

# Enological Potential of Grapes produced in different periods in a Tropical Region of Northeast Brazil

Giuliano Elias Pereira<sup>1</sup>, Celito Crivellaro Guerra<sup>2</sup>

<sup>1</sup>Brazilian Agricultural Research Corporation – Embrapa Grape & Wine/Tropical Semi-Arid, P.O. Box 23, 56.302-970, Petrolina-PE, Brazil

<sup>2</sup>Brazilian Agricultural Research Corporation – Embrapa Grape & Wine, Rua Livramento, 515, 95.700-000, Bento Gonçalves-RS, Brazil

Email: gpereira@cpatsa.embrapa.br.

---

## Background and Aims

The Lower-Middle São Francisco river Valley is a new vitivinicultural region located in northeast Brazil, between 8° and 9° S latitude. In this region it's possible to have two-three harvests a year, mainly due to an annual average temperature of 26.4°C, with about 567 mm of rainfall between January and April, altitude of 350 m above sea level and use of drip irrigation. There is a continuous vegetative development and grapevine growth occurs throughout the whole year. Grape composition can vary strongly according to harvest time of the year due to different climatic conditions. Wineries harvest grapes for winemaking between May and December. The aim of this study was to compare Tempranillo grapes composition harvested in two periods: June and December 2007, to best understand the influence of harvest date on grape quality.

## Methods and Results

Vines were introduced in December/2004 and grafted on vigorous rootstock (*Vitis caribaea* x 101-14 Mgt), cultivated on pergola trellis system. The analyses carried out on grapes at harvest were berry weight, total soluble sugars, pH and total acidity. The results showed that grapes harvested in June presented similar weights, but very high acidity, very low sugar content and pH as compared to grapes harvested in December.

## Conclusions

These results suggest that winemaking process has to be adapted for each harvest season and the wine potential can vary according to month of production.

## Significance of Study

New studies need to be made in order to better understand the grape characteristics and tropical wines potential from semi-arid region of Brazil.