Grape and wine sampling procedures – Problems, etc.

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Case scenario (background)

- Mr. Buyer is looking for 20 000 L red wine to bottle for the export market
- Cellar A has a tank of 40 000 L. Half of this volume was bottled recently for their own label.
- Mr. Buyer visited the cellar, tasted the bottled wine and was satisfied with the style and quality.
- Original oral agreement: Bottle the wine and
- "The wine must be certified by the W&S Board"

Case scenario (what happened?)

- The wine oxidized in the half-full tank
- Cellar A added SO_2, sent the wine for bottling
- The SO_2 "hide" or "masked" the oxidative character
- The wine was bottled
- The wine was certified by the W&S Board
- Tasted shortly after bottling, SO_2 addition

Case scenario (what went wrong?)

- Mr. Buyer exported the wine

- The wine deteriorated in the bottle
- Developed an oxidative character
- Not marketable

- Who is responsible for the problem?

Case scenario (who is responsible?)

- Cellar A fulfilled the requirements of the oral contract
- The wine was certified by the W&S Board
- The wine deteriorated afterwards

- Our assessment of the problem
- Improper quality control by both winemaker and buyer

- Primarily the responsibility of the buyer
  - tasted the "wrong" wine
  - no quality control

Case scenario

The court's decision

- Cellar A is primarily responsible
- Why?
- They sold a wine with a concealed problem
  - inadequate records, quality control

Back to Grape and Wine Samples
Most important aspects

Samples must be

Representative

Record keeping

General grape sampling guidelines

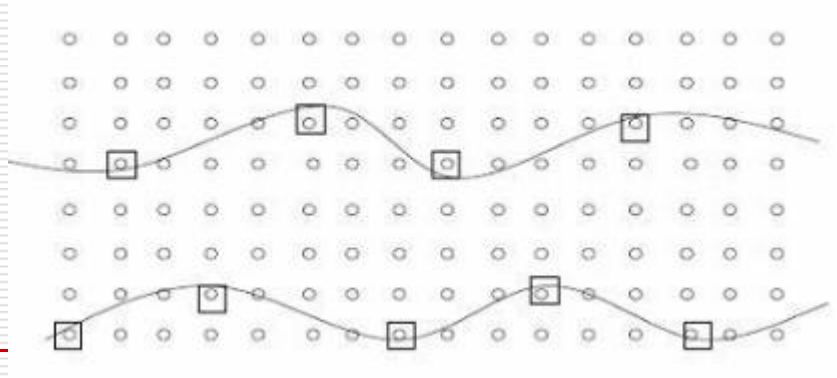
- Sample same area or vines as far as possible
- Process sample soon after picking or keep in 5-10°C container – allow to warm before analysis
- Damage berries as little as possible
- Take berries/bunches from both sides of vine

Grape Sampling

- Sample as many vines as possible

- General guideline is 40 vines per 1000
  - can be less if vineyard is very even
  - more in uneven vineyards.

- Best if vines are tagged for bunch sampling.

