

Persian Pistachio Nut (*Pistacia vera* L.) Dehydration in Natural and Industrial Conditions

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Abstract : In this study, the effect of various drying methods (sun drying, shade drying and industrial drying) on final moisture content, shell splitting degree, shrinkage and color change were studied. Sun drying resulted higher degree of pistachio nuts shell splitting on pistachio nuts relative other drying methods. The ANOVA results showed that the different drying methods did not significantly effects on color change of dried pistachio nut. The results illustrated that pistachio nut dried by industrial drying had the lowest moisture content. After the end of drying process, initially, the experimental drying data were fitted with five famous drying models namely Newton, Page, Silva et al., Peleg and Henderson and Pabis. The results indicated that Peleg and Page models gave better results compared with other models to monitor the moisture ratio's pistachio nut in industrial drying and open sun (or shade drying) methods, respectively.

Keywords : industrial drying, pistachio, quality properties, traditional drying

Conference Title : ICGHOST 2015 : International Conference on Ghost Conference

Conference Location : ghost city, Other

Conference Dates : December 12-13, 2020