



The Cape Wine Master Copy

Number Seventeen

February 2014



The Newsletter of the Institute of Cape Wine Masters

Welcome.....

After a short break, *MasterCopy* is back, and the wine world certainly doesn't stand still. With 13 years at the helm, Marilyn Cooper CWM has retired from her role as Principal and later CEO of the Cape Wine Academy and Kristina Beuthner CWM takes over, wine exports are up and Distell enters China. Changes here too –but very minor; after many years, Dr Winnie Bowman CWM has passed the role of editor for the newsletter to me, though I am sure I will rely on her continuing help and support. Our aim is to keep you informed of what is happening in the Cape Wine Master world.

Dave March

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Cape Winemasters flying high



Three Cape Wine Masters tasted on the SAA Wine Selection Panel for the Airline's On Board Wine Selection for 2014 at Nederburg during August 2013. Bennie Howard, Danielle le Roux and Colin Frith. SAA only flies South African Wine on board in Business and Economy classes with one Champagne in Business Class. SAA buys wine in excess of R25 million rand from the wine industry yearly.

Congratulations to Mary-Lou Nash CWM of Black Pearl Wines who was a **Diner's Club Winemaker of the Year** Finalist in 2013

Members: Chris Bargman, Margie Barker, Berenice Barker, Rolene Bauer, Francis (Duimpie) Bayly, Paul Benade, Leigh Berrie, Kristina Beuthner, Duane Blaauw, Tom Blok, Winifred Bowman, Cathy Brewer, Sue Brown, Marietjie Brown, Giulio Cecchini, Michael Claassen, Marilyn Cooper, Henry Davel, Dick Davidson, Greg de Bruyn, Ginette de Fleuriot, Chris de Klerk, Catherine Dillon, Heidi Rosenthal Duminy, Stephan du Toit, Pieter Esbach, Margie Fallon, Mary-Lyn Foxcroft, Margaret Fry, Vashti Galpin, Peter Grebler, Brad Gold, Penny Gold, Karen Green, Jeff Grier, Bennie Howard, Val Kartsounis, Peter Koff, Hymli Krige, Michael Lee, Danielle le Roux, Hennie Loubser, Marietjie Marais-Brown, Dave March, Andy Mitchell, Gerda Mouton, Alan Mullins, Mary-Lou Nash, Boets Nel, Carel Nel, Sarah Newton, Raymond Noppé, Elsie Pells, Derek Ramsden, Jenny Ratcliffe-Wright, Andy Roediger, Christine Rudman, Andras Salamon, Lynn Sheriff, Caroline Snyman, Cornell Spies, De Bruyn Steenkamp, Lizette Tolken, Clive Torr, Sue Van Wyk, Eftyhia Vardas, Junel Vermeulen, Irina von Holdt, Meryl Weaver, Cathy White, Geoff Willis, Lyn Woodward

Honorarv Members: Colin Frith. Phyllis Hands. Dave Hughes

The Art and Science of measuring Phenolic Ripeness.



Dr Andy Roediger seems to get more than 24 hours from each day. Wine Judge (ISWC, Veritas et al), winemaker and producer of the 'Boschheim' label, Chairman of the Institute of Cape Wine Masters, intrepid wine traveller, and running an eponymous business ⁽ⁱ⁾ consulting in the analysis of polymers and plastics, and now phenolic ripeness.

Analysing phenolic ripeness grew from his CWM Dissertation and guiding an intern in his studies and led to the establishment of a method which simplified the complex Glories ⁽ⁱⁱ⁾ method (and considers some 20 others) and which enables a quantitative and qualitative analysis of a multitude of grape compounds. Unlike other scientific methods which just produce data, though, Andy's analysis carries with it a practical recommendation of any improvements that could be made in the growing or harvesting of grapes based on the resulting data.

Few viticulturists or winemakers were doing any real analysis of phenolic ripeness, and Andy believes perhaps only 20% do so now. Most rely on refractometer readings of sugar levels and their own ability to taste a grape's ripeness, a difficult and subjective assessment which properly might take years of experience to achieve. Andy Roediger is convinced of the advantages of using a definitive and reliable measure of phenolic ripeness. He offers three reasons why.

