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Systemic Field Guide Line for the Rice Cultivation

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[Introduction]

Rice has been used in our major food since ancient times and has been improved according to the times. Especially for rice, the genetic characteristics of the cultivar are important, but the cultivation technique and environment also have a large influence on the rice production and quality. In particular, breeding techniques such as about anther culture and transformation have made great progress, but neglected breeding and packaging management may cause missing hills or sterile grain. Therefore, in addition to cultivating new varieties, managing rice in general field is also an important factor.

[Materials and Methods]

The CNDH line (Cheongcheong/ Nagdong double haploid line), was used as an experimental material for this research. Seeds that were not contaminated were prepared and disinfected. The disinfected seeds were subjected to darkness at 25°C for 4 days. After the darkness, the seedlings were sown, and planted at a planting distance of 30 × 15 cm. The field was cultivated according to the standard rice cultivation method of the Rural development administration. After that, the agriculture characteristics of the CNDH 120 line (culm length, panicle length, number of tillers) were investigated.

[Results and Discussion]

Cheongcheong had an average of culm length is 75.4 ± 3.6 cm, an average of panicle length is 21.0 ± 3.1 cm, and an average number of tillers per plant is 10.3 ± 1.7 . Nagdong had an average of culm length is 74.4 ± 1.8 cm, an average of panicle length is 17.6 ± 2.0 cm, and an average number of tillers per plant is 14.1 ± 3.9 . The average of culm length of CNDH 120 line was 69.1 ± 15.2 cm, the average of panicle length was 19.3 ± 2.3 cm, and the average number of tillers per plant was 11.2 ± 2.3 . The curve of the frequency distribution table of the CNDH 120 line showed a continuous change close to the normal distribution. These results imply that both of the three traits are quantitative traits, and thus can be expected to be significantly affected by environmental changes.

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