

ABSTRACT

YIELD TRIALS OF SOME GENOTYPES OF LOWLAND RICE(*Oryza sativa* L.) IN TWO DIFFERENT LOCATIONS

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The level of rice consumption of Indonesian people is higher than the production ability, so the government import rice to fulfil its need. One of the ways to increase national rice production is using high yielding variety. The assembling of new variety must continue to do, with aim at getting higher yielding varieties and have large adaptability. The objectives of this research were to know 1) the appearance of the growth and yield, 2) to establish character the diversity of the growth and yield, 3) to establish guess value of heritability, 4) to establish correlation between characters of the growth and yield, and 5) to establish the stability from some lowland rice genotypes are planted in various of 2 locations.

This research was done in two different locations, that is Banjarejo village, Batanghari subdistrict, East Lampung regency, and Wonorejo village, Sumberejo subdistrict, Tanggamus regency on Desember 2011-April 2012. This research was arranged by randomized complete block design with 12 treatments and 3 replications. The treatment consisted of 10 new genotypes of lowland rice, that is : 1. IPB 3S, 2. IPB 4S, 3. IPB 5R, 4. IPB 6R, 5. IPB 117-F-7-2-1, 6. IPB 117-F-7-7-1, 7. IPB 117-F-14-4-1, 8. IPB 117-F-15-4-1, 9. IPB 117-F-20-1-1, 10. IPB 117-F-80-2-1, plus 2 varieties are Ciliwung and Ciherang as control varieties.

The result of this research showed that plant height of 10 genotypes were higher than that of Ciliwung and Ciherang. The harvesting time of eight genotypes was faster than that of control varieties in West Lampung, while in Tanggamus only IPB 3S and IPB 4S genotypes were faster than control varieties. The number of tillers of rice, number productive of tillers rice, panicle length, number of grain/panicle, weight of 1000 grains, and weight of grain/panicle have large genetic variability.

All characters observed had high heritabilities, except for yield character. In West Lampung yield of IPB 6R genotype was higher than control varieties (10,2/ hectare). In Tanggamus there was no genotype which has higher yield than control varieties, but the average of yield was higher than that in West Lampung.

Key words : Growth, yield, lowland rice, different locations.