

THE MOST VALUABLE GRAPEVINE VARIETIES FOR WINE ESTABLISHED BY ANALYTICAL HIERARCHICAL PROCESS FOR A SUSTAINABLE VITICULTURE IN DANUBE TERRACES VITICULTURAL REGION

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Abstract

In order to promote a durable viticulture, an analytical hierarchical process (AHP) have been done to identify the most valuable grapevine varieties for wine in the Danube Terraces Viticultural Region. The grapevine varieties taken into the study are dedicated to white wine (Crâmpoșie, Riesling of Rhin, Fetească albă), red and rosé wine (Negru of Drăgășani, Pinot noir, Cabernet franc, Merlot, Sangioveze). The AHP exercise was based on pairwise comparisons of 11 subjective criteria (including knowledge for recognition, market potential, “celebrity” of the product on the market, biotic and abiotic threats), and expert’s opinion. According to the results, the grapevine varieties with the highest potential for this region were selected as being Fetească albă, Merlot and Pinot Noir, also zoned for this wine region. Although the wine production of the area consists mostly of table wines, among which the dominant ones are those for white wines, two varieties for red wines and one for white wine were selected. The analyses were obtained by using the Expert Choice Desktop software (v. 11.5.1683). Taken into consideration the pedoclimatic characteristics of the region and the climatic changes situation, the behaviour of the three ranked grapevine varieties to different stress factors have been discussed. In the Danube Terraces conditions, the drought sensitivity of some grapevine varieties requires the reduction of water stress by irrigation. In areas with heavily eroded land on the slopes or fronts of terraces, it is recommended to use some rootstocks (Kobber 5BB, 41-B, SO4-4) to avoid the appearance of ferro-calcium chlorosis produced by the excessive presence of carbonates.

Key words: AHP, pairwise comparisons, durable viticulture, cultivars, Region VII
