Characterization of native vine varieties in Barcelona and Girona as a base for organic wine production

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INTRODUCTION

How they have formed native vine varieties?

- From Vitis vinifera wild plants have been domesticated in one place.
- For the improvement process and selection or hybridization.
- By introducing oldest cultivated plants elsewhere outside Catalonia, which over time may have originated different shapes in the new places. In this case we give the traditional name.

OBJECTIVES

- Importance of conservation of native varieties.
- Collect and location of existing native varieties in the provinces of Barcelona and Girona, relating them to the various denominations of origin.
- Morphological description of varieties.
- Assessment of the potential wine production of organic wines of different varieties.

RESULTS AND DISCUSSION

Table 1: Native and traditional varieties of vine

<table>
<thead>
<tr>
<th>Barcelona province</th>
<th>Origin designation</th>
<th>White varieties</th>
<th>Black varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO Penedès</td>
<td>Xarel·lo, Macabeu, Parellada, Moscattell d’Alexandria, Malvasia de Sitges, Garnatxa blanca</td>
<td>Ull de llebre, Garnatxa negre, Samsó, Monastrell, Sumoll</td>
<td></td>
</tr>
<tr>
<td>DO Pla de Bages</td>
<td>Macabeu, Parellada, Picapoll blanc</td>
<td>Garnatxa negre, Sumoll, Ull de llebre</td>
<td></td>
</tr>
<tr>
<td>DO Alella</td>
<td>Xarel·lo, Garnatxa blanca, Macabeu, Moscattell d’Alexandria, Parellada, Picapoll blanc</td>
<td>Garnatxa peluda, Monastrell, Samsó, Sumoll, Ull de llebre</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Girona province</th>
<th>Origin designation</th>
<th>White varieties</th>
<th>Black varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO Empordà</td>
<td>Garnatxa blanca, Garnatxa roja, Macabeu, Moscattell d’Alexandria, Moscat de gra petit, Picapoll blanc, Xarel·lo</td>
<td>Garnatxa negra o iledoner negre, Samsó, Garnatxa peluda, Monastrell, Ull de llebre</td>
<td></td>
</tr>
</tbody>
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CONCLUSIONS

- Eleven native varieties and four traditional varieties found.
- Four Garnatxa varieties: the most popular are Garnatxa blanca and Garnatxa negra, mainly cultivated in DO Empordà.
- Xarel·lo, Parellada and Macabeu are very important for cava elaboration mainly in DO Penedès.
- Picapoll blanc and Sumoll are widely cultivated in DO Pla de Bages, despite being minority in other regions.
- Ull de llebre is the traditional variety most cultivated in this regions.
- The most native varieties studies are grown organically in the DO Penedès, which agrees with the fact that Barcelona is the province with the largest area devoted to organic vineyard.
- It’s necessary to continue the search of possible undescribed varieties that are not part of the collections for study, recuperation and conservation.