

**Sensory Analysis as a Tool to Support Rice Breeding Research –  
A Comparison between Hybrid Rice and Conventional Commercial Rice**

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Rice is an important staple food for Brazilian population. To provide non-glutinous cooked rice, a preference among most Brazilians, is a major concern for the rice industry and, consequently, for rice breeding programs. Hybrid rice, the result of two genetically distinct rice parents crossed, have increased yield and more vigour than conventional rice, potentially attracting both producers and industry. However advantageous, the hybrid competes for the same market as conventional rice, and therefore whether or not the consumer will distinguish hybrid from conventional in terms of cooking quality needs to be evaluated. This study aims to assess sensory differences between a hybrid variety sample and conventional commercial rice samples by the Difference from Control Method. This method provides information on the size of the difference between a control and other samples. 17 out of 21 pre-screened and trained subjects evaluated differences in appearance (superficial texture), overall flavour and texture of the samples, using a 7-point scale, varying from “no difference at all” (0) to “extremely different” (7). The samples were composed by hybrid rice (control and blind control), commercial rice (mix of varieties) and “special selection” commercial rice (one single variety). Data was analysed by Analysis of Variance and Dunnett’s test. The results showed that significant difference ( $p < 0.05$ ) was only found in the appearance and flavour attributes between the hybrid and the special selection sample. As the hybrid rice competes primarily with conventional commercial grains, which are generally a mix of varieties, the results suggest that the hybrid may be mixed with non-hybrid grains because consumers should not be able to perceive a significant difference when consuming them (5% significance level). Further research is required if this variety is to be targeted to the selected grain market.

**Key words:** rice, hybrid, sensory analysis, market.