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Field Evaluation of Transgenic Japonica Rice "*Milyang 204*" with Herbicide Resistance Gene (*bar*)

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Objectives

This study was conducted to investigate the major characteristics of genetically modified rice "*Milyang 204*" originated from *Dongjinbyeo* compared to a non-transgenic rice variety *Dongjinbyeo*.

Materials and Methods

1. Material: *Milyang 204*, *Dongjinbyeo*, *Junambyeo*
2. Methods: Seeding (April 30), Transplanting (May 30), Planting distance(30×15 cm),
Fertilization rate(N-P₂O₅-K₂O=11-4.5-5.7 kg/10a).
3. Investigation: Agronomic Characters (On the basis of UPOV and NSMO).

Results and Discussion

This study was conducted to investigate the major characteristics of genetically modified rice of "*Milyang 204*" originated from *Dongjinbyeo* compared to a non-transgenic rice varieties *Dongjinbyeo* and *Junambyeo*. Basta resistant transgenic rice lines carrying *bar* gene produced by the Yeongnam Agricultural Research Institute were evaluated for their agronomic characters. The transgenic Japonica rice of "*Milyang 204*" showed inferior phenotypic traits compared to a non-transgenic rice variety *Dongjinbyeo* and *Junambyeo*. On the basis of UPOV (Union Internationale Pour la Protection des Obtentions Vegetables) and NSMO(National Seed Management Office) the transgenic "*Milyang 204*" showed difference in some traits out of some agronomic traits, such as leaf color, angle of flag leaf, number of spikelets, culm length, white core and white belly compared to the non-transgenic varieties rice.