



## WHEAT CROP HEALTH NEWSLETTER

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



February, 2013

Volume: 18 (2012-2013)

Issue: 3

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

The third issue of Vol. 18 (2012-13) is being brought out this month. Crop health surveys were carried out in various parts of the country by the scientists of DWR and the cooperating scientists of AICW&BIP during January, 2013. Crop health reports were received from Dr. S.C. Bhardwaj (DWR Regional Station Flowerdale, Shimla), Dr. J. Kumar (IARI, Wellington), Dr. S.S. Karwasra (CCS HAU, Hisar), Dr. R.S. Taya (KVK, Yamunanagar), Dr. Pardeep Meel, DDA (Yamunanagar), Sh. Ramesh Chand (CIPMC, Faridabad), Dr. M.K. Pandey (SKUAS&T, Jammu), Dr. Deepshikha (GBPAUAT, Pantnagar), Dr. S.K. Rana (Malan, Palampur), Dr. J. Kumar (IARI, Wellington), Dr. K. K. Bhargava, Dr. R.K. Bansal (ARS, Durgapura, Jaipur), Dr. Madhu Meeta (PAU, Ludhiana), Dr. B.K. Honrao (ARI, Pune), Dr. I.K. Kalappanavar (UAS, Dharwad), Dr. S.C. Misra (ARI, Pune), Dr. P.N. Rasal (Niphad), Dr. R.T. Sapkal (RWRRS, Mahabaleshwar), Dr. B.N. Singh (NDUAT, Faizabad), Dr. Atul Kumar (IARI, Pusa), Dr. H.C. Lal (Ranchi) and Dr. I.K. Patel (Vijapur). Specially constituted team (Dr. Madhu Meeta, PAU, Ludhiana, Dr. U.D. Singh & Dr. Vaibhav K. Singh, IARI, New Delhi, Dr. Pramod Prasad, Regional Station, DWR, Flowerdale, Shimla and Dr. Dhanbir Singh, CSK-HPKV) surveyed Punjab from January 16-18, 2013 with special emphasis on yellow rust of wheat. Dr. D. V. Singh, former Head, Division of Plant Pathology, IARI, New Delhi also surveyed Haryana during January 23-24, 2012.

### North Western Plain Zone (NWPZ)

On January 9, 2013, Dr. Madhumeeta Jindal, Dr. Chander Mohan and Dr. P.P.S. Pannu surveyed areas enrouting Phillaur, Aur, Jadla, Chankoya, Majari, Mahindpur, Chidouri, Garhshanker, Mahilpur, Jajo Doaba, Maily, Hoshiarpur, Handowal Kalan and Ludhiana. Stripe rust was observed only in village Mohindpur in the field of Sh. Harvinder Singh in DBW17. A team consisting of Dr. U.D. Singh & Dr. Vaibhav K. Singh, IARI, New Delhi, Dr. Pramod Prasad, Regional Station, DWR, Flowerdale, Shimla and Dr. Dhanbir Singh, CSK-HPKV, Dhaulakuan visited different wheat growing fields in Haryana, Punjab, Himachal Pradesh and adjoining area of Jammu & Kashmir during January 16-18, 2013. On 16<sup>th</sup> of January, survey team visited different wheat fields in Bhawakpur (Ambala, Haryana), Dandra, Majat and Jahanjeir (Mohali, Punjab), Silkapada, Ranman, Batala, Bassi Bhatana, Mehmatpur (Fatehgarh Sahib), Hedon (Samrala, Punjab) and Ludhiana (Punjab). No rust incidence was recorded at any place. Leaf blight in very minor intensity was noted at Jahanjeir, Silkapada and Bassi Bhatana. Stem borer and aphid infestation was observed in patches at Majat village. On 17<sup>th</sup> of January, Dr. Madhumeeta Jindal from PAU, Ludhiana also joined the team for visiting farmers' fields in Kisangarh (Jalandhar), Slampur (Dasua), Paniyar, Maripanwa, Bham (Gurdaspur), Dhopada (Pathankot) and Srimpur, Salampur (Hoshiarpur). No rust was observed in any of the field visited. Leaf blight incidence in traces was observed on DPW 621-50 in Paniyar, Dhopada and Srimpur. On 18<sup>th</sup> of January, survey team visited different villages like Shaloon (Shaheed Bhagat Singh

Nagar), Gari (Hoshiarpur), Bathu, Santoshgarh, Jattapura, Jankor (Una District) and Upper Surewal village (Ropar District). Yellow rust (20 S) was observed only in the field of Mr. Rohit Sharma in Surewal village (Ropar) of Punjab. Leaf blight in traces was observed in Shaloon village of Shaheed Bhagat Singh in Nagar District.

