Abstract

Several physical and nutritional properties of oleaster fruits (Elaeagnus angustifolia L.) grown in Turkey were investigated.

These properties are necessary for the design of equipments for harvesting, processing and transportation, sorting, separating

and packing. The average fruit length, width, thickness, the geometric mean diameter, sphericity index, fruit mass, thousand of fruit mass and volume of fruit of oleaster fruits were determined as 25.39 mm, 18.22 mm, 18.27 mm, 20.28 mm, 80.26%, 2.09 g, 2101.4 g and 4.73 cm$^3$, respectively. The bulk density, fruit density and porosity were 277 kg m$^{-3}$, 462 kg m$^{-3}$ and 35.03%, respectively. While the static friction coefficient on galvanized iron sheet, iron sheet, thin plate, wood and rubber were 0.511, 0.438, 0.292, 0.511 and 0.729, the dynamic friction coefficient on the same surfaces were 0.438, 0.365, 0.219, 0.438 and 0.584, respectively. The moisture content, titrable acidity, ascorbic acid, skin firmness and terminal velocity were 16.91 %, 4.99 %, 4.65 mg 100 g fresh weight$^{-1}$, 6.65 N mm$^{-2}$ and 8.26 m s$^{-1}$, respectively. Protein, K, Ca, P, Mg and N amount were 12.33, 1.10, 0.07, 0.06, 0.05 and 1.97 %, respectively.

Key Words: Oleaster (Elaeagnus angustifolia L.), Physical and Nutritional properties.