CONCLUSION AND SUGGESTION

Conclusion

1. Coefficient of genetic variance (CGV), heritability, and genetic advance of the number of productive tillers, number of grains per panicle, and total grains were high. Therefore, selection of these characters for NPTs is effective. There were significant positive correlations between those characters with grain yield.

   NPT lines yielded higher than Ciherang (6.69 t ha⁻¹), were 116-F-IPB 3-1 (6.88 t ha⁻¹), IPB-116-F 46-1 (6.88 t ha⁻¹), IPB-117-F 14-2 (6.95 t ha⁻¹), IPB-117.F 17-4 (7.08 t ha⁻¹), and B11738-MR-1-2-Si-1-2 (6.92 t ha⁻¹). The yield potential calculated from yield components was over 14 t ha⁻¹.

2. Yield stability was analyzed using Finlay-Wilkinson method and AMMI. Several lines showed high yield stability (not different from $b_i = 1$). Some lines showed positive response to both Bogor and Pusakanagara environmental conditions ($b_i > 1$).

3. There were four lines having stable aromatic fragrance when analyzed using various testing method, namely IPB 140-F-6 (source aromatic gene from Sintanur), B11955-MR-84-1-4 (from Gilirang), and B11249-PN-9C-3-3-2-2-MR-1, B11742-RS*2-3-MR-34-1-2-1 (from local varieties).

4. Flavours of lines derived from aromatic parent from highlands of South Sulawesi were not consistent under various testing methods, and did not show aromatic character in altitude of 8 - 200 m ASL.

5. Capability of three methods was not consistent yet in identifying the aroma of the NPT lines.

6. Grain qualities of NPT lines were good and fulfil rice texture criteria in the market.
Suggestions

1. Lines with high grain yield: IPB-116-F 3-1, IPB-116-F 46-1, IPB-117-F 14-2, IPB-117-F 17-4 and MR-B11738-1-2-Si -1-2 can be involved in multilocation trials to be released as varieties.

2. Aromatic lines can be promoted for further testing toward the establishment of new aromatic varieties.

3. Lines derived from aromatic parents from highland can be tested on the plateau area to decide whether they have appropriate aromatic character as that of the parental origin.

4. The identified lines have to be tested further in the Laboratory of Aromatic Flavour at ICRR to identify and confirm the content of aroma compounds in more detail.