On 15<sup>th</sup> January Dr. R. Selvakumar and Dr. Mangal Singh observed leaf rust only in one field in var. HD 2851 in Samlehri village of Ambala. TPN planted at KVK, Damla (Yamunanagar) was free from rusts. Dr. S.S. Karwasra, Dr. I.S. Panwar and Dr. S.R. Verma (CCS HAU, Hisar) carried out wheat rusts survey on January 16, 2013 in Rohtak, Bhiwani and Hisar districts. Survey in Hisar, Jind, Kaithal, Kurukshetra, Ambala, Karnal and Yamunanagar districts of Haryana was undertaken January 23-24, 2013. Under cotton-wheat cropping system, mostly the crop was sown during December. In rest of the area under rice-wheat, more than 85% area was sown in month of November. Few fields which were sown during month of October were in heading stage. The wheat varieties sown were PBW 343, PBW 550, WH 711, DBW-17, DBW-16, HD 2967, DPW 621-50 and HD 2851. No rust was observed on any variety in the area surveyed. There was tip yellowing in var. PBW 343. In Sacha Khera (Jind district) and Bata (Kaithal district), flag smut disease was noticed on variety PBW 343 and incidence was about 2-3% and the seed was not treated before sowing.

Dr. D.V. Singh did not observe any rust during survey carried out on January 23, 2013 in Rewari and Rohtak districts of Haryana. No rust was observed by Drs. D.V. Singh and M.S. Saharan during survey carried out on January 24, 2013 in Karnal and Yamunanagar districts. On January 30, 2013, Dr. R.S. Taya (KVK, Yamunanagar) and Sh. Jagdish (ADO, Radaur) observed yellow rust foci from Mustafabad on PBW 550 and Madhubans (Radaur block) on DBW 17. Overall the wheat crop growth was very good. Drs. M. S. Saharan and Mangal Singh surveyed the Radaur area on 31<sup>st</sup> January, 2013. Yellow rust spot was observed in Madhubans and farmer was advised to spray the crop with fungicide immediately. Dr. Pardeep Meel, DDA, Yamunanagar informed the occurrence of yellow rust in villages Sukhdaspur (one field), Madhubans (one field), Bhogpur (one field) and Nagava Jagir (three fields) in Yamunanagar district of Haryana during 1<sup>st</sup> week of February, 2013. Mr. Ramesh Chand, Mr. R.K. Jain, APPO, CIPMC, Faridabad made surveys during 14 -17<sup>th</sup> Jan. and 29-31<sup>st</sup> Jan in Yamunanagar, Kurukshetra and Karnal districts and there was no occurrence of any rusts. During 5-7<sup>th</sup> Feb. 2013, stripe rust was observed in one field at Madhobar village of Radaur block.

Dr. M.K. Pandey and Dr. A. K. Gupta (SKUAS&T, Jammu) conducted wheat crop health survey during January 25-27, 2013 in Kathua, Samba and some parts of Jammu district. During survey, yellow rust was not observed in any farmer's field. Some blight symptom and aphids were observed in very early sown crop in two fields of Marh area (Jammu) but its severity and intensity was moderate.

On 17<sup>th</sup> January, 2013, survey was carried out by Dr. R.K. Bansal, Dr. K. K. Bhargava, and Dr. Ashok Bhatnagar, (ARS Durgapura, Jaipur) for wheat diseases and insect pest infestation in Bassi, Dausa and Jaipur. The wheat crop was healthy. No rust was observed at any of the farmer's field of Bassi (N26° 51.453, E076° 03.990, and 365m), Mohanpura (N26° 51.720, E076° 05.432, 369m), and Shyampura (N26 ° 51.732, E076° 05.436, 351m). The shootfly infestation was observed in wheat crop at few places of area surveyed, whereas few wheat fields were infested by termites at Shyampura area but termite's infestation was low to medium. The team advised the farmers for application of insecticide to manage the termite infestation in standing wheat crop.

### **Northern Hill Zone (NHZ)**

Dr. S.C. Bhardwaj, Head, DWR, Flowerdale, Shimla surveyed Bilaspur and Sirmaur districts in H.P. during January 25-27, 2013. No rust was observed anywhere.

Wheat crop health was monitored by Dr. S.K. Rana (Sr. Plant Pathologist), Dr. Vijay Rana (Wheat Breeder), Dr. Anand Prashar (SMS, Department of Agriculture) and Dr. Atul Dogra (Deputy Project Director ATMA) in Dehra, Pragpur, Fatehpur and Nagrota Surian blocks of district Kangra of HP during January 4-5, 2013. The crop health condition, in general, was good in most of the areas due to the rain received in the second week of December. The germination was uniform and crop stage(s) varied from seedling to tillering. Yellow rust did not appear at any of the locations surveyed. The grasses in vicinity of fields were critically examined/ observed for rusts, especially yellow rust but no rust was found.

