



Vinifera master thesis abstract (template 2013)

Thesis title: Study of the Behaviour of 7 Vineyard Plots Containing Chardonnay, Tinta Barroca, Touriga Nacional, Tinta Roriz, Cabernet Sauvignon, Syrah and Merlot in the DOC Beira Interior

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Abstract (max 300 words)

Topic position & objectives: This work has the goal of studying the behaviour of 7 different *Vitis vinifera* L. varieties under the climatic conditions found in Beira Interior DOC, in terms of Probable Alcohol, Titratable Acidity, pH, Weight of 100 Berries and Brix \times Berry Weight for the maturation period, starting at veraison until the criteria for harvesting was reached by each variety (Probable Alcohol degree of 13.5-14 for red varieties and 12-12.5 for Chardonnay).

Methods: For the course of this work, the effect of two factors (grape variety and date) on four dependent variables (TTS (probable alcohol extrapolated from $^{\circ}$ Brix), total acidity, pH and berry weight) was studied.

Results: highest value of probable alcohol obtained in 22 of September for Syrah, Tinta Roriz and Merlot and lowest value was shown for Touriga Nacional and on 4 of August, the first observation date. Higher values for titratable acidity occurred in 4 of August while the lowest happened in 15 of September. TA was highest for Touriga Nacional and lowest for Tinta Barroca. Regarding the pH, lowest value was registered on 4 of August and was highest on 15 September. Lowest pH was for Touriga Nacional, while the highest corresponded to Tinta Roriz. For the weight of 100 berries, lowest weights were measured in Cabernet Sauvignon and highest values were found for Tinta Barroca. In terms of dates, lowest weight was registered on 4 of August, while the highest was recorded on 25 August. In terms of Brix \times Berry weight, lowest values were expressed in 4 of August and for Cabernet Sauvignon, while highest values came from Tinta Barroca, and on 15 of September.

Main conclusions: All the five dependent variables (TSS, TA, pH, Weight of 100 Berries and Brix \times Berry Weight) were significantly different between the two factors (Grape Variety and Date).

Keywords (5): grape ; maturation ; technological grape maturity ; *Vitis vinifera* L. ; beira interior ;

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