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सारांश

गेहूँ की फसल में स्वास्थ्य की निगरानी आई. आई. डब्लू. बी. आर. और समन्वित केंद्रों के वैज्ञानिकों द्वारा किए गए सर्वेक्षणों के माध्यम से की गई। कुल मिलाकर गेहूँ उगाने वाले सभी क्षेत्रों में फसल का स्वास्थ्य बहुत अच्छा पाया गया। दिसंबर महीने के दौरान किसी भी रोग या कीट का कोई बड़ा प्रकोप नहीं देखा गया। हालांकि, पीले रतुआ की पहली घटना 20.12.2022 को पंजाब के रूपनगर जिले के गांव डोनल में दर्ज की गई थी। वर्तमान मौसम की स्थिति जैसे 7° से 18° सेल्सियस का औसत तापमान, सुबह में ओस के साथ धुंध आदि, विशेष रूप से पंजाब, जम्मू और हरियाणा के क्षेत्रों में पीले रतुआ की बीमारी के लिए अनुकूल हैं। ये क्षेत्र पीले रतुआ के लिए रोग-प्रवण क्षेत्र हैं। इसलिए, किसानों को सलाह दी जाती है कि वे पीले रतुआ के लिए अपने खेतों में कड़ी निगरानी रखें। यह रोग पत्तियों और पर्णछद पर पीले रंग की धारियों के रूप में प्रकट होता है, और संक्रमित पत्तियों को छूने से उंगलियों पर पीला पाउडर लग जाता है। रोग छोटे पैच या संक्रमित केंद्र-बिंदुओं से शुरू होता है और अनुकूल जलवायु में तेजी से फैलता है। जब रोग प्रकट होता है, तो प्रारंभिक संक्रमण के आगे प्रसार से बचने के लिए प्रभावित क्षेत्रों में अनुशंसित कवकनाशी जैसे प्रोपिकॉनाजोल @ 0.1% या टेबुकोनाज़ोल 50% + ट्राइफ्लॉक्सीस्ट्रोबिन 25% WG @ 0.06% का छिड़काव करें। हालांकि, सर्वेक्षण के दौरान कुछ किसानों के खेतों में बहुत कम मात्रा में जड़ गलन, पर्ण झूलसा, जड़ का माहू, गुलाबी तना छेदक एव दीमक का प्रकोप देखा गया। किसानों को बीमारी व कीटों से बचाव के लिए उचित उपाय करने की सलाह दी गई। कुल मिलाकर गेहूँ फसल का स्वास्थ्य सभी गेहूँ उत्पादन क्षेत्रों में उत्कृष्ट है और वर्तमान मौसम फसल वृद्धि के पक्ष में है।

Summary

Scientists from IIWBR and AICRP co-operating centers conducted surveys to track the health of the wheat crop. In all wheat-growing regions, the overall crop health was found to be very good. There was no notable disease or insect pest infestation recorded during December 2023. The prevailing weather conditions are foggy with mean temperature ranging from 7°C to 18°C in the areas of Punjab, Jammu and Haryana. These are favorable conditions for the development of yellow rust development in these prone areas for yellow rust. Therefore, farmers are advised to keep strict vigil in their fields for yellow rust. Disease can be identified as yellow stripes on the leaves and sheath and yellow powder came out on fingers by touching infected leaves. Disease starts with small patches or foci of infected and further spreads rapidly under congenial weather. On occurrence of disease spray affected areas with recommended fungicides, viz., Propiconazole @ 0.1 % or Tebuconazole 50 % + Trifloxystrobin 25 % WG @ 0.06% to avoid its further spread from initial infection foci. During December, very low incidence of rust, spot blotch, smut, collar rot, foot rot, root aphid, pins stem borer and termite was observed in few farmers' fields. If infestation of pink stem borer is more, spray 1000 ml of quinalphos 25%EC in 500 liters of water per ha can be done. Overall the wheat crop health is excellent in all the wheat growing areas and the prevailing weather is favourable for the crop growth.

Wheat crop health was monitored by surveys conducted by scientists from the coordinated centers, besides this used the information technology in accessing crop situation, the information collected by contacting framers and other stakeholders through mobile, and whatsapp etc. Overall the crop health is excellent. No significant crop damage due to diseases and insect infestation is observed. The state wise detail report is as follows:

Haryana and Punjab

Surveys are conducted in Haryana and Punjab to know the crop health situation. A team comprised of Dr. Ravindra Kumar, Senior Scientist (Plant Pathology) and Professor Jaspal Kaur, PAU, Ludhiana conducted wheat health crop survey for yellow rust in Yamnuanagar, Rupnagar and adjoining areas on 20.12.2022. During the wheat field visits, it was observed that at majority of fields, wheat crop was in seedling stage and free from any biotic and abiotic maladies in Yamnuanagar, Nawashehar and nearby localities. Keeping in view of prevailing favourable weather conditions in surveyed wheat fields, the farmers have been advised to keep strict vigil on the disease. They were made aware of newly released yellow rust resistance varieties like DBW370, DBW371, DBW372, DBW 327, DBW 332, DBW 327, DBW 187, DBW 303, WH 1270 and HD 3226 etc. Team also surveyed the nearby wheat fields, but no symptoms or foci of yellow rust were noticed. Overall, the health of the crop was good in different surveyed sites.



