

## WHEAT CROP HEALTH NEWSLETTER

गेहूं फसल स्वास्थ्य समाचार पत्रिका



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## सारांश

ए.आई.सी.आर.पी. सहयोगी केंद्रों के वैज्ञानिकों ने गेहूं की फसल के स्वास्थ्य की निगरानी के लिए सर्वेक्षण किया। गेहूं उगाने वाले सभी क्षेत्रों में फसल का स्वास्थ्य उत्कृष्ट देखा गया। दिसंबर 2024 में कोई उल्लेखनीय बीमारी या कीट संक्रमण की सूचना नहीं मिली। अधिकांश दिसंबर के दौरान तापमान उच्च स्तर पर था। पीले रतुआ के विकास के लिए परिस्थितियाँ अनुकूल नहीं थीं। हालांकि आने वाले दिनों में किसानों को पीला रतुआ प्रभावित क्षेत्रों में पीले रतुआ को लेकर अपने खेतों में कड़ी निगरानी रखने की सलाह दी जाती है। रोग को पत्तियों और आवरण पर पीली धारियों की उपस्थिति और संक्रमित पत्तियों को छूने पर उंगलियों पर पीले पाउडर की उपस्थिति से पहचाना जा सकता है। यह रोग छोटे-छोटे धब्बों या संक्रमण के केंद्र के रूप में शुरू होता है और यदि मौसम अनुकूल हो तो रोग तेजी से फैलता है। रोग फैलने की स्थिति में, किसानों को सलाह दी जाती है कि वे रोग को संक्रमण के प्रारंभिक स्थल से फैलने से रोकने के लिए प्रभावित क्षेत्रों पर अनुशंसित फफूंदनाशकों प्रोपिकोनाज़ोल 0.1% या टेबुकोनाज़ोल 50% + ट्राइफ्लोक्सीस्ट्रोबिन 25% डब्ल्यूजी 0.06% का छिड़काव करें। दिसंबर महीने में, कुछ किसानों ने अपने खेतों में गुलाबी तना छेदक और दीमक की बहुत कम घटना देखी। यदि गुलाबी तना छेदक कीटों का नुकसान अधिक है, तो प्रति हेक्टेयर 500 लीटर पानी में 1000 मिलीलीटर क्विनालफॉस 25% ईसी का छिड़काव करने की सलाह दी जाती है। कुल मिलाकर सभी गेहूं उत्पादक क्षेत्रों में गेहूं की फसल का स्वास्थ्य उत्कृष्ट है और मौजूदा मौसम फसल की वृद्धि के लिए अनुकूल है। समन्वित केंद्रों के वैज्ञानिकों द्वारा किए गए सर्वेक्षणों के माध्यम से गेहूं की फसल के स्वास्थ्य की निगरानी की गई। सर्वेक्षणों और सूचना प्रौद्योगिकी के माध्यम से मोबाइल उपकरणों और व्हाट्सएप के माध्यम से किसानों और हितधारकों से संपर्क करके फसल स्वास्थ्य की निगरानी की गई। बीमारियों या कीटों से फसल को कोई खास नुकसान नहीं हुआ है। विस्तृत राज्यवार रिपोर्ट उपलब्ध हैं।

## Summary

Scientists from the AICRP cooperating centres conducted surveys to monitor wheat crop health. Crop health was judged to be excellent throughout all wheat-growing regions. There were no noteworthy disease or insect pest infestations reported in December 2024. The temperature was on higher side during most of December. Conditions were not congenial for yellow rust development. However, for the coming days farmers are advised to keep strict vigil in their fields for yellow rust in yellow rust prone areas. The disease can be recognized by the presence of yellow stripes on the leaves and sheath and also yellow powder on fingers by touching the infected leaves. The disease begins as small spots or foci of infection and spreads rapidly if the weather is favorable. In case of disease outbreak, farmers are advised to spray the affected areas with the recommended fungicides i.e. Propiconazole 0.1% or Tebuconazole 50% + Trifloxystrobin 25% WG 0.06% to prevent the disease from spreading from the initial site of infection. In December, some farmers observed very low incidence of pink stem borer and termites in their fields. If the damage of pink stem borer pests is high, spraying of 1000 ml of quinalphos 25%EC in 500 liters of water per ha is recommended. 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 through surveys conducted by scientists from coordinated centers. Crop health was monitored by surveys and through information technology by contacting farmers and stakeholders via mobile devices and WhatsApp. There is no significant crop damage from diseases or pests. Detailed state-wise reports are available:

