

D-D1-09

The variation of growth and yield in heavy panicle type rice, Shindongjinbyeo, according to transplanting time

Weon-Young Choi*, Hong-Kyu Park, Min-Gyu Choi, Bon-Il Ku, Nam-Hyun Back, Sang-Su Kim, and Chung-Kon Kim

Honam Agricultural Research Institute, NICS, RDA, Iksan 570-080, Korea

This experiment was carried out to investigate the difference of growth and yield of heavy panicle type rice, Shindongjinbyeo, according to transplanting time in Honam plain area. The summarized results of this study were as follows. Concerning Seedling quality at transplanting time, the plant height of transplanting time May 20 was taller than that of transplanting time June 20, and leaf number on main culm was much in transplanting time May 20. The plant height of transplanting time May 20 was taller than that of June 20, and tiller number was much in transplanting time May 20. The maximum LAI was at 90 days after transplanting in transplanting time May 20, and at 60 days after transplanting in transplanting time June 20. The heading date was Aug. 12 in transplanting time May 20, and Aug. 24 in transplanting time June 20. The panicle number per hill and grain number per panicle were much in transplanting time May 20, but the percent ripened grain was much in transplanting time June 20. Consequently, the yield of transplanting time May 20 was 579kg/10a, and that of June 20 was just 91% of that of May 20.

*Weon-Young Choi/063-840-2171/choiwy@rda.go.kr

D-D1-10

Geostatistical Analysis of Grain Yield and Grain Moisture Contents in Rice Fields

Ji-hoon Chung, Ho-jin Lee, Chang-Hwan Yi, Su-jin Ahn and Dang Hoang Ha

Department of Plant Science, College of Agriculture and Life Science, Seoul National University, Seoul, Korea.

Yield monitoring system is one of the precision agriculture technique and a developing technique that can dramatically modify the current agricultural production system. We could know yield data at specific place and make yield map by yield monitoring system.

We researched spatial variability of yield by collected yield data for each sampling grid. And compare yield data before and after grain moisture compensation, and examined the relation between grain moisture contents and yield. Spatial dependence exists even if sampling size is different. Optimum sampling size changed in proportion to field size, however, judged that is suitable about 10m. Coefficient of variance of yield was appear high in direct seeding and low in transplanting. Change of yield data before and after moisture compensation is high. Highly spatial dependence was appeared in rice grain yield. And spatial variation and dependence of grain moisture contents was not high. And, effect that grain moisture content gets in spatial dependence of yield is not big. We need more researches about yield and grain moisture contents for yield monitoring system.

*Ji-hoon Chung / +82-2-880-4556 / hoonv012@snu.ac.kr