chakk Nathan, Jandiala, Bahawal, Mahilpur, Bharta, Sakruli, Gujjarpur, Baddowan, Sardullapur and Tutomazara).

Haryana: On February 13, 2013, survey was carried out by Drs. Indu Sharma and M. S. Saharan enrouting Karnal – Kurukshetra-Shahbad-Ambala in Haryana. In general, stripe rust was not observed in any wheat field in Karnal, Kurukshetra, Shahbad and Ambala area. The crop was very good. Dr Pardeep Meel, DDA, Yamunanagar and his staff continuously monitored the wheat crop health during February and sent stripe rust report regularly to DWR. On February, 2013, Drs. M.S. Saharan, Selva Kumar (DWR, Karnal), Anil Chauhan (State Department of Agriculture, Haryana) and

Shri Anantha Murthy (Sathguru) surveyed Karnal area for rusts. Stripe rust (20-40S) was recorded only in one farmer's field in variety, HD 2932 in a village near Indri. Drs. Selvakumar and Anuj Kumar (DWR, Karnal) visited farmers fields at Subri village, Karnal (N 29.67928; E 077.05981; 234m) on Feb. 15, 2013. On 18th Feb., Drs. Selvakumar and Mangal Singh surveyed Ambala and Yamuna Nagar districts. There was no rust in any of the fields in Ambala. In only one field at Mankamani, Yamunannagar (N30.23504; E77.13480; 289m), stripe rust pustules were observed in few plants. Powdery mildew attack was severe on road side plants.

A survey for wheat crop health was conducted during Feb. 19-20, 2013 by Dr. S. S. Karwasra (Sr. Wheat Pathologist, CCS HAU, Hisar) and Dr. I.S. Panwar (Sr. Wheat Breeder, CCS HAU, Hisar) On 19-2-2013, the wheat crop was surveyed enroute to Sarsod, Barwala, Sachakhera, Uklana, Narwana, Kaithal, Phewa Ambala, Yamuna Nagar, Indri and Karnal. The incidence of stripe rust in wheat was observed in Ambala in villages Barara and Burio on varieties Barbet and PBW 343 in the range of TS-20S. One large foci was observed in the field. In Yamna Nagar, Dr. R. S. Taya (Sr. Extension Specialist, KVK, Yamunanagar) also joined the survey team. Wheat fields in villages, Madhowas, Ghillor (Radaur block), Dhasora and Karkoli (Chhachroli block) and Ratholi village were surveyed for rusts. Foci of stripe rust was noticed with severity ranging from TS to 20S. The stripe rust was noticed in varieties, HD 2894, HD 2851, HD 2967, WH 711, Barbet, Super-172 and PBW 343. The farmers of the area were aware of this disease and were spraying the crop with Tilt @ 0.1%. On the way to Karnal, stripe rust was not observed. On 20th Feb., some villages were visited alongwith Sr. Coordinator of KVK, Panipat and stripe rust was not observed in any farmers field in Panipat, Sonipat, Rohtak and Hisar districts. Overall, the wheat crop was excellent in all the districts.

Report of stripe rust occurrence in 1171 acres in Yamunanagar district was received from Dr Pardeep Meel, DDA on February 26, 2013. The DWR team (Dr. Indu Sharma & Dr. M. S. Saharan) alongwith Sh. Jaswinder Saini, SDO, Yamunanagar, Sh. Tarun Kumar, ADO, Sarawa and Sh. Somnath Kamboj, Block Technical Manager, ATMA monitored the rust situation in the affected villages of Sadhaura and Jagadhri blocks. Stripe rust appeared in severe form in varieties, Super 172, WH 711, HD 2851, Raj 3765 planted in large scale in village Sarawa. Severity of the disease was upto 60S. In other villages of Sadhaura block, stripe rust was also observed (20-40S). In village Jaroda (Jagadhri block), one foci of 30S (4 sq. meter) of stripe rust was recorded in variety, HD 2967. Sr. Coordinator KVK, Panipat reported first incidence of stripe rust in village Nvada-R on Feb 23 and in one field in villages, Rana Majra and Sanoli Khurd on Feb 27, 2013. Dr. S.P. Goyal, Senior Coordinator, KVK, Fatehabad informed that wheat crop is free from any rust during February, 2013 in Fatehabad area of Haryana.