Dr. Akhilesh Singh, Sr. Plant Pathologist surveyed farmers fields in villages Makari, Khulmi, Matari, Maleta, Kanfara and Saloa on January 3, 2013 and Pangwana, Bharshara, Sinwa Sandha, Tarwad, Jamli, Bhagatpur and Mayothe areas of Bilaspur during January 16-17, 2013. No rust was observed in any field. Yellow rust was observed in the field of Sh. Pyar Singh in village Manhan near Ghumarwin (Bilaspur) on January 29, 2013. Yellow rust was recorded from village Dabat in Sawarghat on DPW 621-50. Dr. J. P. Jaiswal, Dr. Deepshikha, Dr. Kanak Srivastava and Mr. R. P. Singh (GBPUA&T, Pantnagar) surveyed Bazpur, Kashipur, Gadarpur, Dineshpur, Rudrapur, Kichcha, Sitarganj, Nanakmatta, Khatima, Kathgodam, Golapur, Motahald and Ramnagar areas of Uttarakhand during January 10-12, 2013. Both timely sown and late sown crops were free from any rusts.

### **North Eastern Plain Zone (NEPZ)**

Dr. H C Lal (Ranchi) informed that wheat crop in Ranchi area was good. Only foliar blight was observed in some fields in trace. Sporadic appearance of loose smut was observed. In general, crop health was good. Dr. Atul Kumar (IARI, Pusa) informed that there was no wheat rust. Foliar blight lesions were seen on lower leaves in wheat. Dr. B.N. Singh (NDUAT, Faizabad) reported that the germination in late sown crop was good compared to timely sown crop due to natural moisture stress. The main varieties were PBW 343, PBW 502, PBW 550, PBW 154, K 307, NW 1012 and HD 2733 followed by HUW 468, NW 1067 and CBW 38. Incidence of foot rot, root rot and leaf blight symptoms were observed in some fields and in general the crop was good. Dr. B. Guha, Chief Scientist, RARS, Shillongani informed about severe infestation of cutworm in wheat trials at Shillongani centre.

### **Peninsular Zone (PZ)**

Dr. I.K. Kalappanavar and wheat scientists of UAS, Dharwad conducted extensive wheat crop health surveys during January, 2013 (1, 3, 9, 16, 17, 22, 29, 30, 31<sup>st</sup> January) in Dharwad, Kundagal, Hubli, Hukkeri, Chikkodi, Athani, Bijapur, Bagalkot, Gadag and Belgaum. Leaf rust was observed in varieties, DWR 162 (80-100S), DWR-2006 (5-10S), Bijaga Yellow (40-60S), Amruth (10-80S), MACS 9 (40MS), Kite (20MS), Local Red (80-100S), HD 2189 (20-40S) and WH 147 (20S). The scientists advised the farmers for fungicide sprays for leaf rust management. The survey was conducted in Nasik,

Nandurbar and Dhule districts of Maharashtra state during first week of Feb. 2013 by Dr. P.N. Rasal, Prof. D.A. Shambharkar and Dr. S.D. Patil of Agril. Research Station, Niphad. The crop was at earhead emergence to maturity stages. The varieties grown by the farmers were Godavari, LOK-1, NIAW 34, Mohan wonder, Trimbak and Green gold. The rust infection was not observed in any surveyed fields. However, aphids population was medium to heavy and infestation was severe. Stem borer and termites were in traces. The incidence of leaf blight was observed in many fields but its intensity was very less.

As per report received from Dr. S.C. Misra (ARI, Pune), black rust was not observed in areas such as Rajgurunagar, Manchar, Saswad, Naryangaon), Ahamadnagar (Ghargaon, Sangamner) and Nasik (Khadak Malegaon, Peth naka, Kasabesukhane). Leaf rust was observed in traces during 15-16 January in TPN planted at ARI, Pune in varieties, Lal Bahadur, Agra Local, WL 711 and HD 2160. However, leaf rust severity was 5S in variety, Local Yellow Dharwad on January 15, 2013. Leaf rust was also observed in traces in variety Lok-1 in village Khangaon (Talsangamner, Ahmednagar) on January 16, 2013. Leaf rust in traces was also observed in village Sinnar in Nasik in variety HD 2189. Dr. R.T. Sapkal (RWRRS, Mahabaleshwar) surveyed the fields during January 2013 in western Maharashtra and found that the crop was in healthy condition and there was no stem rust and only leaf rust was observed upto 30S. The crop was in tillering to boot stage. Leaf rust was also observed in ARI Germplasm nursery on variety viz. Local yellow Dharwad, Local red Dharwad, Baxi-6-1-1, A-739, HI-617 and Kharchia 65, with severity ranging from TS to 40S.

Dr. Indu Sharma, Project Director, DWR, Karnal surveyed farmers fields in Satara (Maharashtra) on January 29, 2013. Leaf rust was observed in mixture of varieties in one farmers' field in village Keanjal Taluka.

#### **Southern Hill Zone (SHZ)**

Dr. J. Kumar, Head, IARI Regional Station, Wellington noticed incipient pustules of black and brown rusts in SAARC and TPN nurseries on January 17, 2013. Yellow rust incidence was also noticed at Wellington on January 12, 2013.

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

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