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## Effect of different seedling ages and transplanting times on growth and yield of Indica x Japonica rice for noodle processing

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### Abstract

The effect of different seedling ages and transplanting times on the growth and yield of Indica x Japonica rice for noodle processing was evaluated to develop a high yielding cultivation technology for increasing the competition against the imported foreign rice. Four seedling ages (10-, 20-, 30- and 33-day old) of two Indica x Japonica rice cultivars (cvs. Saemimyeon and Palbangmi) and three transplanting dates (May 20, May 30 and June 9) were used in the study. Our results showed that the growth and rice yield of the two cultivars were significantly affected by the different seedling ages and transplanting times. Dry matter production at the panicle heading of the two rice cultivars were generally higher in the 30-day old seedling than the other seedling age treatments and then gradually decreased as the transplanting time was delayed from May 20 to June 9. Similar high panicle number per square meter were recorded at the 30-day old seedling between May 20–May 30 transplanting times. In contrast, other yield parameters that includes spikelet number per panicle, 1,000-brown rice weight, and ripened grain ratio (except for the June 9 transplanting time of Palbangmi) were not significantly affected. The milled rice yield of Saemimyeon was higher than that of the Palbangmi regardless of seedling ages and it was also the highest at the 30-day old seedling with four seedling ages. The milled rice yield of Saemimyeon was only slightly decreased as the transplanting time was delayed from the May 20 to June 9 but Palbangmi had a significantly lower milled rice yield at June 9 transplanting due to the low ripened grain ratio. The result indicates that the most suitable seedling age for the cultivars tested was at 30-day old seedling for noodle processing rice and recommended transplanting times were between May 20 and May 30 for the high rice yield in the Yeongnam plain area.

Keywords: indica x japonica, milled rice yield, rice, seedling age, transplanting time

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