

**Proceeding of online meeting on AICRPW&B: Discussion and finalization
of wheat quality work plan 2022-23**

Chairman: Dr. G.P. Singh, Director, ICAR-IIWBR, Karnal

Co-chairman: Dr. Sewa Ram, PI, Quality & Basic Sciences

Rapporteur: Drs. Sunil Kumar & OP Gupta

Date: 12.08.2022; **Time:** 2.30PM

1. With the permission of the chairman, Dr. GP Singh, Director, ICAR-IIWBR, Karnal, online meeting started with the formal welcome of all the participants by Dr. Sewa Ram, PI Quality. A total of 35 scientists including breeders representing AICRP centres across the country participated in the meeting.
2. Dr. Sewa Ram presented the work plan of wheat quality for the year 2021-22 and several changes were made in the allotment of different NIVTs to different centres for quality analysis. Details of the revised work plan is attached.
3. He also emphasized that recommendations with respect to wheat quality should be followed strictly for conducting trials for identifying superior cultivars for quality. This has become necessary as the value of some of the quality traits are influenced highly by the growing conditions. For example either extremely low protein content (<9.0%) or extremely high Zn content (average value >50.0 ppm) were observed at some of the centres.
4. The chairman recommended that all the centres must supply data on soil Fe, Zn and nitrogen status for further understanding the reasons behind the variations in these traits across locations. He also emphasised that samples from mandi or farmer,s field must be provided by all the centres conducting trials for quality traits from 2022-23 onwards.
5. Dr. Anju Mahendru Singh raised the issue of end product testing of QCWBN entries and the issue was discussed at length and it was decided that end product quality will be assessed only of those entries in AVT 1st year which were promoted based on quality traits. It was clarified by Dr. Gyanendra Singh, PI Crop Improvement that exceptionally superior quality traits are given due consideration for promotion of entries and in variety identification taking into criteria of numerically superiority in yield. It was decided that numbers of entries may be increased for QCWBN for accommodating few more entries with better end product quality. Data of the end product should be provided while submitting the entry for tesing under QCWBN.
6. There was a concern that despite low soil Zn content at ARI, Pune, very high Zn content (>50 ppm) was observed in QCWBN entries grown at the centre. It was suggested that due care must be taken by all the centres while taking soil samples as well as estimating Fe and Zn using standard methods.

The meeting ended with a formal vote of thanks by Dr. Sunil Kumar.

(Sewa Ram)
PI, Wheat Quality

Sewa Ram
12/8/22

(G.P. Singh)
Director, ICAR-IIWBR, Karnal

G.P. Singh
12.8.22

Proposed Work Plan Wheat Quality (2022-23)

The detailed proposed work plan for 2022-23 is given below.

NIVT and IVT

NIVT and IVT entries will be analysed for grain appearance score, test weight, protein content, and sedimentation value in both *aestivum* and durum wheat genotypes. In addition, phenol reaction in bread wheat and yellow berry and yellow pigment in durum wheat will also be analysed.

- **NIVT 1A** (Irrigated Timely Sown) samples from Ludhiana, Hisar, Durgapura, Delhi, Pantnagar (NWPZ), and Kanpur, RPCAU-Pusa, Varanasi and Sabour (NEPZ) **and** **5A (NWPZ)** (Restricted Irrigation Timely Sown) from Pantnagar, Hisar, Ludhiana, Durgapura, Delhi will be analysed at **PAU, Ludhiana**.
- **NIVT 1B** (Irrigated Timely Sown) from Ludhiana, Hisar, Durgapura, Delhi, Pantnagar (NWPZ), Kanpur, RPCAU-Pusa, Varanasi and Sabour (NEPZ) **and** **NIVT 6 (NWPZ)** from Ludhiana, Hisar, Delhi, Pantnagar samples will be analysed at **RAU, Durgapura**.
- **NIVT 2** (Irrigated Timely Sown) samples from Indore, Vijapur, Junagarh, Powarkheda (CZ), Dharwad, Pune and Niphad (PZ) **and** **NIVT 6 (CZ)** from Indore, Vijapur, Junagarh, Powarkheda will be analysed at **SDAU, Vijapur**.
- **NIVT 3A** (Irrigated Late Sown) Entries from Pantnagar, Hisar, Ludhiana, Durgapura, Delhi (NWPZ) and RPCAU-Pusa, Sabour, Kanpur, Varanasi (NEPZ) **AND** **NIVT 5A (NEPZ)** (Restricted Irrigation Timely Sown) from RPCAU-Pusa, Sabour, Kanpur, Varanasi will be analysed at **GBPUA&T, Pantnagar Centre**.
- **NIVT 3B** (Irrigated Late Sown *T. Aestivum*) samples from Vijapur, Indore, Powarkheda, Junagarh (CZ) and Dharwad, Niphad, Pune (PZ) will be analysed by the quality laboratory at **ARS, Niphad**.
- **NIVT 4** (Irrigated Timely Sown *T. durum*) samples from Vijapur, Indore, Powarkheda, Junagarh (CZ) and Dharwad, Niphad, Pune (PZ) will be analysed by the quality laboratory at **ARI, Pune**.
- **NIVT 5B** (Restricted Irrigation Timely Sown, both durum and aestivum) samples from Vijapur, Indore, Powarkheda, Junagarh (CZ) and Dharwad, Niphad, Pune (PZ) will be analysed at **UAS, Dharwad**.
- **IVT (NHZ)** samples from Shimla, Almora and Malan will be analysed at ICAR-IIWBR, Karnal.

AVT and HYPT

- **AVT and HYPT samples** from all the centres mentioned in NIVTs and IVTs will be analyzed by ICAR-IIWBR, Karnal for various quality parameters including baking evaluation of IInd year entries and checks. Grain hardness index of selected centres of AVT/HYPT will be evaluated at ICAR-IARI, New Delhi.

Mandi/farmer's field samples: All centres to collect samples from Mandi/farmer's field and send to ICAR-IIWBR, Karnal in time.

Soil Fe, Zn and nitrogen analysis: Data to be provided to ICAR-IIWBR by all centres conducting trials for quality analysis after taking due care of soil sample collection and analysis.

All trials should be conducted as per the standard agronomic practices.

Quality Components and Wheat Biofortification Nursery (QCWBN)

- QCWBN samples will be analysed at ICAR-IIWBR, Karnal for grain appearance score, test weight, protein content, grain hardness index and sedimentation value, Fe and Zn content. **Hand threshed samples using cloth should be provided for Fe and Zn analysis separately.** Followings are the **13 centres** for providing samples of the nursery for quality analysis;

Ludhiana, Karnal, New Delhi and Pantnagar (**NWPZ**); Sabour, Kanpur and Varanasi (**NEPZ**); Indore, PowarKheda and Vijapur (**CZ**) and Pune, Dharwad and Niphad (**PZ**)

- The last dates for supplying the samples by respective centres were finalised as follows:

NHZ	15 th June 2023
NWPZ & NEPZ	20 th May 2023
CZ	15 th May 2023
PZ	30 th April 2023
- All the wheat grain samples, duly cleaned and properly packed in polythene bags separately, enclosed in cloth bags should be sent by registered post parcel.
- All the co-operators, who will analyze the wheat samples of various NIVTs should send the data to ICAR-IIWBR, Karnal positively by 15th July, 2023, by e-mail in the **format used in annual report.**