

# Determining a Signature BC Wine Grape

# Introduction

Members of the wine industry in British Columbia have recently debated the potential of identifying a signature red and white grape varietal to benefit the BC wine industry. As its proponents argue,

**A signature varietal will help market the region internationally and build a reputation for high quality wines.**

To date, what discussion has occurred has relied largely on anecdotal knowledge and tastings. To determine if the BC wine industry has either already chosen a *de facto* red and white signature grape and identify varieties with promising signature status,

**I used Tableau to correlate trends in grape crops against measures of wine quality based on awards for BC wines in international wine competitions.**

## Research Questions

# 1. Is there a positive relationship between awarded varietals and plantings of the same varietals in red and white wine datasets?

▷ A positive relationship indicates that the BC wine industry has already chosen a de facto red and white signature grape through a combination of plantings and production style that encourages strong award recognition.

## 2. Are there red and white varieties with consistently high award rates but lower plantings?

▷ Varietals with high award rates and lower plantings indicate the potential for a signature varietal that has yet to be widely recognized by growers and winemakers.

### 3. Are there red and white varieties with consistently high plantings but lower award rates?

▷ Varietals with high plantings and lower award rates indicates varietals that are the least likely to be suitable candidates as a signature grape.

## Data Description

1. BC Wine Grape Crop Data, 2007-2012: 319 lines of data with six attributes: varietal; tonnes harvested; percent of total red or white crop in year harvested; year harvested; red or white varietal.

Source: BC Wine Institute. Compiled from yearly survey data produced by BDO Canada LLP. Average response rate of wineries over total number of wineries in province, 2007-2012: 68%.

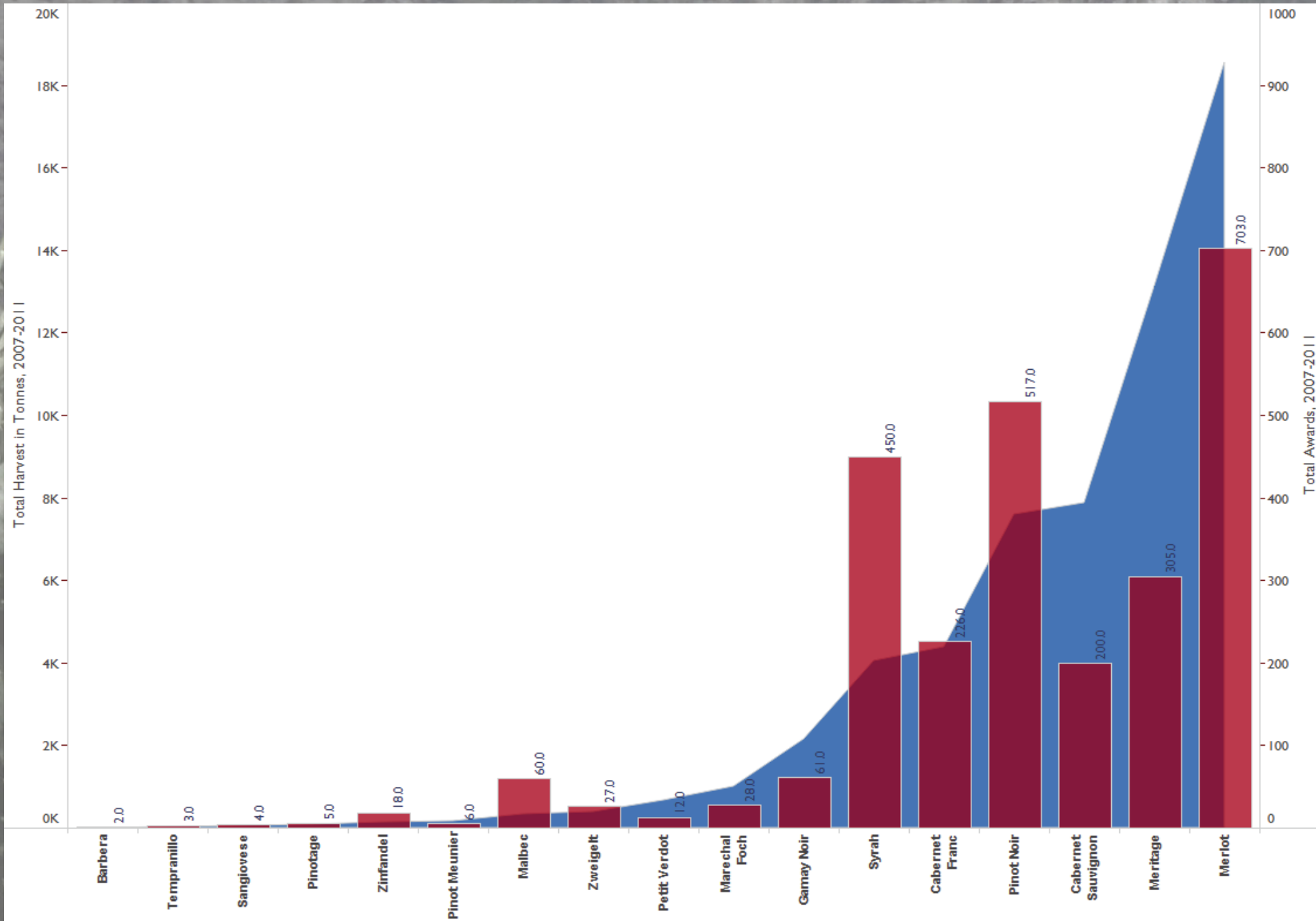
2. BC Wine Awards Data 2008-2012: 6162 lines of data with six attributes: full name of wine awarded; varietal; vintage of wine; award name; award type given; year awarded; red or white varietal.

