

**EVALUATION AND COMPARISON OF COOKING AND EATING
CHARACTERISTICS OF SOME SELECTED RICE VARIETIES IN JAFFNA
PENINSULA,**

Nirajini B¹ and Vasantharuba, S¹

¹Department of Agricultural Chemistry, Faculty of Agriculture, University of Jaffna, Jaffna, Sri Lanka

ABSTRACT

The study was undertaken to evaluate and compare the cooking and eating characteristics of twelve rice varieties selected from different areas of Jaffna peninsula which include both traditional and improved varieties. It is also intended to identify useful correlation among different grain quality characteristics. Cooking and eating characteristics like minimum cooking time, water uptake ratio, gruel solid loss, elongation ratio, cooked length-breadth ratio, gelatinization temperature and gel consistency were measured. Length and breadth of rice grains after cooking was measured by digital image processing system. The minimum cooking time of selected rice varieties varied from 15 minutes ('Basmati') to 35 minutes. Cooking time was positively correlated with water uptake and gruel solid loss but cooked length breadth ratio was correlated negatively. Water uptake was highest for 'Anilvarian'(4.129g) and lowest value was observed for 'Basmati' (1.977g). Highest and lowest gruel sold loss was observed in 'Anilvarian' (3.65%) and 'Basmati' (1.97%) respectively. Elongation ratio of tested varieties varied from 1.038 ('Basmati') to 1.282 ('Bg 358'). Cooked length breadth ratio was highest for 'Basmati' (2.726) and lowest for 'Bg 358' (1.562). Highest and lowest alkali spreading value was found in varieties such as 'Basmati', 'At 353' and 'H4' (55⁰C to 69⁰C) and 'Bg358' (>74⁰C) respectively.

Keywords: Cooking and eating characteristics, Rice varieties, Jaffna peninsula