



20° CONGRESSO
DELLA SOCIETÀ ITALIANA PER LO
STUDIO DELLE SOSTANZE GRASSE

Qualità e sicurezza degli oli d'oliva:
conoscenze attuali e prospettive future

*Olive oil quality and safety:
update and future outlook*

Roma, 7-8 giugno 2007

Relazioni e Poster
Reports and Posters



Olive oil from the cultivars of Trás-os-Montes region (Northeast of Portugal): quality and chemical composition

Pereira, J.A.¹; Sousa, A.¹; Casal, S.²; Bento, A.¹; Oliveira, B.²

¹ CIMO/Escola Superior Agrária, Instituto Politécnico de Bragança. Apt. 1172. 5301-855 Bragança. Portugal. jpereira@ipb.pt

² REQUIMTE, Serviço de Bromatologia, CEQUP, Faculdade de Farmácia, Univ. Porto, Rua Aníbal Cunha, 164, 4099-030 Porto, Portugal

Trás-os-Montes region (Northeast of Portugal) is the second Portuguese region in area and the first in olive oil production. In the last years, the olive oil sector showed a great dynamics and oils with Protected Designation of Origin (PDO) and varietal olive oils are introduced in the market. "Azeite de Trás-os-Montes" PDO is a result of a mixture of different olive cultivars mainly Cvs. Cobrançosa, Madural and Verdeal Transmontana, being allowed the presence of other cultivars in few amounts. In the present work we intend to contribute for a better knowledge of the most representative cultivars of *Olea europaea* L grown in Trás-os-Montes namely Cobrançosa (24 samples), Verdeal Transmontana (15), Madural (15), Negrinha de Freixo (14), Santulhana (10), Cordovil (10), Borrenta (2), Bical (1), Cordovesa (1), Lentisca (1) and Madural Negra (1), concerning the moisture and fat contents in olives, some qualitative parameters (acidity, absorbance coefficients, and peroxide value) and fatty acids, triacylglycerols and tocopherols profiles in the oils. Fat contents ranged from 47.2% to 70.3% of dry matter. Quality parameters were inside of legal limits defined for "Azeite de Trás-os-Montes" PDO, and monounsaturated fatty acids were predominant, particularly oleic acid (68.6 – 82.6%). Among the triacylglycerols identified, 1,2,3-trioleoylglycerol (OOO) was the major (38.1 – 64.0%). The four isomers of tocopherol (α -, β -, γ - and δ - tocopherol) were identified in the samples. These data can contribute for a better knowledge of the regional olive oil and will be useful in the guarantee of olive oil authenticity produced in the region.

Acknowledgment: Work partially financed by the INTERREG IIIA Project PIREFI