PEDIGREE ANALYSIS OF THE SPANISH GRAPEVINE CULTIVAR 'HEBÉN'

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INTRODUCTION – Several studies have shown that some varieties have had a large contribution in the production of varieties in certain regions, like 'Pinot' and 'Heunisch Weiss' in France. Previous results had pointed out that the old Spanish female variety 'Hebén', known as 'Mourisco Branco' in Portugal, could be one of those varieties with a remarkable role in the Iberian Peninsula. This ancient winegrape cultivar was already described in Spain in the 16th century as a white variety of grapevine producing large and sparse bunches of grape with big seeds.

AIMS AND SCOPES – The goal of our study was to study possible first-degree relationships between the variety 'Hebén' and different cultivars especially from Spain and Portugal.

MATERIALS AND METHODS – All accessions genetically related to the ancient variety 'Hebén' were collected from the ICVV grapevine collection, the Vitis Germplasm Bank at El Encín (IMIDRA, Madrid) and from the Colecção Ampelográfica Nacional (CAN) of Instituto Nacional de Investigação Agrária. A set of SNPs was used for genotyping at the Spanish National Genotyping Center (CEGEN, www.cegen.org) using SNPlex or Veracode genotyping platforms. On the basis of SNP profiles, cultivars were analyzed for trio compatibility (parents-offspring) and duo compatibility (parent-offspring) using Cervus 3.0 software (Field Genetics, London, UK).

RESULTS AND DISCUSSIONS – A set of 261 selected SNPs was used for the parentage analyses. A total of 23 trios and 37 duos were found where 'Hebén' was involved. Fifteen trios had not been previously reported by other authors, and all of them are supported by high LOD scores.

CONCLUSIONS AND POSSIBLE APPLICATIONS – The analysis of a set of 261 SNPs markers in different cultivars mostly from Spain and Portugal allowed to uncover new first-degree relationships and confirmed others already reported with higher LOD values. These results demonstrated the important role of the cultivar 'Hebén' in the Iberian Peninsula viticulture, which has contributed to the spread of the chlorotype A in this region.