ABSTRACT

DIDI DARMADI. The Agronomical Performance of New Plant Type Rice on Conventional Planting System, System of Rice Intensification and Integrated Crop Management System. Under supervision of BAMBANG SAPTA PURWOKO as chairman, AHMAD JUNAEDI and ISWARI SARASWATI DEWI as members of the advisory committee.

IPB and BB Biogen has developed rice lines with new plant type (NPT) characters. The most appropriate cultivation technology for NPT genotypes need to be examined. The objective of the research was to determine the agromorphological response of NPT genotypes in different planting systems. The experiment was arranged in split plot design, consisted of 2 factors. The first factor (main plot) consisted of 3 planting system (conventional planting systems (CPS), system of rice intensification (SRI), integrated crop management systems (IMS)). The second factor (sub-plot) consisted genotypes (Fatmawati, Ciherang, IPB 97F-15-1-1 and A219-3-1-1). There were 12 combinations of treatments with 3 replications. The experiment showed that there was interaction between planting system and genotype in growth component (plant height, heading date, harvest time), yield component and yield. Ciherang showed to be more suitable in IMS and SRI. Fatmawati showed to be more suitable in CPS. IPB 97F-15-1-1 line showed to be more suitable in CPS and SRI. A219-3-1-1 line yielded lower than other genotypes in the 3 planting systems. In general NPT genotypes were more suitable in CPS.

Keywords: rice, new plant type, conventional planting systems, integrated crop management, system of rice intensification.