

## Physical Parameters Influencing the Yield of Nigella Sativa Oil Extracted by Hydraulic Pressing

**Authors :** Hadjadj Naima, K. Mahdi, D. Belhachat, F. S. Ait Chaouche, A. Ferradji

**Abstract :** The Nigella Sativa oil yield extracted by hydraulic pressing is influenced by the pressure temperature and size particles. The optimization of oil extraction is investigated. The rate of extraction of the whole seeds is very weak, a crushing of seeds is necessary to facilitate the extraction. This rate augments with the rise of the temperature and the pressure, and decrease of size particles. The best output (66%) is obtained for a granulometry lower than 1mm, a temperature of 50°C and a pressure of 120 bars.

**Keywords :** oil, Nigella sativa, extraction, optimization, temperature, pressure

**Conference Title :** ICABBBE 2015 : International Conference on Agricultural, Biotechnology, Biological and Biosystems Engineering

**Conference Location :** Istanbul, Türkiye

**Conference Dates :** May 21-22, 2015