

المخلص الإنجليزي للبحث رقم ٤

عنوان البحث باللغة الإنجليزية :

Effects of pretreatments and drying methods on physico-chemical, sensory properties, mineral contents and bioactive compounds of garlic powders.

Authors:

Ahmed Rabie Mohamed Maray¹ & Safia Mahmoud Abdel-Mageed Ahmed²

¹Food Science and Technology Department, Faculty of Agriculture, Fayoum Univirsity, Fayoum 63514, Egypt.

² Botany Department, Faculty of Agriculture, Fayoum Univirsity, Fayoum 63514, Egypt.

ABSTRACT:

This study was performed to evaluate the effects of pretreatments and drying methods on the quality attributes and bioactivities of dried garlic powders (DGP). Fresh garlic was soaked, steamed, soaked and steamed together or left untreated before being the hot air drying or sun drying. Results indicated that there were significant differences ($P<0.05$) between the chemical composition constituents and physico-chemical properties of garlic powder samples except lipid component and browning index, respectively. Also data of the statistical analysis performed on the sensory evaluation values of garlic powders showed that there were a little significant difference for the most evaluation determinants and overall acceptability. The results revealed that the sun dried garlic powders had higher values for the most parameters regarding chemical composition, physico-chemical, sensory properties. Data showed that the most mineral contents of sun dried garlic powders were least affected compared to the oven dried garlic powders. For the bioactive compounds, e.g. total polyphenols and antioxidants DPPH had higher levels with the sun dried garlic powders.