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Development of an Early Maturing Variety of Japonica Rice, Taichung 190¹

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ABSTRACT

In order to develop some early maturing varieties to meet the requirement of the multiple cropping system in Taiwan, this station has conducted a series of breeding program to improve the unfavorable characteristics of the early maturing varieties of rice, Taichung 190 was developed by crossing Taichung tsao yuh 229 (♂) (an early maturing variety with blast resistance and good eating quality) with Tainung 67 (♀) (a medium maturing variety with high yield, lodging resistance and wide adaptability). It was named and released to the farmerson June 23, 1986.

This variety has been significantly improved in plant type. Besides it has the favorable characters of early maturity, short stem, nitrogen tolerance, blast resistance and good palatability. This variety showed significantly higher yield than the other early maturing varieties of rice in Taiwan. It is suitable for cultivation in the highly multiple cropping area in central Taiwan. Three years of regional experiment, the average grain yield of the variety was 5642 kg/ha in the first crop and 5114 kg/ha in the second crop, increased 11.8% and 10.6% as compared with the check variety Toyonishiki, respectively. The growth period of the variety was 117 days in the first crop, 1 day later than Toyonishiki, and 82 days in the second crop, the same as Toyonishiki. During the three years experiment the variety showed medium resistance to blast. It has better palatability than Tainung 67 and Toyonishiki. Besides it has short stem and was resistant to lodging. Therefore, this variety is suitable for cultivation in the highly multiple cropping area as well as in the soils that easily devastated by the blast in the first crop. However, the variety also has some demerity of slight white belly, nondormancy, and susceptible to bacterial leaf blight, yellow dwarfing, and brown planthopper.

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