Guidelines for testing of NILs/MABB derived genotypes

1. The testing of NILs/MABB(MAS) derived genotypes in wheat is being planned considering the existing pattern in rice as mentioned in the "Guidelines on NILs/MAS Product Testing/ Release/ Notification under Seed Act 1966, approved during the 48th Meeting of Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Agricultural Crops, 24 Dec. 2007."
2. Instead of a separate MABB trial, the entries proposed and accepted for testing under the trial shall be included in the AVT of respective zone and condition. In case recurrent parent is not one of the checks, the same shall be included in the trial.
3. While deciding nomenclature of the test entries for MABB trial, appropriate prefix/suffix should be added to the recurrent parent's name.
4. a) The recipient genotype should be a popular variety with significant trial seed indent in previous years. Threshold level of the indent of MABB entries for inclusion in the AVT trial should be left to be decided by the Director, IIWBR.

   b) The recurrent parent needs to be selected with appropriate concurrence of the concerned breeder/organization/institution wherever applicable.
5. From the year 2019, entries with minimum two back crosses shall only be accepted for MABB trial.
6. It is to be ensured that salient traits, that define the adaptation of the recipient variety, should not get altered. The breeder has to substantiate the proposed NIL/MABB product for its conformity to parental variety with appropriate phenotypic data such as morphological and DUS data (where available) and molecular data before nomination for trial.
7. The NIL/MABB genotype should have minimum two phenotypic characters for the purpose of its identification and distinction from the recurrent parental variety. This will facilitate seed certification agency/seed law enforcement authority. Distinguishing trait between entry and the recurrent parent should be non-agronomic (visually observable in the field).
8. The DUS character profile, particularly the field characteristics of the entry along with that of the recurrent parent needs to be submitted as annexure with the proposal form year 2018 onwards.
9. Entries having same gene, same background would not be accepted in the MABB trial even in subsequent years.
10. Total number of markers used, number of polymorphic markers and percent genome recovery information has to be provided which is supported by field/evaluation data.
11. IPPSN data is must requirement for entering NIL/MABB entry into special AVT trial. All the entries and checks would be tested in PPSN.
12. The contributing centre will provide recipient (test) entry along with recurrent parent as check in AVT.
13. The NIL/MABB genotype testing has to be carried out under natural and artificial conditions (where biotic/abiotic stress resistance is targeted) and other traits following standard techniques and procedures along with the parent with standard experimental layout.

14. Regarding MABB entry for quality traits, the acceptance/rejection shall be made on the basis of expression of the quality trait as recommended by PI-Quality in consultation with the Director, IIWBR.
15. The final trait-verification would be based on the recommendation of the monitoring team. The monitoring team will involve at least one trait specialist.
16. In case more than one entry with the same gene / trait in the same recipient variety is submitted by different contributors, all the entries could be tested and the better one may be identified for release.
17. The NIL/MABB genotype thus developed may be identified, released and notified as a new variety.

6th June, 2018

(Director)

ICAR-Indian Institute of Wheat and Barley Research

Karnal

Proforma for entries submitted for special trial on NILs/MABB

1. **Entry Name** :

2. **Name of the recipient genotype with parentage and pedigree** (number of backcrosses made also be indicated) :

3. **Details about donor parent** :

4. **Trait incorporated in recipient genotype** :

5. **Distinguishing traits for EDV purpose** :

6. **Zone and production condition for which testing is desired** :

7. **List of DNA markers for background scoring (with its profile as annexure)** :

8. **Information on markers flanking to the region of the trait(s) introgressed** :

9. **IPPSN data** :

10. **PYT yield data of the entry and the check (recipient)** :

11. **DUS character profile of proposed entry and recurrent parent – submitted as annexure YES/NO**

12. **Any other information supporting the utility value of the proposed entry** :