A team of scientists comprising of Dr. Hari Ram, Principal Agronomist and Dr. Beant Singh, Principal Entomologist surveyed district of Moga, Sri Muktsar Sahib and Bhatinda on 15-12-2023, district of Ludhiana, Barnala, Mansa and Sangrur on 19-12-2023, districts of Malerkotla, Patiala and Fatehgarh Sahib on 20-12-2023, districts of Ferozepur and Fazilka on 22-3-2023, for the incidence of pink stem borer (PSB) and general wheat crop health. Out of the total surveyed area, in 44% area wheat crop is sown with super seeder, 17% with conventional tillage, 17% with rotavator, 15% with zero drill and 7% with Happy seeder. Out of the total surveyed area, approx. 95% cropped area was free pink stem borer incidence, 1-5% pink stem borer incidence was recorded in about 3-4% area and 8-10% incidence in less than 1% area. About 1% area was found to be affected with general yellowing of the crop due to water stagnation in the fields. This yellowing was mainly observed in some fields of Muktsar, Mansa, Sangrur and Patiala districts. In general, the crop is free from all other major insect pest and diseases. The farmers were advised to remain vigilant and use recommended integrated nutrient and pest management practices for the maintenance of wheat crop health.



Uttar Pradesh

As per the survey report from Kanpur, situation of wheat and barley crop was good. However, termite infestation was observed in some barley fields planted under rainfed condition. The aphid infestation was observed in 01-02 aphid/plants in barley irrigated and rainfed crop, however aphid infestation was not observed in wheat crop. No incidence of disease was observed in field but of brown rust disease was initiated in polyhouse planted wheat crop. Further, no incidence of rust and foliar blight on wheat was reported from Sultanpur, Jaunpur and Ayodhya districts of Uttar Pradesh. However, in some fields only yellowing was observed. In farmer's fields, the major wheat varieties sown were DBW 187, HD2967, DBW222, HD2777 and NW 5054.

Madhya Pradesh

Wheat health survey conducted during the month of December 2023 covers Narmadapuram and neighboring four districts viz. Harda, , Raisen, Sehore and Narsinghpur. In Narsinghpur district, many villages viz. Jhekoli, Kamti, Salichauka and many others were surveyed. The crop health condition was good except very few places near saikheda block of tehsil, Gaderwada and nearby areas, where, in Patches *Rhizictonia* root rot and subsequent yellowing was evident, hence spot corbendazim drenching was recommended. . Here most of the crop is under timely sown irrigated conditions. Root aphid problem was also seen in early sown fields. But because of continuous low temperature the insect problems are now subsided. In some areas of District Sehore near Budhani, Gadarianalla, and Nasrullaganj, the crop excellent and under timely sown condition where as in many other areas viz, Ramnagar, baneta, dobhi , jait, Khetawari, Bakhtara , Chandawad the crop was in Late to very Late sown Irrigated and RI condition. Further the cross sowing and excessive seed rate had worsened the situation, But here again the younger leaves are normal. In raisen district, Badi, Bavai, Harsil Barelli, and bamhuri areas were surveyed. Here in this area most of the crop was under late to very late sown condition. In Harda district, charkheda, areas in Timerni Tehsil and kodala upari, manasgaon, and many more in Harda, Tehsil and Kalkund, Rehatkala, bandimohadia, Khudia , Sirali and various areas in Khidkiya Tesils were visited for prevailing crop health situation. Here in this district the crop condition is very good. Most of the crop was in early sown and timely sown condition. There was no any disease and insect problem. In Narmadapuram district, Shivani Malva, Dharamkundi, Sawalkheda, Palsdoh, Kandrahedi, Dolaria, Ratwada, Itarsi Babai and Hoshangabad areas were observed for overall crop health situations . The crop is under timely sown to slightly late sown irrigated condition. Almost entire area's crop health situation is excellent. Everywhere newly released varieties like MP 3382, MP1203, MP 3288, HI 1544, HI 8459, GW 322, Sriram 303 were sown by the farmers. Overall the crop health situation in entire Central Narmada valley and adjoining areas was apparently excellent.



Field surveys were conducted by Dr. T. L. Prakasha, ICAR-IARI, RS, Indore Indore in the month of December, 2023 to assess the status of wheat health in Indore, Ujjain, Dhar, Ratlam and Dewas districts. The bread wheat varieties like GW 322, DBW 187, HI 1544, HI 1605, HI 1634, HI 1636, Lok 1 and durum varieties like HI 8713, HI 8737, HI 8759, HI 8777 are being cultivated in these areas. The growth of wheat was satisfactory in most of the fields visited. Light showers in the last week of November also benefitted wheat crop. In the surveyed area, there was no stem/leaf rust incidence, however, in some fields of Ashta, Indore area, collar rot was observed. Armyworm, stem borer, and root aphid infestation was reported in certain fields of Indore, Dhar, and Sehore districts. Suitable crop protection measures were also issued to farmers through advisories.



