Abstract

Pito wort preparation and product quality variability have been identified as major problems to be resolved to ensure the industrialization of its processing. This work sought to evaluate different mash separation systems in Pito wort preparation and their effect on wort quality. Sorghum was malted, milled and mashed. A single factor experimental design was employed to compare the performance of three wort filtration systems, namely Spindle screw press, Zapap Lauter tun and Basket filter. The responses measured included Filtration rate, Extract yield, Brewhouse yield (BHY) and Cake moisture. Worts from the separation systems were also evaluated for their quality in terms of strength (°Plato), pH, Total acidity, colour, turbidity, attenuation limit, FAN, total polyphenols and reducing sugars. Results showed that the type of mash separation system used significantly affected the filtration variables as well as wort quality. Spindle screw press had highest flux rate, Extract yield, BHY and the lowest cake moisture. Adaption of the spindle press by traditional pito processors will help improve the process and quality of the product.

Key words: Pito, wort, separation system, filtration, Spindle Screw press, Zapap Lauter tun, Basket filter.