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Agronomic traits of advanced backcross lines having bacterial blight resistant gene from a cross between japonica and indica

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Abstract

This study was carried out to develop rice variety integrated with rice bacterial blight resistance gene and to know the information of major agronomic traits of developed variety. Advanced backcross Lines 21 having *Xa3* and *Xa21* gene cross from japonica cultivar Hwanggeumnuri and indica variety IRBB21. Days after seeding and culm length of ABLs21 were 108 days (Aug. 16) and 76 cm, respectively. Ripened grain rates was 87.4 %, which was similar to the parents. 1000 grain weight of brown rice of ABLs21 was 21.4g, which was lower than the donor parent. Milled rice yield of ABLs21 was 532 kg/10a, which was smaller than recurrent parent and higher than the donor parent. Grain length/width ratio of brown rice was form of japonica with short-ellipse and glossiness of cooked rice has japonica trait. Head rice rate showed a large difference compare to the donor parent and similar to the recurrent parent. ABLs21 would be useful genetic resources for resistance breeding program against bacterial blight..

Keywords: rice, bacterial blight, resistant gene, backcrossing

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