Firstly, Balling readings are only one aspect of ripeness, a grape could be phenolically ripe at 22 Balling but the winemaker might be waiting for it to achieve 24 Balling and in the meantime some phenolics are polymerising. His analysis might remove some stressful vineyard moments. Secondly, his method allows up to 60 blocks of vines to be analysed in a day when other methods might manage two or three. Thirdly, his method allows practical assessment of results, and he is able to recommend not just

alterations to harvest timings or yield, but canopy management, irrigation, varietal selection and siting. Andy has even identified wines and vineyards where water or heat stress has occurred only to have this confirmed by the winemaker. Further, he is able to determine potential depth and complexity of flavour, depth of colour and longevity of the wine. Research in the USA has found a strong correlation between wines predetermined as of good quality when tested for phenolic ripeness and scores of 90 plus when later assessed by Robert Parker. The adage that you cannot make good wine from poor grapes proves the importance of getting grape development right and analysing phenolic ripeness helps remove uncertainty.

"The stumbling block is a definition of ripeness", says Andy. Achieving a certain Balling level may not be an indication of other key factors, such as grape phenolics. Phenolics are chemical compounds containing tannins, colourants and aromatic compounds. A balance between tannins and colourants help stabilize a wine and lead to flavour development. Andy's analysis can plot each separate compound's development (by measuring at two or three stages) and compare this against accumulated data of levels of ripeness for each variety. There are three tests for this analysis. Plotting the development of anthocyanins shows when they have peaked at full ripeness. Then theoretical ripeness potential can be measured against real winemaking, the quantitative extraction of anthocyanins and the ratio (50% extraction is not good, 60% extraction is better) will indicate potential wine quality. Also, the contribution of tannins to overall phenolics is assessed and this also indicates the wine's structure and future. His analysis shows the contribution and potential of every compound, even separating seed tannins from skin tannins to examine the role each might play during fermentation and later in bottle.

Andy is keen, though, to reduce the complexity of the analysis for the winemaker. "It definitely is a numbers game", he says. So he performs the analysis then translates it into non-scientific language, offering practical advice and he admits he won't sugar-coat his findings. He will clearly show where changes might

help, such as altering irrigation methods, amounts or timings, adjusting the canopy, changing each vine's cropping, harvest timings and fermentation methods – especially the use of enzymes. Andy believes his analysis is particularly useful for producers looking to make vineyard changes or working with young vines. He cites the Young Wine Competition as a method of winemakers benchmarking their wines against their peers and says how his analyses can do the same for them without the stresses of competition.

Many winemakers use technology to assess elements such as pH, sugar, acidity, alcohol etc. in their wine so using technology to assess grape quality before fermentation seems logical. Not doing it could be viewed as 'closing the stable door after the horse has bolted'. At the least it is missing an opportunity. In difficult economic times, though, is such consultation

another unwelcome expense? Andy says for some it might be, but it needn't be a lifetime commitment, many might use him once or twice to achieve the quality levels they are looking for then not need further help for years or at all, others might use him infrequently when making changes or establishing new varietals or brands, others might just want to check they are doing everything possible to maximise potential. Many iconic wineries are using Andy's consultancy on such a basis.

There are many, of course, who believe that winemaking is an art as much as a science, and rely largely on human analysis in the vineyard to achieve their goals. The science of measuring phenolic ripeness and Andy's personal and qualified interpretation could offer the perfect combination.

Typical report format;

Date	Ea%	[A]1 mg/L	[A]3.2 mg/L	Skin Tannin	Seed Tannin	Mp%	Brix	pH	TA g/L
13-Feb-06	44.8	1999	896	35	0	1.5%	17.1%	2.92	9.4
22-Feb-06	59.4	1971	1171	46	0	3.7%	18.3%	3.04	8.8
03-Mar-06	49.6	1785	886	35	4	9.3%	19.6%	3.21	7.3

Ea% Percentage extraction of total anthocyanins available during winemaking conditions;
 [A]1 Total amount of anthocyanins in the grape; [A]3.2 Amount of anthocyanins extractable under winemaking conditions;
 Tannins Amount of skin and seed tannins. Mp% Contribution of tannins relative to total anthocyanins as a percentage.
 (i) www.roedigeragencies.co.za (ii) Y Glories, Handbook of Enology, Vol 2, Wiley & Sons, 2000