Rajasthan

A survey was conducted by Dr P.S. Shekhawat on 21-12-2023 in the area of district Dausa, Rajasthan. There was no incidence of rust in the surveyed area. However, mild infestation of termite in wheat crop was noticed in few fields. Overall both wheat and barley crops were healthy.

Gujarat

To know the health status of wheat crop, a survey was conducted by R. V. Thakkar Asstt. Res. Sci. (Pl. Path) in Vijapur Taluka, Mahesana district on 29.12.2023. In this area, most of the farmer sown wheat crop around December 10, 2023 due previous crop standing. Overall crop conditions are good. There are no symptoms of any pest and diseases are observed at this stage.



Another survey in Gujarat was carried out in the Junagadh district by Dr. I. B. Kapadiya, Assistant Research Scientist (Pl. Path), JAU, Junagadh and Dr. A. G. Pansuriya on 14.12.2023. Most of the wheat in this area was sown in the second week of November. No symptoms of any diseases and insect pests were observed in this area. In some areas, yellowing of wheat leaves was noticed but overall crop growth was good.



Bihar

An extensive surveys were conducted in the month of December to assess the status of wheat & Barley crop health at Bhagalpur and their adjoining areas by survey team group namely Dr C. S. Azad, Dr Sudhir Kumar, Dr Seema and Sri Ambedkar Kumar on dated 16.12.2023 and 17.12.2023 and it was found that the crop germination was very good and no incidence of any major disease and insect pest was noticed at farmer's field viz. Barari, Jagdishpur, Nathnagar, Sabour and Kahalgaon except spot blotch in barley crop with severity ranges from 01 to 12 on flag leaf and penultimate leaf. Overall growth and development of wheat crop was good at these locations.



West Bengal

A team of three scientists, Shri Raghunath Mandal, Dr Anirban Maji and Dr Shyamali Das conducted survey to overview the disease and insect pest scenario at the present crop growth stage of wheat. Farmers' plots from Kalyani and Chakdah block of Nadia district were included in this survey. Most farmers have grown wheat variety HD2967, PBW343 and Sriram 303. It was also observed from the survey that due to heavy rainfall during 1st week December wheat crop stand in the field was affected due to water stagnation. No disease symptoms were observed in the field during the time of survey, but sporadic infestation of termites was observed in the field.



Another wheat survey was conducted around the Coochbehar and Malda districts by a team comprising of Dr. Satyajit Hembram (Plant Pathology) and Research Scholar Mr. Gnanasing on 27.12.2023 and 28.12.2023. The crop was healthy and there was no occurrence of any rusts and spot blotch of wheat. The crop stage varied from seedling to tillering. Farmers were also educated about the diseases of wheat and their management. After first irrigation natural incidence of seedling blight was noted in few genotype of Barley nursery but in wheat there was no initiation of spot blotch and other diseases in of the trials.



Healthy wheat crop and barley crop infected with blight

Maharashtra

The survey of wheat crop was conducted in Mahabaleshwar area in the month of December 2023 by Dr. M. A. Sushir, Junior Wheat Pathologist, Dr. V. M. Sali, Junior Plant Pathologist, Dr. S. B. Dighule, Senior Research Assistant, Dr. D. P. Deshmukh, Wheat Rust Mycologist and Dr. D. S. Kadam Asstt. Prof.(Hort.) RWRRS Mahabaleshwar, Dist. Satara (Maharashtra).

Normal sown wheat crop was in seedling stage where sowing of late sown wheat crop was in progress. No incidence of leaf and stem rust was observed on farmer's field as well as on wheat trap nurseries in Maharashtra till date. Whereas, leaf and stem initiation is observed on artificial inoculated wheat rust disease nursery of RWRRS, Mahabaleshwar. Overall wheat crop is found healthy and free from pest and diseases in our locality.

Karnataka

The survey was conducted by Dr. Gurudatt M. Hegde, Senior Scientist (Plant Pathology) Mr. S.V.Kulkani (Technical officer) Mr. Indakumar Chavadal (Field Assistant) during December month (05.12.2023, 07.12.2023 and 19.12.2023). The crop was at tillering to flowering stage. The stem rust and leaf rust incidence was noticed to the extent of 10S and 5MS, respectively. During this year the stem rust was noticed earlier to the leaf rust in the farmers' fields. . This may be due to the rise of day and night temperature during December 2023. The leaf blight was in the range of 00-34. The stem rust range was from 0 to 10S, while the leaf rust range was from 0-5MS. Foot rot was noticed to an extent of 2-10%. Fusarium Head Blight was noticed in some places in the range of 5-10%. The insects like shoot fly (0-1%), stem borer (0-1%) and leaf folders (0-5%) were also recorded.



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Compiled and Edited by: Poonam Jasrotia, Prem Lal Kashyap, Ravindra Kumar and G. Singh
Phone: 0184- 2209197, Fax: +91-0184-2267390 **E. mail:** picp.iwbr@icar.gov.in; **Website:** www.iwbr.org.in