

Session: Varietal Identification Committee meeting

Proceedings of Varietal Identification Committee meeting of Wheat and Barley

The meeting of Varietal Identification Committee of Wheat & Barley was held on 7th October, 2024 under the Chairmanship of Dr. D K Yadava, ADG (Seed), ICAR, ICAR through virtual mode. The following members of the committee approved by Deputy Director General (Crop Science) participated in the meeting:

1. Dr. D K Yadava, ADG (Seed), ICAR, Krishi Bhawan New Delhi
2. Dr. P K Singh, Agriculture Commissioner, DA&FW, MoA&FW, GOI,
3. Dr. S K Pradhan, ADG (FFC), ICAR, Krishi Bhawan New Delhi
4. Dr. Sanjay Kumar, Director, ICAR-IISS, Mau Nath Bhanjan
5. Dr. A K Singh, Director Agriculture, UP Govt., Lucknow
6. Dr. Aseem Gangwar, Regional Manager, NSC, Uttar Pradesh.
7. Dr. A K Gangwar, Director Research, ANDUAT, Ayodhya, Uttar Pradesh
8. Dr. N S Bains, Ex-Director Research, PAU, Ludhiana
9. Dr. S C Bhardwaj, Emeritus Scientist, IIWBR-RS, Flowerdale, Shimla
10. Dr. P K Rai, Head, Varietal Seeds India, Tata Rallis Pvt. Ltd.
11. Dr. Ratan Tiwari, Director, ICAR-IIWBR, Karnal (*Member Secretary*)

All Principal Investigators (PI) from IIWBR, Karnal also attended as Non-Voting members.

Identification proposals of 19 genotypes of wheat and three of barley were received for consideration in the VIC. Variety-wise detailed presentations on performance of each variety including yield, reaction to biotic and abiotic stresses, quality and other ancillary characters were made by the member secretary. After detailed deliberations, the following recommendations as indicated against each proposal were made:

Wheat

1. **NWS2222**: This wheat genotype had a yield advantage of more than 6 *per cent* over the best check variety and was also resistant to rusts. It **was identified** for release under irrigated timely sown conditions of Peninsular Zone (PZ) comprising of the states of Maharashtra, Karnataka and plains of Tamil Nadu.
2. **PBW891**: The genotype PBW891 was having yield advantage of more than 3 *per cent* over the best check and also high protein content (12.6%) and bread loaf volume (610cc). The committee **identified** the variety for release under irrigated timely sown conditions of Peninsular Zone (PZ), comprising of the states of Maharashtra, Karnataka and plains of Tamil Nadu.
3. **WH1306**: WH 1306 has high yield and superior grain quality parameters such as protein content (12.1%), Iron content (40.8ppm) and Zinc content (40.6ppm). Committee recommended the **identification** of this genotype for release under irrigated timely sown conditions of Peninsular Zone (PZ), comprising of the states of Maharashtra, Karnataka and plains of Tamil Nadu.


4. **AKAW5100**: This wheat genotype had high protein (12.5%) and bread loaf volume (608cc), along with high disease resistance. It **was identified** for release under irrigated timely sown conditions of Peninsular Zone (PZ), comprising of the states of Maharashtra, Karnataka and plains of Tamil Nadu.
5. **DBW443**: The wheat genotype was proposed as a biofortified variety based on its excellent grain quality, with protein content of 13.5% and high micronutrient content of 42.1 ppm Iron & 42.6 ppm Zinc. It **was identified** for release under irrigated timely sown conditions of Peninsular Zone (PZ), comprising of the states of Maharashtra, Karnataka and plains of Tamil Nadu.
6. **NIAW4114**: Wheat genotype proposed, had a yield advantage of more than 3 *per cent* over the best check, was rust resistant and had good grain quality. It **was identified** for release under irrigated late sown conditions of Peninsular Zone (PZ), comprising of the states of Maharashtra, Karnataka and plains of Tamil Nadu.
7. **NIAW4120**: This wheat genotype proposed under irrigated late sown conditions of Peninsular Zone (PZ), had no yield advantage over the check varieties hence **was not-identified**.
8. **HI1674**: HI1674 had better rust resistance and grain quality traits such as protein (12.6%), iron content (40.1ppm), zinc content (42.6ppm). Based on quality traits and resistant to rust, the variety is **identified** for release under irrigated late sown conditions of Peninsular Zone (PZ), comprising of the states of Maharashtra, Karnataka and plains of Tamil Nadu.
9. **LOK79**: This wheat genotype had superior rust resistance, improved quality traits viz., protein (12.6%), iron content (44.4ppm) and zinc content (42.4ppm). It was **identified** for release under irrigated late sown conditions of Peninsular Zone (PZ), comprising of the states of Maharashtra, Karnataka and plains of Tamil Nadu.
10. **HI1669**: It had yield superiority (> 4.0%) over best check along with rust resistance. It was **identified** for release under irrigated timely sown conditions of Central Zone (CZ), comprising of the states of Madhya Pradesh, Gujarat, Rajasthan (Kota & Udaipur Divisions) and Chhattisgarh states, Jhansi Division of UP.
11. **HI1674**: It had yield superiority (> 7.0%) over best check along with rust resistance. The wheat variety was **identified** for release under irrigated late sown conditions of Central Zone (CZ), comprising of the states of Madhya Pradesh, Gujarat, Rajasthan (Kota & Udaipur Divisions) and Chhattisgarh states, Jhansi Division of UP.
12. **CG1044**: This wheat genotype, proposed under high fertility early sown conditions of Central Zone, had high levels of susceptibility to black (ACI=19.0) and brown (ACI=18.4) rusts. Performance in agronomic trials was also poor. No significant edge in quality parameters in comparison to qualifying entries, hence it was **not recommended for identification**.
13. **GW543**: This wheat genotype GW543, proposed for high fertility irrigated conditions, had yield advantage and rust resistance in comparison to the checks and qualifying varieties. It was **identified** for release under high fertility early sown conditions of Central Zone (CZ), comprising of the states of Madhya Pradesh, Gujarat, Rajasthan (Kota & Udaipur Divisions) and Chhattisgarh states, Jhansi Division of UP.
14. **DBW441^M**: This MABB wheat genotype for restricted irrigation timely sown conditions of CZ **was not-identified** for release due to its high susceptibility to black rust. Also, there was no significant advantage in yield and grain quality.