Rajasthan: The wheat crop was monitored in Jaipur district on 18.02.2013 by Dr. K.K. Bhargava, HOD, Entomology and Senior Wheat Entomologist, Dr. R.K. Bansal, Senior Wheat Pathologist and Dr. Nitin Chawla, ARS, Durgapura. The crop health condition in general was good in most of the area surveyed. No rust and insect - pests incidence were observed in the field surveyed in Achrol (N 26° 50.610'; E 075° 49.408'. 440 M), Nawarpura (N 27° 19.628'; E 075° .57.095 60'. 445 M), Manoharpura (N 27° 16.039'; E 075° 59.901'. 438M), Azabpura (N 27° 14.694'; E 076° 03.139'. 434 m), Smarnradkalan (N 27°06.432'; 076° 04.934'.408 M), Raisar (N 27° 10.010'; E 076° 06.556' 403 M) and Jamwa Ram Garh (N 27 01.679'; E 076 02.371'. 394M). The incidence of Leaf wheat mites,

termites and flag smut was 2-3 % at Achrol area, whereas, flag smut was 15-20 % and termite damage was observed more than 5% in Azabpura and Jamwa Ramgarh area.

J & K: Dr. M.K. Pandey (Wheat Pathologist, SKUAS&T, Jammu), Dr. Sanjay Swami (Programme coordinator, KVK, Jammu) observed stripe rust first time in the field of Shri Suchet Singh (Allivation N 32°29.622, E 074°43.982', Elevation 267m) on variety RAJ 3077 in Davigarh village of RS Pura (Jammu) on Feb. 11, 2013. Its incidence was 20S with 25% intensity in the field. Rust survey was carried out especially in border areas of Jammu Province including Jammu, Samba and Kathua districts (Mirasahab, RS Pura, Saikalan, Devigarh, Trewa, Anandpur, Rajgarh, Chack Salaria, Mawa, Rajpura, Mathura chake, Chadwal, Gangayal, Samba, Hiranagar) during February 16-17, 2013. Stripe rust (10-20S) was found in the field of Sh. Yashpal (N 32°29.511, 074.43.316 Elevation 254m) in village, Davigarh, Bulla Chak (RS Pura, Jammu) in varieties, DBW 17 and RAJ 3077 (3 kanal areas) and in villages, Ramgarh (Anandpur) and Matakaliu (Samba district) on unidentified varieties and Raj 3077 in 4 kanal (N 32°30.494, E 074.53.963, Elevation 280m). Leaf blight was also observed in Jammu and Samba district with intensity of 10-20 per cent in RAJ-3077 and RAJ-3765. Loose smut was recorded from Mathura check with 10 per cent intensity in 2 fields (3 Kanals).

Drs. M.K. Pandey and Deepak Kumar surveyed the areas from Udhyawalla to Khore via Marh, Kalagi, Bhalwal, Malian Mishriwalla, Akhnoor, Jorian, Douul and Khagore on Feb. 27, 2013. Stripe rust was observed in all the fields with trace to 10S with low intensity but in one field in Marh (0.5 acre) and Douul (2 acres, PBW-343), stripe rust was upto 50S. On 28th February, Dr. M.K. Pandey and Dr. Amrish Vaid surveyed Samba and Kathua districts via Vijaypur, Gagore, Ramgarh, Kothamore, Chadwal, Hamirpur, Banoti, Kathua KVK, Barnoti, Rajbag, Khanpur, Marheen and Gadaial More. Stripe rust was observed in six fields of Gagore, Ramgarh, Hamirpur, Banoti, Kathua KVK, Khanpur and Gadaial More with trace to 20S in patches, while in Marheen, two acres of area was affected with 20S severity. On KVK Kathua, stripe rust was recorded in PBW-527 (20MS) and HD-2967 (5TR).

