

BOTANICAL AND PHYSICOCHEMICAL CHARACTERIZATION OF ALMOND POPULATION VARIETAL IN EASTERN MOROCCO

^aMelhaoui R, ^aHoumy N, ^aMihamou A., ^bSindic M., ^aSerghini Caid, H. ^aElamrani A.

^aLaboratoire de Biologie des plantes et des micro-organismes, Faculté des Sciences, Université Mohamed Ier, Oujda; Maroc.

^bLaboratoire Qualité et Sécurité des Produits Alimentaires, Gembloux Agro-Bio Tech, Université de Liège; Belgique.

Email : reda_melhaoui@hotmail.fr

Abstract: Cooperatives play an important role in socio-economic development. In this regard, the Eastern Morocco adopts this strategy via the PROFAO* Project as a way of promoting local development, which guarantees sustainable jobs. This project is based on planting 6000 ha of new almond orchards and creating three cooperatives to value post-harvest Almond products.

Currently the Eastern Moroccan regions could benefit of the new project PRD** which will include local Almond varieties characterization to safeguard its biodiversity and the valorization of its products.

This study concerns two main points 1) Botanical characterization of local varieties named "almond Beldi (Be)" based on the flowering period and determination of the color of the flowers 2) Physicochemical characterization of some parameters such as the oil yield, acid and peroxide values. This botanical study shows the result of the early flowering variety (Be) (beginning in February). The color results of 100 flowers analyzed by chromametre , shows two different color categories. The first is very light pink to white ($L^*=81,58$; $a^*=7.43$; $b^*=8.06$) and the second is a dark pink ($L^*=71,64$; $a^*= 18,34$; $b^*= 4,97$), with a difference in color between the two categories $\Delta E=15.07$. This almond variety shows an oil yield of 50%, a low acidity value 0,039 (% of Linoleic acid) and a peroxide value of 16.39 (meq/o²/Kg).

*PROFAO: Project for the Development of the Almond Branch in the Oriental Region

**PRD : research and development projects.

Key words: Almond, local varieties, flowering period, oil yield, acidity values,