

Scientific Notes

Field Resistance of Rice Cultivars to Physiological Disease, Sheath Blight and Yellow Dwarf

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Summary

Twelve rice cultivars were used for comparative studies on the field resistance to physiological disease, sheath blight and yellow dwarf under the natural infection conditions at Chiunglin, Hsinchu.

Varietal differences in physiological disease and sheath blight as well as yellow dwarf were significant during the growing period. Physiological disease was noted at early tillering stage, the midribs of the leaves turned yellow, and reddish-brown spots appeared near the tips of the older leaves and spread over the leaves (Fig.1). Disease severity varied from 1.55% in TaiKeng 2 to 6.71% in Taikeng 6.

Disease assessments for sheath blight and yellow dwarf were made at ripening stage. Degree of severity for sheath blight varied from 1.69% in Taikeng 8 to 7.63% in Kaohsiung Taikeng 142. Disease incidence for yellow dwarf varied from no infection in Taikeng 1, Taikeng 2 and Kaohsiung 142 to 1.13% in Tainung 67.

Significant difference in yield was observed among cultivars; the highest yield was obtained from Taikeng 4 with 6,806kg/ha and the lowest yield was noted in Taikeng 3 with 3640kg/ha. However, the difference in yield could not be attributed to the disease occurrence due to low infections.