Northern Hill Zone (NHZ)

HP: Dr. S. C. Bhardwaj (Head, DWR Regional Station, Flowerdale, Shimla) had a meeting with the Deputy Director Agriculture, Subject Matter Specialists, Agr. Dev. Officers, Seed Certification Officers and Farmers on 22.02.2013. The variety and seed issues were sorted out with the help of Dr. D. P. Walia (IARI Regional Station, Tutikundi, Shimla). They also informed that stripe rust appeared on wheat crop in villages Dubbat and Mannan but chemical control restricted the disease in these locations. No rust was observed in the FLDs of HS 507 and HPW 155 at Sanour, Bakroa and. In a field of VL 616 at Chandpur, stripe rust with 5% incidence and 20S severity was observed. Two leaves of HPW155 were found infected with trace of stripe rust at same location. In locations at Kallar, Chhadol (towards Swarghat), Lagdhar, Tramdi, Chadan modd and Deoth, no rust was observed.

Surveys were conducted on 12th, 18th and 22nd February in Nahan and Paonta Blocks of District Sirmour by Dr. Dhanbir Singh (Regional Director, HPKVV, DhaulaKuan). No stripe rust was recorded from anywhere in the farmers field. However, stripeing of crop was noticed due to heavy rainfall in some places under survey. Aphid infestation was recorded in traces. In most of the areas, the crop is in stem elongation stage. Overall crop condition is very good both in irrigated and rainfed areas. Stripe rust was recorded on fifth February in TRAP and SAARC nurseries. The disease score was

5-10S on WL 711, Kharchia and Gourab. In Trap Plot Nursery, stripe rust (5-20S) was recorded in all the lines except HD 2204, HW 2008, PBW 550 and WH 896 on 21-2-13. In SAARC nursery, stripe rust was recorded in all the lines except HD 2204, Raj 3765, Punjab 85, Chakwal 86 and kohsar.

Wheat crop health was monitored by conducting survey and surveillance tour in parts of Bhedu Mahadev, Dehra, Pragpur, Nagrota Surian and Fatehpur blocks of district Kangra by the team constituted for stripe rust surveillance viz., Dr. S.K. Rana (Sr. Plant Pathologist, Rice & Wheat Research Centre, Malan), Dr. Anand Prashar (SMS, Department of Agriculture) and Dr. Atul Dogra (Deputy Project Director, ATMA Palampur) on 12-13th February, 2013. The overall crop condition was very good. Stripe rust appeared at some locations viz., Lower Ghalor in Dehra block, Chalah/ Kuhna in Pragpur block and Pong dam area in Nagrota Surian block with severity ranging from TS-40S on susceptible varieties like HS 240, HS 295, VL 616, Raj 3765, PBW 373, PBW 502 and WH 711 etc. The prevailing climatic condition was quite congenial for the infection and development of stripe rust therefore, farmers were advised to spray Tilt 25 EC or Shine 25 EC (propiconazole) at the rate of 30 ml fungicide per 30 litre water per Kanal area immediately after noticing the symptoms in the form of stripe colored pustules and powder in stripes on leaves. Stripe rust has been recorded at locations situated adjacent to river Beas and Pong Dam. Flag smut was recorded at many locations in Dehra, Pragpur and Fatehpur blocks with incidence ranging from 0.5-15% and farmers were advised to treat the seed with Bavistin @ 2.5 g per kg seed before sowing. Loose smut was recorded at Lower Ghalor where crop was at heading stage with incidence varying from 0.1-0.5%. Powdery mildew of wheat was recorded at Sthana in traces and Manwala/Polian with intensity varying from 3-5 (0-9 scale) in Fatehpur block. Moderate to severe attack of aphids was recorded in foot hill areas of Fatehpur block at Sthana and Rey villages. Stripeing of lower leaves was also noticed at some places due to water logging, low temperature / effect of frost and poor management of crop. Moderate to severe attack of aphids was recorded in foot hill areas of Fatehpur block at Sthana and Rey villages.

