RESEARCH PYRAMIDING GENES TOLERANCE OF SALT, LOW AMYLOSE AND HIGHT YIELD ON BACKCROSSING RICE LINES

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Summary

Screening 30 lines BC2 and 50 BC_3F_3 lines from populations of OM10252/OM4900 //OM10252 have developed in Hight agriculture technology research Insitute delta (HATRI) and evaluated level of responding salt tolerance with three various concentration of salt as EC=0 dS/m, 8 dS/m, 15 dS/m on three stages: seedling stage; vegetative stage; flowering stage and then continued to evaluate trait tolerant to drought of these lines in order to may help and evaluate removing gradually lines without salt tolerance and drought for backcrossing rice lines. Response to salt of rice varieties was significantly different. However, for growth and development of rice lines show: the higher salt concentration is, the lower survival day is, percentage reduced gradually with concentration of EC= 15ds/m. After evaluated tolerance to salt and low amylose of rice lines also were identified genetic factor via molecular marker again. Four molecular marker of RM223, RM3252-S1-1, HATRI2 and Wx was evaluated associated to salt and amylose genes in order also evaluated and analysis. Result were recorded that there were association between genotype and phenotype. Lines from combination of OM10252/OM4900 //OM10252 chose 4 lines from combination of OM10252/OM4900 //OM10252 both sality, high yield and low amylose. Lines BC3F3-48 have the high yield. These lines can send trial on saline soil limited salt concentration from 4-5‰ to evaluate yield and yield components for next study program.

Keywords: *Amylose, salt, seedling stage, genotypic, phenotypic, yield.*