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THE ADAPTATION OF GRAPEVINE ASSORTMENT TO CLIMATIC CHANGE CONDITIONS

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Climate change exerts constant pressure on agricultural systems, and viticulture is proving to be one of the most exposed sectors. The adaptability of vines to climatic fluctuations is closely correlated with the specific characteristics of the cultivated genotypes and the extent to which they can respond optimally to biotic and abiotic stress factors. Temperature changes, irregular rainfall distribution and increased frequency of extreme events require constant reassessment of genetic selection and vineyard management strategies. In the current context, grapevine improvement is based on the identification of genotypes capable of overcoming the barriers imposed by climate change through a complex adaptability that includes resistance to low temperatures, tolerance to drought and heat and, last but not least, resistance to diseases and pests (including phylloxera). Of course, all these requirements for a particular grapevine variety need to be combined with the stability, quality and quantity of production obtained. In order to meet these requirements, the trend is increasingly clear for diversifying the grape variety used in establishing plantations and focusing on interspecific rhizogenic hybrids Vitis Vinifera x Muscadinia Rotundifolia, including apyrene varieties. After a long process of breeding and testing interspecific hybrids, were created rhizogenic interspecifical varieties for use in ecological viticulture. These varieties can ensure a stable and rich harvest with minimal phytosanitarial input. As a result of crossing the genotypes of *V. vinifera* L. (2n=38) x *M. rotundifolia* Michx. (2n=40) were obtained and homologated interspecific rhizogenic grapevine genotypes with table grapes: “Nistreană”, “Algumax”, “Malena”, “Sarmis” and for fresh consumption and processing: “Ametist”, “Thetys”, “Alexandrina”, “Augustina”. The latest obtained hybrid, is a seedless variety for fresh consumption that was named “Indigo”. More interspecifical rhizogenic varieties are about to be created, and the breeding process continues.

These genotypes offer a wide range of advantages: large berry size, increased disease resistance and high adaptability. They are the result of a selection oriented towards polyvalent traits: increased climate tolerance, oenological potential and con-

sistent yield. However, selection must be carefully calibrated to avoid the loss of specific organoleptic characteristics that give identity to a specifical variety.

The global demand for seedless varieties adds another layer of complexity to this picture. Such varieties must offer a varied ripening period and have desired characteristics such as berry size or precocity, to complement the existing grape assortment. Their integration into regional assortments must take into account both the market and their ecological-agronomic compatibility.

Climatic factors not only influence growth and productivity, but can also accelerate the spread of devastating diseases, so the implementation of new rhizogenic varieties with increased adaptability is highly recommended.

Keywords: ecological viticulture, interspecific hybrids, climate change, genetical plasticity, disease resistance.

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