## Punjab

Surveys were conducted in Punjab to know the crop health situation. Given favorable weather conditions, farmers have been advised to remain vigilant against the disease and timely advice was provided to them through Whatsapp, SMS and newspapers by ICAR-Indian Institute of Wheat and Barley Research, Karnal. Overall, the crop condition was good in the various fields surveyed. Surveys were conducted by Punjab Agricultural University and KVK scientists of Ludhiana in the foothills regions of Punjab to check for yellow rust in December. None of the fields surveyed was infected with yellow rust.

A team of scientists comprising of Dr. Beant Singh, Principal Entomologist, Department of Plant Breeding and Genetics and Dr. Sudhendu Sharma, Senior Entomologist, Department of Entomology of PAU surveyed districts of Ludhiana, Moga and Faridkot on 11-12-2024 for the incidence of pink stem borer (PSB), other insect-pests and general wheat crop health. Dr. Amandeep Singh Brar, Deputy Director, Kishi Vigyan Kendra, Moga and Dr. Sandeep Singh, Assistant Professor of Plant Protection, KVK Moga, also joined the surveillance team in the districts of Moga and Faridkot. Minor incidence of pink stem borer was observed in village Salina and Nidanwala in Moga district and village Mandwala in Faridkot district. Out of the total surveyed area, approximately 97% cropped area was free from pink stem borer. An incidence of 1.0-3.0% pink stem borer was observed in 1.5% area and an incidence of 3.0-7.0% was recorded in rest of area (1.5%). In one of the super seeder sown fields, the problem of crop germination was also observed. In general, the crop was free from all other major insect-pests and diseases. The farmers were advised to remain vigilant and to use recommended integrated pest management practices.

The surveys were conducted by Dr Jaspal Kaur and KVKs scientist of PAU in the submountaineous districts of Punjab for the occurrence of stripe rust in the month of December. All the surveyed fields were free from stripe rust.





## **Jammu**

Survey was conducted on 31.12.2024 in the areas of district Jammu by Dr. M. K. Pandey, Chief Scientist, Wheat Pathologist, SKAUST-Jammu to know the health status of wheat crop at farmer's field. The survey was conducted on the route starting from Khandwal via Chatha, Miran



Sahib, Sumbal Camp, Tinday, RS Pura, Badyal Qazian and Chakri. No rust was observed in surveyed areas. However, incidence of spot blotch was observed in moderate form in some fields. In some fields lower leaves yellowing was evident. Keeping in view of the congenial weather conditions for the occurrence of yellow rust disease in the surveyed wheat fields, farmers were advised to maintain strict vigilance against yellow rust. Overall, the health of the crop was reported to be good at the different surveyed sites.

## **Madhya Pradesh**

Wheat crop health survey carried out by Dr KK Mishra during 26-29 December, 2024 covered Narmadapuram and neighboring five districts viz., Harda, Raisen, Betul, Sehore and Narsinghpur. In Narmadapuram district, more than 25 locations/villages including Rohan, Patlai, Khedla, Baikhedi, Dolaria, Bhilatdev, Bhairapur, Byawora Nitaya, Raisalpur, Panjarakala and many others across 6 tehsils (Sadar tehsil, Sivnimalva, Dolaria, Makhannagar, Sohagpur and Piparia) were surveyed. Overall, the crop health condition was very good. In Most of the areas crop was around 30-40 days old looking lush green and healthy. In the district Narsinghpur, many villages viz, Saikheda, Dewori, Banwari, Bahedia etc. of Gaderwada and Saikheda tehsil were observed. It was found that in

most of the places timely sown irrigated conditions crop condition was very good. While in most areas of District Sehore near Budhani, Gadarianalla, and Nasrullaganj the crop was excellent 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 condition.