As per report received from Zonal Co-ordinator, Ludhiana, stripe Rust was observed in DBW-17 in village Gochar-Daslehra, Block Jhandutta, District Bilaspur, on February 28, 2013. Dr. Pankaj Sood (KVK, Sundernagar, Mandi) reported stripe rust incidence in wheat varieties, PBW 550 at Nehra (Sundernagar block) and Ropra (Darang block), in DBW 17 at Ropra (Darang) and in unidentified cultivars at Gheru, Arnode, Kun, Tandu (Sadar block) during third week of February. Dr. S. K. Gupta, Programme Coordinator, KVK, Kandaghat (Solan) reported stripe rust in village Majra (Nalagarh area of Solan District) during last week of February, 2013. Detailed survey of four blocks of district Kangra viz., Kangra, Dehra, Pragpur and Nagrota Surian District Kangra was conducted by Deptt. of Agriculture officials and Scientists of Rice and Wheat research station Malan during last week of February. No disease was recorded in Kangra block. Disease incidence between 10-20S was recorded at some places in Dehra, Pragpur and Nagrota Surian blocks on Local cultivars only.

Uttarakhand: A survey was conducted by Dr S.K. Jain, Principal Scientist (Plant Pathology) and Dr Lakshmi Kant, Principal Scientist (Plant Breeding), VPKAS, Almora in the hilly region of Uttarakhand during February 21-22, 2013. On February 21, 2013, in Almora district in villages, Babbar Khola (N29°39'21.6", E 79 32'55.5", 1705 mamsl) and Shali Sunauli (N 29°42'29.7", E 79°26'15.1", 1076 mamsl), the crop was at tillering stage and no rust was observed. In village, Naugaon

(N 29°50'26.7", E 79°23'02.2", I 1052 mamsl), the crop was at booting to flowering stage and up to 5S stripe rust in few plants was found in one of the fields. At Ganai (N 29°53'03.5", E 79°23'02.2", 941 mamsl), the crop was at flowering stage. The major varieties grown (VL 804, VL *Gehun* 892 and VL *Gehun* 907) were free from stripe rust. Whereas in adjacent fields, where unrecommended varieties were sown, the stripe rust incidence up to 60 to 80S was recorded with about 30% prevalence. In the Field of Mr. Girish Goswami, several such foci were found. In villages, Chinoni, Masi (N 29°51'48.9", E 79°19'24.4", 922 mamsl), Jukanauli (N 29°52'05.6", E 79°22'00.3", 1002 mamsl) and Akhoria (N 29°52'05.6", E 79°22'00.3", 1002 mamsl), wheat variety VL 907 was free from stripe rust whereas stripe rust (upto 10S) was found in unrecommended variety. Other fields which were planted with improved varieties were also free from stripe rust. In village Binta (N 29°46' 39.6", E 79°29' 40.6", 1296 mamsl), the crop was at tillering stage and was found free from stripe rust.

On 22nd Feb 2013, crop health survey was undertaken in Bageshwar district. At Darimkhola (N 29°41'51.0", E 79°37'53.3", 1149 mamsl), Gagri gol (N 29°53'42.9", E 79°39' 23.7", 1089 mamsl), Babri Gaon (N 29°44'47.4", E 79°37' 35.4", 1310 mamsl), Silli Haat, Garur (N 29°54'14.4", E 79°36' 29.5", I 1130 mamsl), Talli Nakhuri (N 29°51'59.5", E 79°35' 38.8", 1426 mamsl) and Takula, Almora (N 29°43'04.2", E 79°41' 56.9", 1394 mamsl), the crop was at tillering stage and from nowhere stripe rust was found. Majority of the area planted with VL 804, VL *Gehun* 802, VL *Gehun* 892, HS 507, VL *Gehun* 907.