Source: BC Wine Institute. Parsed from compilation list of awards given to BC VQA wines.

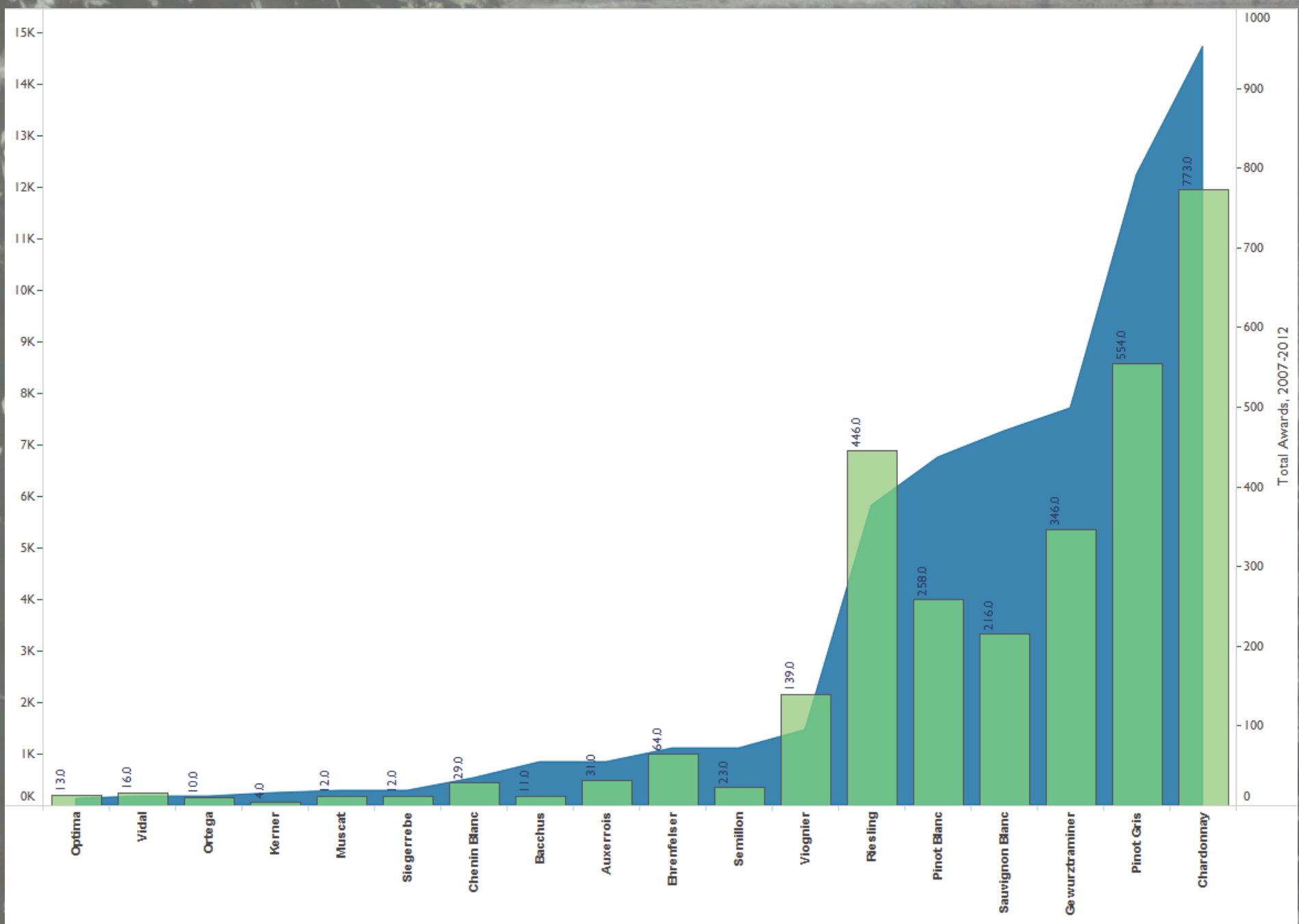
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### Red Varietals: Total Tonnes (Area) and Awards (Bars)