Also villages Ranipur, Jamania, Chhipani, Dhawalpur and Baghwar were visited have sown recently released varieties viz., DBW 187, HI 1634 and Tejas shows excellent crop growth. In Raisen district, malibaya, Badi, Bareli, Harsil, Barelli, chargaon, Bori, Silarikhurd, chiklod, Sultanpurjod and Obedullaganj areas were surveyed. Here in this area most of the crop was under very good condition. In Harda district, Charkheda, Pagdhal areas in Timerni Tehsil and Kodalaupari, Masangaon, Bhuwankheda, Chipaner, Kartana, and many more in Harda, Tehsil and Kalkund, Rehatkala, Bandimohadia, Sirali and various areas in Khidkiya Tesils were visited for prevailing crop health situation. Most of the crop was in early sown and timely sown condition. There was no disease and insect-pest problem. In Betul district, the crop was mostly timely sown and few in restricted irrigation condition. Almost in entire area across 5 districts under survey, crop health situation was excellent. Everywhere newly released varieties like MP 3382, MP1203, HI 1544, HI 8759, GW 322, DBW 303, HI 1634, and MP 1323 were sown by the farmers. Overall, the crop health situation in entire Central Narmada valley and adjoining areas was apparently excellent.

Indore, Ujjain, Dhar, Ratlam and Dewas districts field surveys were conducted by Dr. T. L. Prakasha, ICAR-IARI, RS, Indore in the month of December, 2024 to assess the status of wheat health. The bread wheat varieties like GW322, DBW187, HI1544, HI1605, HI1634, HI1636, 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.

## **Bihar**

A field survey was arranged under the AICRP Wheat and Barley program, BAU Sabour on 24.12.2024 during which Drs Deepak, Seema Prajapati and Shraddha Sawant visited farmers' wheat field in Mirzapur and Khankita villages of Bhagalpur district. The objective of the visit was to assess the health and crop condition and engage with local farmers regarding their cultivation practices. The status of wheat crop was noticed in a healthy condition, showing no symptoms of rust, leaf blight and other concerned diseases. Farmers present during the visit shared valuable insights into their farming methods, highlighting their commitment to maintain good crop. The visit concluded positively, with the team encouraging the farmers to continue their effective practices and remain vigilant for any potential disease issue to sustain their crop yields.

## **West Bengal**

In December 2024, information gathered from a survey and officials from the Agriculture Department of West Bengal indicated that the wheat crop in farmers' fields is currently in the tillering stage and is experiencing good health. There was some evidence of yellowing in fields that are part of the rice-wheat cropping system. Overall, the weather has been favorable for crop development, and there were no significant outbreaks of any diseases or insect pests observed by the team. The wheat field survey was done by a team comprised of Dr. Satyajit Hembram (Plant Pathology) and Mr.



Manmatha Hansda., UBKV, CoochBehar. On the 15th and 16th of December 2024, the team assessed the crop and disease status in the Cooch Behar, Dakshin Dinajpur, and Malda districts.

The crop was healthy and no occurrence of any rusts or spot blotch of wheat was observed. The crop age varied from seedling to tillering stage. Keeping in view of prevailing favourable weather conditions in surveyed wheat fields, we advised the farmers to closely monitor the disease and implement recommended integrated nutrient and pest management practices to maintain the health of the wheat crop. They observed no natural occurrence of seedling blight or spot blotch on wheat and barley in any trials. A survey was conducted on 23<sup>rd</sup> and 24<sup>th</sup> December 2024 in the adjoining area of BCKV Kalyani Centre comprising a team of three scientists Dr. Raghunath Mandal, Dr Anirban Maji and Dr Shyamali Das to overview the disease and insect pest scenario at the present crop growth stage of wheat.



Farmers' plots from Kalyani block of Nadia district were included in this survey. Most farmers have grown wheat variety HD2967, PBW343 and Sriram 303.

No disease symptoms were observed in the field during the time of the survey, but sporadic infestation of termites was observed in the field as shown in photograph below.



