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## **Analysis of Quality- and Yield- Related Traits of Glutinous Rice Cultivar according to Cultivation Times in Honam Plain**

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### **[Introduction]**

In order to increase the utility of glutinous rice cultivar breeding in Korea, it is necessary to study the characteristics related to starch and pasting properties and agricultural characteristics related to yield. In addition, due to the unique characteristics of glutinous rice cultivar, there is a significant difference in various traits according to cultivation times, and systematic studies on this are continuously required.

### **[Materials and Methods]**

Plant materials were transplanted into the rice field (35°50'26.8''N 127°02'42.8''E) of the National Institute of Crop Science, Rural Development Administration, located in honam plain. According to cultivation times, characteristics related to yield, panicle, pasting properties, and grain quality were investigated. In addition, the investigated trait characteristics were analyzed using R to confirm the interaction between various characteristics of cultivars according to cultivation times and the effect on the related traits.

### **[Results and Discussion]**

The heading date increased in the order of early-, ordinary-, and late-cultivation. According to the cultivation times, the cultivar with the highest yield is 'Boramchal' in early planting, 'Baegseolchal' in ordinary planting, and 'Sinseolchal' in late planting. In addition, as the cultivation times were delayed, the ratio of perfect grains increased, which improved the appearance quality of rice. As for pasting properties, as cultivation times were delayed, pasting temperature, peak viscosity, trough viscosity, final viscosity, and break down decreased, and setback increased. Therefore, in the case of cultivating glutinous rice, it is suggested that an appropriate cultivar can be selected according to each cultivation time to improve the appearance quality and taste of rice while improving the yield.

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