

Content of reserves in Cabernet Sauvignon and Merlot grapevines under different rootstocks

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The reserve substances are important in deciduous fruit species, as they constitute a source of carbohydrates for growth and development in the subsequent growing season. The objective of this research was to evaluate the interaction of rootstocks/scion on the vegetative growth and content of reserves in young grapevines. In the period of 2009-2011, Paulsen 1103 (*Vitis berlandieri* x *Vitis rupestris*), 101-14 Mgt (*Vitis riparia* x *V. rupestris*) and SO4 (*V. berlandieri* x *V. riparia*) rootstocks were evaluated in a greenhouse. The rootstocks were evaluated before and after grafting with the interaction of *Vitis vinifera* cv. Cabernet Sauvignon and Merlot varieties. Vegetative growth variables and the contents of reserves in the different parts of the plant were evaluated. There was a higher vegetative growth of Cabernet Sauvignon and Merlot on Paulsen 1103 and SO4. The Mgt 101-14 rootstock resulted in a lower vegetative growth on scion. The content of reserves changed according to the part of the plant. The root system showed the highest concentration of reserves while the stakes exhibited the highest total content. The total amount of reserves was altered according to the vegetative vigor of the specific combinations, and the interaction of rootstock-scion. These results are an indicative of how the reserve source is influenced by rootstock-scion combinations. These reserves can affect the bud sprouting in young grapevines as well as the deployment of vineyards.

Theme: Physiology

Area: Viticulture

Support: CNPq