CROSSING AND SELECTION LODGING RESISTANCE FOR STICKY RICE LINES (*Oryza sativa var. indica*)

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**Summary**

Sticky rice is a special rice in Mekong delta, but lodging reduced significantly yield and grain quality. To restrict lodging through increase the stem stiffness for sticky rice, some single hybrid combinations were performed between sticky rice (*O. sativa var. indica*) with ‘Nhat’ (*O. sativa var. japonica*), which was reported lodging resistance as the donor parent, and the combination of CK92 x ‘Nhat’ had potentiality for selection. Progenies were selected from generation F1 to F4 based on the evaluation of length, diameter and breaking strength of four top internodes. From F4 generation, two lines were selected. The high plant was 101-106 cm; the average diameter of first internode was 2.6-2.7, the second 3.8-4.2, the third 5.2-5.3, and the fourth 6.3 mm; and the breaking strength of the first internode was 2.8-3.0, the second 6.3-6.5, the third 9.2-10.2, and the fourth 14.2-14.5 N/cm$^2$. They had a larger diameter and breaking strength than their parent ones. Moreover, there was a significant correlation between internode diameter and breaking strength in generation F2 to F4. For qualities, these lines had amylose content approximately 2.9%, protein from 10.0 to 10.5%, granular medium.

**Keywords:** Breaking strength, internode diameter, internode length, Japanese rice, lodging resistance, sticky rice.