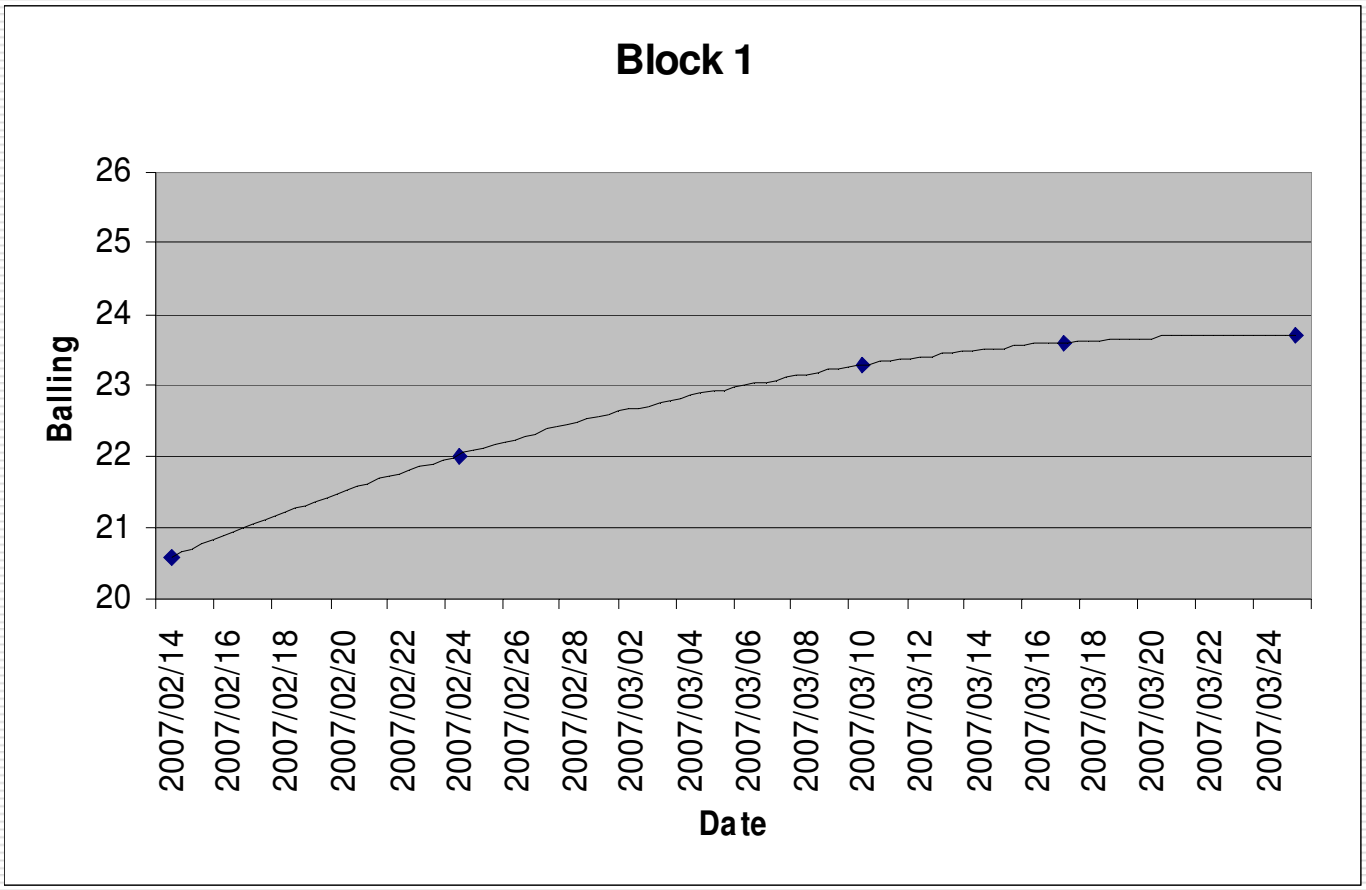


Berry vs Bunch sampling

- Less grapes taken
- More berries necessary
- Time consuming
- Sample person has to be trained
- Can measure berry weight

- Best for first ripening assessment
- Better when vineyard is very uneven
- Faster
- Better for tight bunched varieties

Ripening pattern



Labeling on bottles

As simple as possible

Cellar A Pinotage 2009 T26	Cellar B Me 2D Bl4 10 PT4

NB. The code on the analysis sheet must be the same

Bottle label will be the correct sample!!!

Cellar sampling

General procedure

From Sample valve

- Make sure tank is well mixed
- Take 200 ml of sample, discard, refill sample
- Rinse sample valve with clean water, preferably 70% alcohol solution

Top of tank

- Lower plunger slowly, so that it fills as it is lowered

Barrel sampling

- Sample with wine thief, lowering the thief in the liquid while it is filling to make sure sample is representative
- If SO_2 was added shortly before, mix wine in barrel
- Take from enough barrels for sample to be representative

For Brett – sample at bottom

Sample volume

250 ml

No glass bottles with fermenting must

Specific analysis …

Dissolved oxygen (DO)

Malic Acid or MLF?

Brett for micro

Fining tests – supply own bentonite

Specific analysis …

YAN (not on fermented must)

TA (on fermented must, inaccurate)

Filterability

New analysis
-Phenolic profiles

Possible analysis

Analysis Contract		
Client sample ID:		
Vintage:		
Alc	Label#	±0.2%v
	W/scan##	±0.3%v
Extract		
SG		
Rs (Fehling)		±0.5 g/l
Va (Distillation)		±0.05g/l
pH		±0.1
TA (Titration**)**		±0.2g/l
FSO_2	Ripper	± 5mg/l
	Asp	± 5mg/l
TSO_2	Ripper	± 8mg/l
	Asp	± 8mg/l
Protein stability		
Cold	Quick Freeze	
stability	Freeze test	

Possible analysis

Bentonite fining		
Dissolved Gasses	**O_2**	**CO_2**
Total Gases	**O_2**	
Pinking		
Colour	**520nm**	
	420nm	
Drop out		
Filterability		
Turbidity		
Malic acid		
Lactic acid		
Mlf		
DO 280		
Glucose/Fructose		
Metals	**Cu, Fe, Ca, K**	
Sterility		
Micro ID		

Possible analysis

Red Wine Phenolics
Red Wine Filtration Decision
Slow or Stuck Fermentation
Stuck MLF
Brett Management

End

You are welcome to contact me for advice

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