Wheat crop was monitored for stripe rust in the farmers' field by Dr. J.P. Jaiswal, Prof., Genetics and Plant Breeding; Dr. Deepshikha, JRO, Plant Pathology and Mr. R.P. Singh, SRF on 9 Feb 2013 enroute Rudurpur (village Gangapur, Premnagar, Narainpur, Rameshwarpur and Kalinagar), Dineshpur (village Buksora and Sakenia), Gadarpur (Jai nagar,Kundan nagar,Balkheda and Chandi pur), Bajpur (village Barhaini, Bhattipuri and Namoon), and Kashipur (village Khadakpur, Kunda gaon and Kundesari). The dominant varieties sown in the areas were PBW 550, UP 2338 and DBW 17. The crop health was good and no stripe rust was recorded. On 11 Feb., 2013, area between Pantnagar and Khatima enroute Kichha (village Pepalli, Sirsa chowki, Uttam Nagar, Bari farm and Kathangari), Sitarganj (Turkattisor, Jungle Jogi Ther and Nakha farm), Nanakmatta (village Sara Saria) and Khatima (village Falaeya and Lohiyapul) were surveyed. Varieties sown in these areas were PBW 343, PBW 226, DBW 17, UP 2338, and PBW 502 of which PBW 343 was dominant. All the varieties except PBW 343 were found to be free from stripe rust. The severity of stripe rust on PBW 343 was recorded in the range between Trace to 70S. In the field of Mr. Om Prakash and Mr. Mohan Singh (village Sara Saria) at Nanakmatta, Mr.Sardar Singh (village Turkattisor) at Sitarganj and Mr Ram Singh (village Lohiyapul) at Khatima, the entire PBW343 field was infected with stripe rust with severity ranging between 20S-70S.

Tarai/Plains of Uttarakhand were surveyed for wheat diseases by Dr. J.P. Jaiswal, Prof., Genetics and Plant Breeding, Dr. Deepshikha, JRO, Plant Pathology and Dr. Kanak Srivastava, Jr. Scientist, enroute Rudurpur (village Dhaulpur, Jafarpur, Bhagwanpur and Danpur), Dineshpur(village Kalinagar, Jagdeshpur and Srirampur), Gadarpur(village Haripura maseed, Surajpur, Sultanpur and Jhagarपुर), Bajpur (village Barhaini, Bhattipuri namunaand and Namoon) and Kashipur(village Shankarpuri, Piplia, Khadakpurand Kunda gaon and Kelakheda) on 26 Feb., 2013. Varieties sown in these areas were PBW 343, PBW 154, DBW 17, PBW 502 and UP

2338. The crop health was good and stripe rust was observed in all the varieties though in trace.

On 27 Feb., 2013, area between Pantnagar and Khatima enroute Kichha (village Sirsa chowki, Uttam Nagar, Bari farm and Kathangari), Sitarganj (village Kamanipur, Turkattisor, and Nakha farm), Nanakmatta and Khatima (village Peniya, Gurkunda, Patpura and Bhangali) were surveyed. Varieties sown in these areas are PBW 343, PBW 154, PBW 226, and UP 2338 of which PBW 343 was dominant. All the varieties were found to be infected with stripe rust. The severity was recorded in the range from traces to 50S. In the field of Mr. Devi Prasad at village Kumra, Khatima and Mr. Kundan Singh Bora at village Gurkhuda, Khatima the entire PBW343 field was infected with stripe rust with severity ranging between 80S-100S. The high incidence of powdery mildew and aphid in wheat crop was also observed.

