

### **Abstract**

The quality of rice depends in great measures on its variety and the length of time it is kept in storage. This investigation was carried out to compare the quality parameters of five rice varieties in a milled form at market level. The most popular five cultivars of Myanmar rice were collected from local retail market. Six month-aged milled rice samples were with moisture contents in a range of 10.62 to 12.72%. Three aromatic rice cultivars (Paw-san-hmwe, Taung-pyan-hmwe and Nga-kywe) were belonged to short grain type while the other two non-aromatic rice cultivars (Manaw-thuka and Ayar-min) were included in medium grain class. The physico-chemical characteristics, cooking and eating qualities were measured and wide varietal differences were observed. There was little variation in moisture content, amylose content and alkali spreading value, but there were marked differences in grain elongation ratio, gel consistency, activity of  $\alpha$ -amylase and lipase enzyme and the concentration of rice major aromatic volatile compound, 2-acetyl-1-pyrroline (AcPy). One variety (Paw-san-hmwe) had a higher content of AcPy than the others while that compound was not detected in any non-aromatic rice. On the whole, the quality of Paw-san-hmwe was found to be superior to the other four varieties of rice.