Nicolas Joly; still crazy, after all of these years



A somewhat low-key event during the Spier Secret Festival

at their Stellenbosch winery was a visit by legendary Biodynamicist and Savenniere producer par excellence, Nicolas Joly. A small but eager audience of fruit growers, farmers, winemakers and Chenin Blanc lovers heard the wisdom of a pioneer of 'tuning the vine and the wine into life and earth frequencies'. "All I do is help the plant to connect to cosmic forces", said Joly. No one can deny the existence of such

Forces - they are everywhere and effect every living organism and even sceptics must acknowledge the tides and growing seasons. Vines have life forces like every other matter and Joly is insistent that we should speak not just of life forces, but the spirit of those life forces. He showed numerous pictures of plant material, fruit and wine when left to their own life forces and contrasted them with the effects of the same when treated with chemicals. Natural effects were harmonious, complex and uniform, man-made effects (such as treating with hormones or chemicals) showed distorted, ugly patterns under the microscope. Joly used the humble snowflake to make his point. "The 3500 plus intricate patterns are spellbinding",

alongside, he showed the distortions of flakes once under the effect of man-made forces, such as the frequencies of cell phone masts. Joly believes this is the “purest illustration of cosmic forces”. And a clear illustration of our interference.

“What we want is the full expression of life in a wine”, said Joly, ‘every vine is a nerve and must be treated like one’. Each vine will connect with the forces of nature, the winemaker’s role is to allow this, to encourage it and to avoid distorting this. Chemicals will distort this, and Joly showed some interesting examples of what gamma rays (used widely in food preparation) do to the tissue of the food itself – even the frightening results of the effects of running food under a bar code machine.

Joly wants the winemaker to be “the conductor of the vineyard orchestra”, and “the duty of the new generation of winemakers is to bring wines to the earthly level, to re-connect with nature’s life forces and avoid non-earthly treatments (such as synthetic chemicals). The problem with many of the old generation of winemakers is that they are still distorting wine – wanting it be clean; for me, deposits in wine are a sign of quality”.

If you see a highly filtered wine, “buy the filter, not the wine,” laughs Joly.

Joly passionately extolled biodynamicism. “Poor organic farming goes nowhere, better to go even partially to biodynamicism. With it you see the happiness of the vine, it achieves its own balance and he warned against promoting early flowering; “it is like being served a beautiful meal at 3am”, he said, “as uncomfortable for you as it is for the vine”. With biodynamics, says Joly, leaving grapes on the vine much later is less risky, and that far from being a threat (“rubbish!” he says) oxidation is a necessary life force. Oxygen gives life to wine as well as takes it and healthy wines will not be spoiled by it, in their making or afterwards; modern wines left open die after a day or two, “my wine is still good after nine days of opening!”.

Only SO₂ (Sulphur Dioxide) from certain origins should be used; such as from volcanoes, believes Joly. It has

the right life force which allows you to reduce the usage by around 90%. Normal SO₂

is active for some hours, good SO₂ is active for weeks. “I am able to use 1 or 2 gr/hl before fermentation and 1 or 2 g/hl before bottling – that’s all”. Also, SO₂ is a force of fire, so why negate its effects by mixing it with water? Better to use it in powder form and better to use 1kg/ha of Bordeaux mixture on the vines as a preventative than using 5kg/ha or more to get rid of rot once it has appeared.

“We want vines with strong roots, going deep – mine can be as deep as 15 metres – irrigating them stops the need for downward growth, we are changing the vine’s behaviour”.

Joly believes it will take around five years to negate the effects of modern treatments in a vineyard in order to become biodynamic and agrees that disease can still attack biodynamic vineyards, “but without the power or resulting damage that would be done normally”. Biodynamics is about returning to nature, and working with it, says Joly, only adding forces the vine will attune to; “we shouldn’t talk about substances, but the spirit of the substance, and use it to align the vine with its natural dynamic forces”.

“I am considered completely crazy by many, but I don’t mind”, he quips. As he rightly points out it is not about the science; “for quality wine; proof doesn’t exist”.



A study in New Zealand has found that couples who share a bottle of wine at least once a week enjoy marital life far more than those who steer clear of alcohol. Women were four times more likely to be happy if they drank at least once a week with their partner than if they never do. Meanwhile, men were more than three times more content. ‘The more frequently a respondent drank with their partner, the more likely they were to report their relationship as happy.’