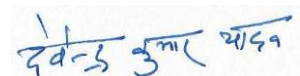
15. **DBW386**: This variety had yield superiority over the check varieties and better disease resistance. It was **identified** for release under irrigated timely sown conditions of North Eastern Plains Zone (NEPZ), comprising of the states of Eastern UP, Bihar, Jharkhand, Orissa, West Bengal, Assam and plains of NE States.
16. **HD3428**: This wheat genotype was having yield advantage, and disease resistance in comparison to the check varieties. Also, it had better grain quality traits. It was **identified** for release under irrigated late sown conditions of North Western Plains Zone (NWPZ), comprising of the states of Punjab, Haryana, Delhi, Rajasthan (excluding Kota and Udaipur), Western Uttar Pradesh (except Jhansi), Jammu and Kathua district of Jammu & Kashmir, Paonta Valley and Una district of HP and Tarai region of Uttarakhand.
17. **HII668**: The wheat genotype proposed under irrigated timely sown conditions of NWPZ, had no yield advantage against the best check and recently released variety HD3386. Also, it was highly susceptible to yellow rust races under SRT screening, hence was **not identified**.
18. **DBW386**: This genotype proposed under irrigated timely sown conditions of NWPZ, had no yield advantage against the best check and recently released variety HD3386. Also, it was highly susceptible to yellow rust races under SRT screening, hence was **not identified**.
19. **HD3471^M**: This MABB wheat genotype proposed under irrigated timely sown conditions of NWPZ. QTLs for drought tolerance were introgressed in this variety but these were not validated under field conditions, hence the committee recommended for field validation of introgressed trait by testing for one more year under stresses environment of limited irrigation i.e. AVT-II-RI-TS-NWPZ.

Barley

20. **DWRB223**: The barley variety had higher yield advantage, disease resistance and improved grain quality attributes in comparison to the check varieties. It was **identified** for release under irrigated timely sown conditions of North Western Plains Zone (NWPZ), including Punjab, Haryana, Delhi, Rajasthan (excluding Kota and Udaipur), Western Uttar Pradesh (except Jhansi), Jammu and Kathua district of Jammu & Kashmir, Paonta Valley and Una district of Himachal Pradesh and Tarai region of Uttarakhand.
21. **UPB1106**: The barley variety had higher yield, disease resistance and better grain quality traits in comparison to the check varieties. It was **identified** for release under irrigated timely sown conditions of North Eastern Plains Zone (NEPZ), including Eastern UP, Bihar, Jharkhand, Orissa, West Bengal, Assam and plains of NE States.
22. **KB2031**: This variety had superior yield performance, disease resistance and improved grain quality attributes in comparison to the check varieties. It was **identified** for release under irrigated timely sown conditions of North Western Plains Zone (NWPZ) including Punjab, Haryana, Delhi, Rajasthan (excluding Kota and Udaipur), Western Uttar Pradesh (except Jhansi), Jammu and Kathua district of J & K, Paonta Valley and Una district of Himachal Pradesh and Tarai region of Uttarakhand; and North Eastern Plains Zone (NEPZ) including Eastern UP, Bihar, Jharkhand, Orissa, West Bengal, Assam and plains of NE States.

The Meeting ended with the thanks to the Chair and members of the committee.


(Dr. Ratan Tiwari)
Member Secretary


(Dr. D K Yadava)
Chairman