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Czech J. Food Sci.

**Pavloušek P., Kumšta
M.:**

Profiling of primary metabolites in grapes of interspecific grapevine varieties: sugars and organic acids

Czech J. Food Sci., 29 (2011): 361-372

The quality of grapes is determined above all by the contents of the primary and secondary metabolites. The primary metabolites involve sugars and organic acids, and just these compounds are dealt with in this study. Its objective was to analyse and critically evaluate the primary metabolites in new interspecific varieties and, based on a comparison with European varieties of grapevine (*Vitis vinifera* L.), to find out the similarities and also possible differences between them. The study evaluates and compares 4 conventional varieties of *Vitis vinifera* with 11 new interspecific cultivars. The contents and compositions of the individual sugars and acids were estimated by means of the HPLC method.

Most of these varieties belong to the group with either medium or low content of malic acid, i.e. with a medium to high ϕ ratio. This corroborates the similarity of interspecific varieties to those of *V. vinifera*. The cluster analysis identified the existence of two interesting groups of varieties: the first one involved the varieties Riesling, Nativa, Marlen, and Kofranka while the other group consisted of varieties Blaufränkisch, Blauer Portugieser, and Laurot. This observation