Research on New Methods of Forcing Management for Production of Grafted Vines at S.C. Richter Tehnologii Viticole S.R.L. Jidvei

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ABSTRACT

In 2008, the study carried out at S.C. Richter Tehnologii Viticole S.R.L., sought to highlight new methods of forcing in producing grafted vines. Studies were taken on Fetească regală and Muscat Ottonel, two grape varieties widely spread in Târnave vineyard. Methods used at forcing vines were: first, forcing in wooden crates in the bed of fir tree sawdust and second, forcing in wooden crates in the bed of peat. Both substrates with a thickness of 10 cm were wet at absorption capacity. In order to avoid infestation with various species of molds, water used for disinfection has been treated with CuSO4 in concentration of 0.01%. A forcing cycle lasts 14 days, during which the temperature was 30-32°C. In the first 3 days, temperature was maintained at 32°C, after which in following 11 days was lowered to 30°C. Also, to get vine quality, it should keep the humidity to 85 %. To achieve a good solder point, circular and uniform throughout the grafting point, we have used two types of paraffin: parrafin with hormones and normal paraffin, without stimulating callus. Paraffin with hormones called ACTYGREF contains: oil 2%, chinonilon 0,11%; 2,5 dichlorine benzoic acid, viscosity 8-9 mm/s and melting point 69-73ºC with consumption of 1 g/slip vine. Normal paraffin contains oil 2%, viscosity 12-16 mm/s and melting point 76-84°C, with consumption of 2,5 g/slip vine. Following the study on the varieties Fetească regală and Muscat Ottonel it was found that the method of forcing on the bed of sawdust is better than on the bed of peat, because the exchange of temperature and humidity inside the boxes and external environment is made easier. As regards the callus formation and development, the use of paraffin with hormones has proven to be better than normal paraffin. Absence of hormones has disadvantaged grafting, because the formation of callus was not circular and had proliferation, which led to a yield lower to grafted vines of quality I. During the study, it was found lack attack of Botritys spp., so, there were not necessary treatments. The differences arising from the use of two paraffin types can be observed in the following table:

<table>
<thead>
<tr>
<th>Variety</th>
<th>Grafted vines</th>
<th>Paraffin with hormones</th>
<th>Normal paraffin</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of grafted vines, quality I</td>
<td>No. of grafted vines, quality I</td>
<td>No. of grafted vines, quality I</td>
<td></td>
</tr>
<tr>
<td>Fetească regală</td>
<td>1000</td>
<td>950</td>
<td>750</td>
<td>95</td>
</tr>
<tr>
<td>Muscat Ottonel</td>
<td>1000</td>
<td>930</td>
<td>810</td>
<td>93</td>
</tr>
</tbody>
</table>

REFERENCES