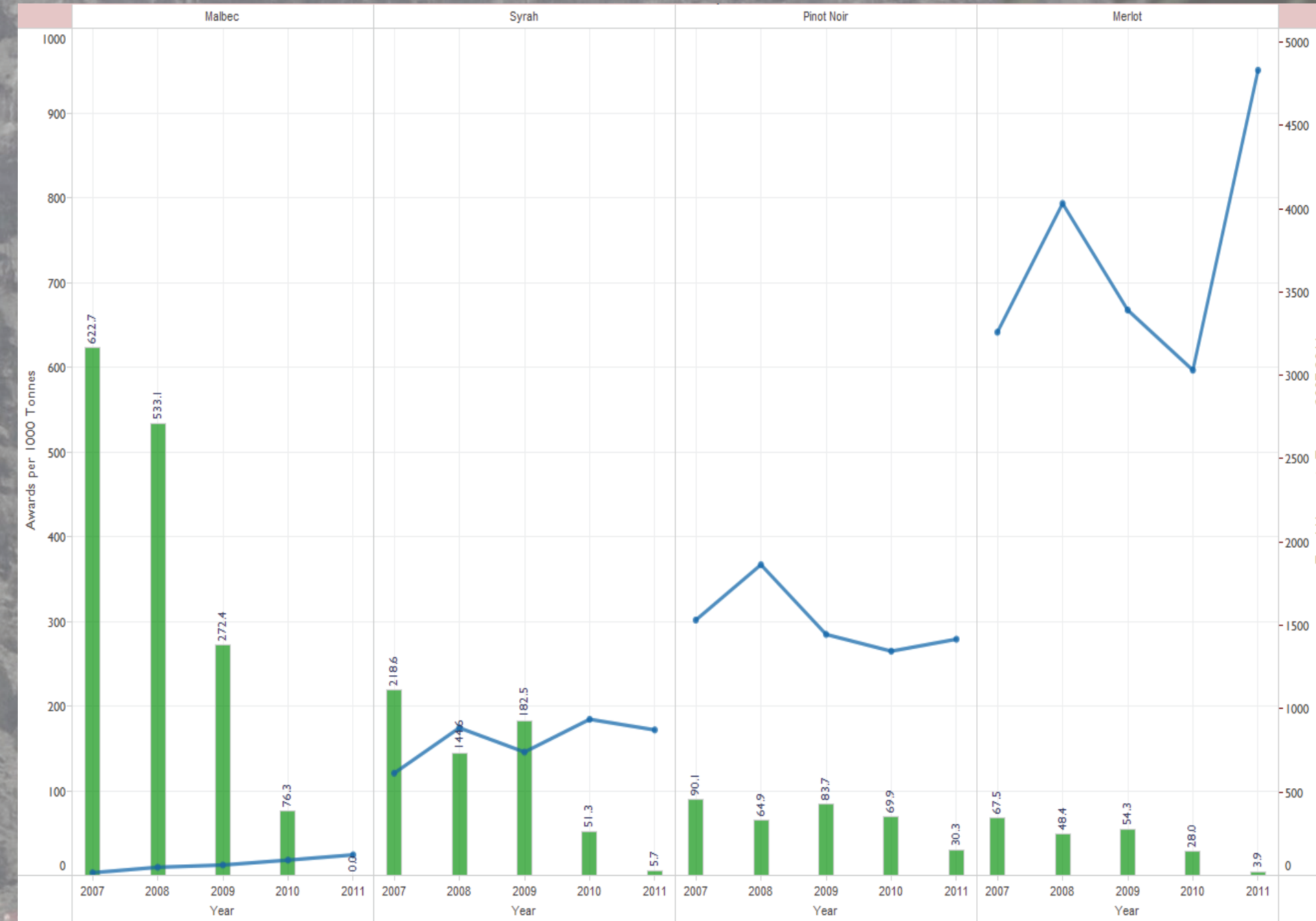
White Varietals: Total Tonnes (Area) and Awards (Bars)



