



## Vinifera master thesis abstract (template 2013)

Thesis title: **Contribution of each major wine phenolic family to the polyphenols index (IPT) evaluation**

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Institution/company involved: **Instituto Superior de Agronomia**

**Tribunal members (name/position):**

- Olga Laureano, Investigadora Coordenadora, UTL/ISA
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Date & location of the oral examination:

**3-12-12 5:00 PM on Instituto Superior de Agronomia**

Confidential:  Yes  No

**Abstract (max 300 words)**

Wines are an important source of phenolic compounds. Red wines have a polyphenol content (especially tannins but also anthocyanins, flavonols, resveratrol and phenolic acids) considerably higher and different than whites. The phenolic content of wines is often described by two values that are called IPT and is representative of the total phenolic profile and anthocyanin index that is representative of the anthocyanins of a wine. The goal of this study is to try understanding how the different phenolic families contribute to the total polyphenolic index of the wine. For this reason representative compounds of some major phenolic families have been studied. The molecular absorbance was measured by a UV spectrophotometer at wavelength of 280 nm. From the result we calculated the polyphenolic index per milligram and the polyphenolic index of each compound used. This gave us an idea of the "weight" that the different molecules have. Continuously combinations in pairs were made in order to try simulate better the wine environment. From the result obtained, we understood that total polyphenolic index per milligram for wine is a very complicated variable based both, in the "weight" that the phenolic compounds have but also in the proportion that can be found in wine.

**Keywords (5):** phenolic content, total polyphenolic index, phenolic families, UV spectrophotometer.

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