### **Maharashtra**

During the meteorological year 2024, Agricultural Research Station, Niphad recorded a total rainfall of 828.8 mm over 57 rainy days, exceeding the average rainfall of 552 mm. The rainfall was well-distributed throughout the rainy season, contributing to an increase in the area under wheat cultivation. In most parts of Maharashtra, temperature remained on the higher side during the month. Minimum temperature dropped below 10°C in the second week of December but increased thereafter. Farmers reported issues in wheat crops, including tip burning, yellowing of leaves, shoot fly infestation, and stunted growth. Accordingly, suitable management practices were suggested. Although older leaves showed signs of leaf blight infection, the incidence was very low. Notably, there were no reports of leaf rust or stem rust in farmers' fields. Overall, the wheat crop condition was satisfactory.

The survey of wheat crop was conducted in Mahabaleshwar area in the month of December 2024 by Dr. M. A. Sushir, Junior Wheat Pathologist, Dr. V. M. Sali, Junior Plant Pathologist, Dr. D. S. Kadam, Wheat Rust Mycologist and Dr. S. B. Dighule, at RWRRS Mahabaleshwar, Dist. Satara. (Maharashtra). Normal sown wheat crop was in



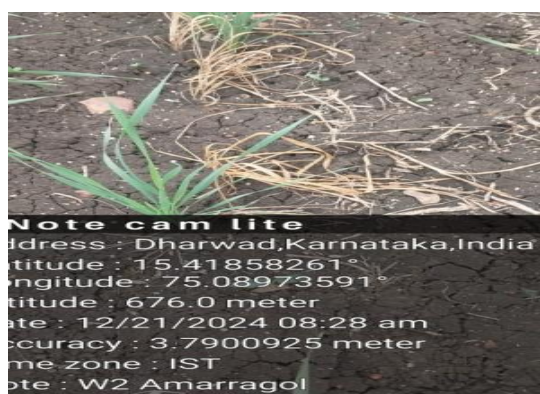
seedling stage wherein, sowing of late sown wheat crop was going on. No incidence of leaf and stem rust was observed on farmer's field as well as on wheat trap nurseries in Maharashtra till date. Whereas, leaf and stem rust initiation was observed on artificial inoculated wheat rust disease nursery of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

Wai, Khandala, Daund and Ahilyanagar areas were surveyed on 06.12.2024. The crop was at seedling stage and reported healthy and free from pest and diseases. In Danawali, Kaswand, Dhawali Bhilar, Taldev, and Mahabaleshwar, Bondarwadi, Kedambe and Kelghar areas the crop was under sowing and seedling stage. The crop was free from disease and pest infections however yellowing symptoms due to nutritional deficiency were observed in some pockets.

### **Karnataka**

The crop health survey was conducted by Dr. Gurudatt M. Hegde, Mr. S.V. Kulkani Dr. Uday G. Reddy and Dr. Kumar Lamani during December month (10-12-2024, 15-12-2024 and 21-12-2024) in Gadag, Dharwad, Belagavi and Baglkot districts of Karnataka. It was observed that nearly 2.0 lakh ha of Wheat crop was sown comprising of bread, durum and Dicoccum wheat. In Gadag district it's mainly the rainfed wheat under cultivation comprising of UAS-347, UAS-375 and Amrut. While, in irrigated conditions it was UAS-334, UAS-304, LoK-1, DWR-162 are being cultivated apart from few private varieties. The temperature ranged between 13.5 °C to 31.0 °C with the cloudy weather in between. The rust was not observed in any of the farmers' fields; however, hypersensitive reactions were noticed in irrigated bread wheat in Dharwad and Belagavi districts. The cloudy weather was very much favourable for leaf blight/spot blotch incidence which was recorded to an extent of 05-10 percent under irrigated conditions, while it was up

to 05 percent in rainfed conditions. The foot rot incidence was recorded to an extent of 05-10 percent in the rainfed ecosystems. The Fusarium head blight was in traces (1-2 percent) in Belagavi district in the early sown wheat varieties. The stem borer incidence (1-2 Percent) was also recorded in rainfed conditions of Gadag district. The suitable remedial measures were suggested to the farmers as per the university recommendations.



Foot rot incidence (Gadag District) Fusarium head blight in traces (Belagavi)

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