

Development of the New Rice Variety Hualien 19¹

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Summary

A new rice variety Hualien 19 was developed and released in 2002 by Hualien DARES. This variety was derived by a pedigree selection from a cross between Taiken Yi 3984 and Taiken 6 made by Chia-Yi Agricultural Experiment Station at the 1st crop in 1992. The line with the breeding name Taikeng yu 31086 was sent to the Hualien District Agricultural Research and Extension Station at the 2nd Crop in 1995. Hualien 19 is a late-maturing variety. Its grains are large and full. Seed weight reaches 26.3 grams per 1,000 grains. Grain appearance is pretty good and eating quality is excellent and comparable to that of the recommended quality variety TK 9. The average yields of the first crop is 6,396 kg/ha in the regional test and 4,493 kg/ha in the second crop. Except the lower yield in Pintong , Taitong and Ilan in the first crop and in Pingtung in the second crop, the variety is suitable to plant as annual crop and two crops in Taiwan. And the yield respond to the environment are not sensitive according to yield stability analysis. This variety possesses the resistance to the leaf and grain blast diseases, has strong culms and anti-lodging characteristics; and is suitable to be harvested by machine. The variety is also resistant to lower temperature in both the first and second crop. And the rate of the sprouting grain is lower in the first crop and it should benefit the yield and quality in the indiscrete raining season during maturation.

(Key word : Rice , *Oryza sativa* L. , Breeding , Variety)

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