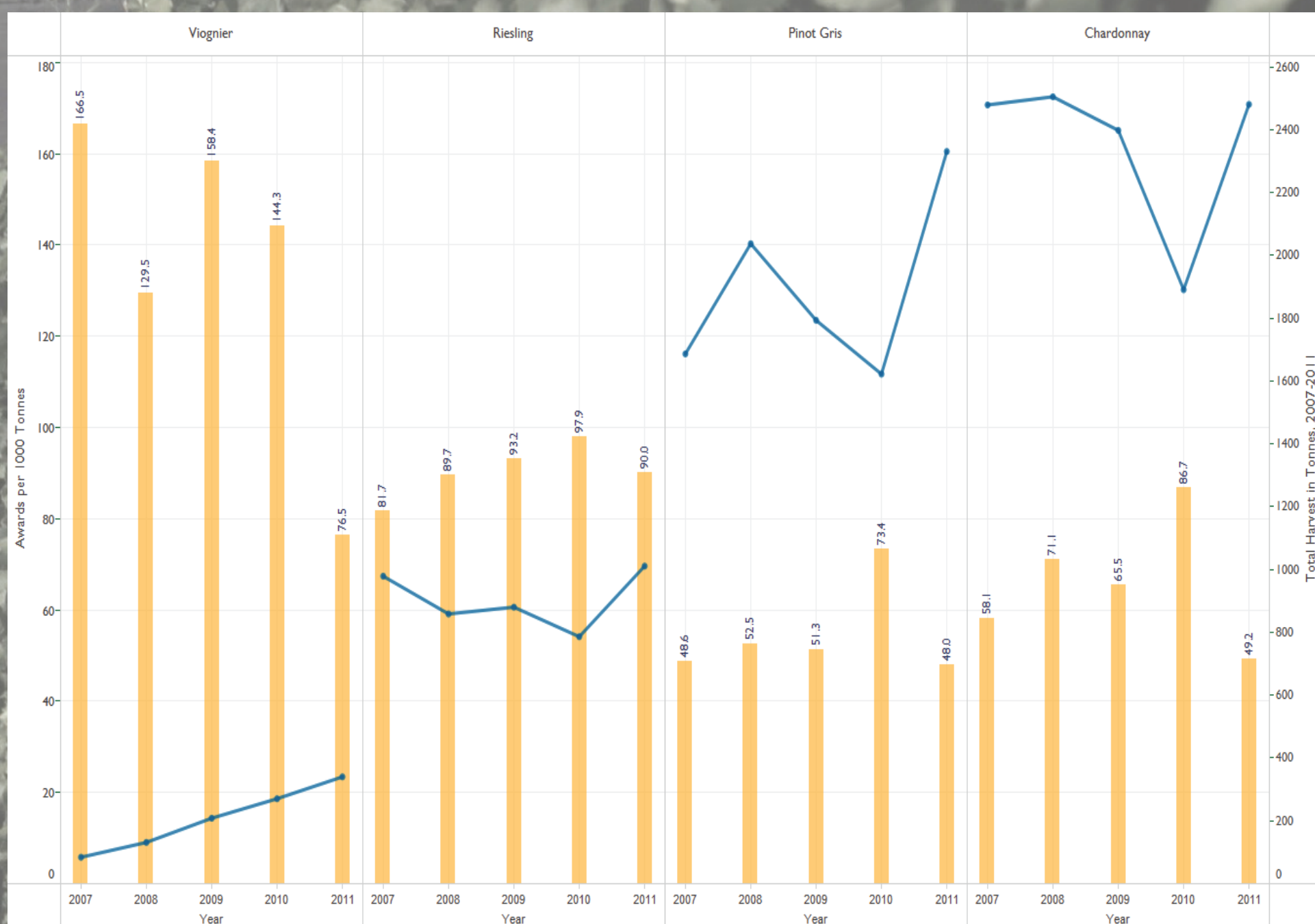
A signature grape is:

