P95 DEGREE-DAYS AND PHENOLOGICAL CHARACTERIZATION OF FIVE RED GRAPEVINES CULTIVATED IN A TROPICAL SEMI-ARID REGION OF BRAZIL

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Background and Aims: The Tropical Semi-Arid area of Northeast Brazil has one important area cultivated with irrigated fruits. In this area, the mean annual air temperature is 26.5°C, the total annual precipitation is 540 mm, and mean pan evaporation is about 2700 mm, which results in a negative soil water balance. Grapes are irrigated by drip irrigation, using water from the Sao Francisco River, allowing a continuous vegetative development of grapevines throughout the whole year.

Methods and Results: Data were obtained in an experimental vineyard located at Embrapa Tropical Semi-Arid, Bahia State. It evaluated the number of days from pruning to harvest starting in the first and second semester of 2003 to 2007, for five red grapevines: Cabernet Sauvignon, Grenache, Petit Syrah, Petit Verdot and Tempranillo. Degree-days sum of the grapevines was determined using 10°C as base temperature. The air temperature was measured in an agrometeorology weather station located in the experimental area. The results evaluated through Tukey's Test (5%) showed that there were not statistical differences for degree-day sum and productive cycle duration between the studied varieties.

Conclusions: The mean sums were 1815, 1950, 1963, 2154 and 2164 degree-days, related to 109, 112, 115, 129 and 117 days from the pruning to harvest, respectively for Tempranillo, Petit Verdot, Petit Syrah, Cabernet Sauvignon, and Grenache.

Significance of the Study: As this new tropical zone is starting to produce young wines, and information about the thermal demand and phenological characterisation of red grapevines are required to allow for an increase of irrigated vineyards area (Moura et al, 2007). This work aimed to determine degree-days and phenological characterisation of five red grapevines cultivated in Northeast Brazil.

Reference

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