

**FATTY ACID COMPOSITION AND PHYSICO-CHEMICAL PROPERTIES
OF DATE SEEDS OILS OF THREE FRUITS (*Phoenix dactylifera* L.)
PRODUCED IN OUARGLA REGION**

Mustapha BOUKOUADA¹, Zineb GHIABA¹, Mokhtar SAIDI¹, Mohamed
YOUSFI², Mohamed lakhdar BELFAR¹

¹ Laboratoire de Valorisation et Promotion des Ressources Sahariennes, Université de Ouargla,
Algeria

² Laboratoire des Sciences Fondamentales, Université Amar Telidji de Laghouat,
Algeria. moustapha0101@yahoo.com

Algeria considered as one of the major date producing countries. The production reaches up 468,000 tons annually, most of it consumed locally. The seeds or date stones which represent a relatively high yield are considered in most cases as waste and hence the present work was planned with the aim of making use to them and to study the possible economic and medicinal potentialities of this crop in Algeria. Three different date palm seeds (*Phoenix dactylifera* L.) cultivars, Deglet-Nour, Ghars and Tamdjouhert, originating from south eastern of Algeria (Ouargla region), were analyzed. The oil contents of these seeds range 5.05 – 6.08%. All the seed oil studied were liquid at room temperature and the characteristics and constituents of the seed oils were determined, including physico-chemical properties, specific gravity, refractive index, saponification value, acid value and Iodine value. The analysis by gas chromatography of fatty acid methyl esters, shows that oils contain mainly fatty acids oleic, linoleic, palmitic and stearic, less fatty acid in the tail as fatty acid capric, lauric and myristic have also been detected. The amount of sterols has been determined by a simple spectrophotometric method.

Keywords: Date Seed, *Phoenix dactylifera* L., fatty acid composition, physico-chemical properties, Sterols.