A *vitis vinifera* varietal that grows exceptionally well within a prescribed geographic area and whose production style gives a unique expression of the varietal that is particular to that area; a concept that is often described as “terroir” (McGee & Patterson, 2007).

### Red Grape Candidates: Award Rate (Bars) and Tonnes (Lines)



White Grape Candidates: Award Rate (Bars) and Tonnes (Lines)



## Methods and Analysis

1. I used RapidMiner to join datasets, aggregate counts of awards, and calculate awards per 1000 tonnes (award rate) to enable verification of initial results.

2. I then plotted awards and crop data in Tableau for all varieties to observe correlations. Areas where awards exceed the harvest in tonnes show the strongest promise as signature grape candidates. Varietals with both low awards and low plantings can be excluded as candidates.

3. I selected 4 candidates to explore in greater detail by plotting number of awards per 1000 tonnes against crop data. The last varietal in each graph (Merlot/Chardonnay) is the top planting for red and white wines in BC and was chosen as a test case for comparison.

4. Candidates where award rates and harvests are more tightly coupled indicate the strongest promise as signature grapes. Varietals with very low plantings but relatively high awards indicate future potential as signature grapes. Varietals with high plantings and relatively low award rates indicate lower possibility as signature grapes. Note that the harvests of these varietals fluctuate heavily; they may be less reliable due to climate.

## Results

**Riesling** and **Syrah** came out as clear winners for white and red signature grapes, respectively. These results are confirmed by anecdotal industry commentary (Stamper 2013).

Despite low plantings, **Viognier** and **Malbec** give high award rates. They offer potential as signature grapes, but will require champions in the industry to result in greater plantings.

## References

Gismodi, A. (2013, February 1). Which wine varietal should be B.C.'s signature? *Vancouver Sun*. Retrieved from <http://www.vancouversun.com/life/Which+wine+varietal+should+signature/7940015/story.html>

McGee, H. & Patterson, P. (2007). Talk Dirt to Me. In Howard G. Goldberg (Ed.), *The New York Times Book of Wine* (pp. 34-39). New York: Sterling Epicure.

Stamper, J. (2013, August 27). Riesling and Syrah – BC at its Best. *At the Table*. Retrieved from <http://atthetablemagazine.com/summer-riesling-and-syrah-bc-at-its-best>

## Wine writer Anthony Gismodi on signature grapes for BC:

“Isn’t it time we made some decisions about what does best and get on with refining some of those grapes, propagating the best vines and zero in on the sites best suited to them? ... we remain but a tiny outpost on the world wine map, and there can be little debate about that” (2013).