Central Zone (CZ)

The survey of wheat diseases was carried-out during the third week of February 2013 (Dough stage / maturity stage) in coastal area of Saurashtra region and farmers fields of Junagadh district by Dr. K. V. Jivani. Leaf and stem rust were not observed. Dr. Indu Sharma, Project Director, DWR, Karnal did not observe any wheat rust in farmers fields between Udaipur to Pali and Pali to Jodhpur during February 22-23, 2013. Dr. A. N. Mishra, Zonal Co-ordinator (CZ) informed that no rust was observed in any of the commercial cultivars at farmers fields during Feb. 22-25 in Indore, Bhopal, Sagar, Powarkheda, Damoh and Jabalpur. But leaf rust in traces was observed in local cultivars grown in above area.

Peninsular Zone (PZ)

Leaf rust (20-80S) was observed in local bread wheat cultivars in Dharwad, Mallur (Belgaum), Ugar Khurd (Belgaum), Navalagi (Bijapur) and Halingali (Belgaum) districts of Karnataka during survey conducted on 7, 8, 25 February, 2013 by Dr. I. K. Kalappanavar, Senior Wheat Pathologist, UAS, Dharwad. Dr. R. T. Sapkal, Wheat Rust Mycologist, Mahabaleshwar reported leaf rust (Traces to 40S) on off type plants in Western Maharashtra and Vidharbha region of Maharashtra during first and 2nd fortnight of February. Dr. S. C. Misra (ARI, Pune) reported leaf blight at Hol Farm, Pune (varieties, Raj 4319) and in farmers fields (variety, Mauli) in Songaon (Baramati), Pune on February 5, 2013. Dr. Indu Sharma (Project Director, DWR, Karnal), Dr. B. K. Honrao (ARI, Pune) and Dr. P. N. Rasal (Niphad) observed leaf rust in Karad (Ts-20S), Bhelwade (5S in Lok 1), Raygon (40S in off type plants), Khandala (10S in Lok 1) and Anewali (20S in GW 496) on February 19, 2013.

North Eastern Plain Zone (NEPZ)

Dr. Sunita Mahapatra informed that in Coochbehar, foliar blight and rusts were not observed in February, 2013. Drs. Ramesh Chand and V. K. Mishra (BHU, Varanasi) did not record any rust during survey carried out between February 24-25 in UP (Mugal Sari, Chandauli, Sakaldiha) and Bihar (Durgawati, Mohania, Mahurbati, Sirodha, Harnath pur, Kochas, Dinara, Manpur, Gaura, Semari, Buxar, Sobarasa, Karwania, Jagdishpur, Esadi, Dulhinganj, Rajapur, Arha, Danapur, Mahua and Pusa). Spot blotch was observed on all locations. Dr. B. N. Singh, NDUAT, Kumarganj, Faizabad reported moderate incidence of foliar blight in eastern U.P. in timely sown crop during February, 2013. Leaf rust appeared in wheat disease monitoring nursery on 26-2-2012 in Agra local. Light to heavy rains occurred on 5, 6, 16, 17, 23 and 24 February, 2013 which made the weather cooler during second fort night. In general timely sown crop

was good. Shootfly and Aphids infestation was noted in traces in the area. Dr. L.P. Tiwari (Zonal Co-ordinator, NEPZ) informed that no rust was observed at farmers fields in Kanpur area during February, 2013.

Southern Hill Zone (SHZ)

Stripe rust was observed 80-100S at village Kenthorai on local wheat Burga's Local on 12.2.2013 by Dr. J. Kumar, Head, IARI Regional Station, Wellington (TN). Leaf rust was also noticed to the tune of 40-80S at the same place. All three rusts and powdery mildew diseases were noticed in TPN and SAARC nurseries. Natural incidence has gone upto 100S at Wellington for all the three rusts. Powdery mildew also appeared in severe form (9) on 0-9 scale in the experimental materials at Wellington.

Issued by: Crop Protection Programme, Directorate of Wheat Research, P.B. 158, Karnal-132 001

Compiled and Edited by: M. S. Saharan, R. Selvakumar and Indu Sharma

Phone: 0184- 2266092, 2267490, 2267830, 2267495, **Fax:** +91-0184-2267390

E-mail: mssaharan7@yahoo.co.in, picpdwr@hotmail.com