

Effect of soaking process on physical properties of mature pepper berries (*Piper nigrum* L.)

ABSTRACT

This study was carried out to determine the effect of the soaking process on the physical properties of the mature pepper berries. The soaking process was conducted by immersing pepper berries in water. The results showed the dimensions of the pepper berries before soaking was 5.24 mm (minor axis), 5.57 mm (medium axis) and 5.61 mm (major axis). The weight of pepper berries increased from day 1 (13.58%) until day 3 (16.92%) and decreased after day 4 (0.77%) until day 7 of soaking (13.08%). The water uptake ratio of soaked pepper berries increased from 1.14% (day 1) until 1.17% (day 3) and then decreased from 1.01% (day 4) until 0.87% (day 7). The fracture force required to fracture the pericarp was decreased starting from 67.21 N (day 1) decreased until 21.40 N (day 7). The colour of mature pepper berries was changed into black-brown colour (L= 34.16, a= 1.38, b= 1.40).

Keyword: Soaking process; Physical properties; Mature; Pepper berries