

**Title** Effect of the harvest time on kernel quality of several almond varieties (*Prunus dulcis* (Mill.) D.A. Webb)

**Author** A. Piscopo, F.V. Romeo, B. Petrovicova and M. Poiana

**Citation** Scientia Horticulturae, Volume 125, Issue 1, 31 May 2010, Pages 41-46

**Keywords** Almond; Cluster analysis; Drying; Fatty acids; Minerals; Lipids

#### **Abstract**

In the present work the effects of the harvest time on variation of the quality parameters of several almond cultivars were evaluated. Studied cultivars came originally from three different countries: Italy (Supernova, Falsa Barese, Genco and Tuono); France (Ferragnes, Lauranne and Stelliette); Spain (Glorieta and Mas Bovera). The samples were collected in a field of the South of Italy during two harvest periods: at the beginning and at the end of August. Particularly, the highest free acidity content (increasing about the 24%) was observed during the ripening of Falsa Barese variety. Also the lipid content was increased and the Genco variety was that of the highest amount in both samplings. The fatty acids amount from the Mas Bovera cv almond kernels, particularly at the late harvest time, showed the best results (oleic/linoleic acids of 7.36 and high MUFAs/PUFAs value). The cluster analysis shows that this cultivar differs from the others in the oil composition. If on the first sampling some differences were observed, in the late harvest time all varieties combined in the same cluster with the exception of Mas Bovera and Ferragnes, provided of different acidic distributions. The analysis of minerals and trace element, K, Mg and Ca proved the major minerals present in all almond seeds.