

DIPLOMA EXAMINERS’ REPORT - 2011/2012

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INTRODUCTION

This report has been compiled with the primary aim of assisting those who are preparing to sit Diploma Examination Papers in the future. It will also be of benefit to lecturers, course co-ordinators, tutors and mentors. It aims to give brief comments on candidates' answers to each question, as well as highlighting common pitfalls and successes. It is designed to provoke constructive thought as much as to give all the answers. Comments on individual questions are preceded by some statistics and general comments. In some instances, guidance notes are supplemented by extracts from candidates' responses. Where appropriate, advice is given on where additional marks could have been gained. Whilst examples are not provided for every question set, there are examples of sections from each of the specific styles of question – coursework assignments, tasting questions and theory questions from closed book papers. In each instance, the scripts have been selected to illustrate good coverage of either the topic as a whole, or a specific sub-section of it.

It should be borne in mind that these are not the definitive answer to any of the questions. Some may omit a number of facts, or in the case of the coursework assignments, may express a degree of personal opinion rather than fact. Nevertheless, they are reproduced here because they are a good representation of the standard required to pass or excel in the Diploma examination. In some instances, we have also included less than perfect answers. These illustrate the difference between a very good script and one that requires more work to reach the standard to justify a pass, or in some instances to illustrate what is not acceptable in an examination of this level.

Candidates' responses published in this report were actual submissions in the 2011-12 examination cycle and as such are anonymous and are reproduced as submitted to the examiner. In some instances, they will contain information that is incorrect.

It is suggested that candidates revising and preparing for a particular type of question - tasting, paragraph, essay etc - read all comments on similar questions, as these often contain general advice, which is applicable across the board. Therefore, the candidate preparing for Unit 4, 5 or 6 may also find comments relating to both tasting and theory in Unit 3 helpful.

On a final note, as always, I would like to convey my thanks to all those who contribute their time and expertise to help the Awards team put the Diploma examination together and who contribute to the success of this qualification both in the UK and overseas.

To the internal and external members of the Examination Panel, the Moderating Panel, the examiners, the administration teams in the Diploma Approved Programme Providers, the examination invigilators and tasting teams who work so hard behind the scenes on the big day, the Results Panel and the Appeals Panel – my thanks to all of you!

Janet Bangs
Chief Examiner, WSET Awards
December 2012

**STATISTICAL ANALYSIS
Comparative Pass Rates by Paper**

| Paper | 2012 | | | 2011 | | | 2010 | | | 2009 | | | 2008 | | 2007 | |
|----------------------|--------------|------------|-------------|--------------|------------|-------------|--------------|------------|-------------|--------------|------------|-------------|----------------|------------|-------------|------------|
| Unit 1 CWA | April 90% | Nov 91% | | April 88% | Nov 91% | | April 75% | Nov 90% | | April 99% | Nov 82% | | (1) | | | |
| Unit 1 Case Study | Nov 87% | Mar 68% | June 74% | Nov 83% | Mar 67% | June 84% | Nov 76% | Mar 71% | June 68% | Nov 68% | Mar 77% | June 66% | Not applicable | | | |
| Unit 2 | 93% | | | 90% | | | 88% | | | 81% | | | 84% | | 81% | |
| Unit 3 Tasting | June 74% | Jan 66% | | June 85% | Jan 72% | | June 62% | Jan 62% | | June 78% | Jan 76% | | June 69% | Jan 63% | June 63% | Jan 55% |
| Unit 3 Theory | June 43% | Jan 46% | | June 54% | Jan 34% | | June 66% | Jan 49% | | June 59% | Jan 53% | | June 63% | Jan 50% | June 59% | Jan 42% |
| Unit 4 | 67% | | | 63% | | | 61% | | | 64% | | | 60% | | 70% | |
| Unit 5 | 75% | | | 70% | | | 64% | | | 74% | | | 63% | | 69% | |
| Unit 6 | 65% | | | 60% | | | 66% | | | 67% | | | 61% | | 61% | |

NOTES:

(1) Direct pass rates for Unit 1 are not given as this Unit was awarded on completion of four coursework titles.

GUIDANCE ON EXAMINATION PREPARATION

The Candidate Assessment Guide provides plenty of valuable guidance on how to approach the various assessments of the WSET Diploma qualification. This report contains additional information, not only here but also under the sections on individual question types.

This section of the report covers some general comments on the issues and problems that come up year after year and also gives guidance on pitching responses at the right level, plus an insight into examination grading criteria.

Supplementary reading

Candidates are reminded that the Study Guides issued by the WSET contain an overview of each section of the syllabus only and make frequent reference to additional sources of information. Candidates should be warned that the examination panel specifically refers to material listed as “required reading” when setting examination questions. Candidates who limit their study to the Diploma Study Guides in isolation run the risk of coming unstuck in the closed book examinations as a result. These additional sources of information should be just as much part of a study plan as the Study Guides themselves, and for candidates intent on achieving high grades; the importance of study beyond the “required reading” cannot be underestimated. In addition, there is clear evidence that candidates are not reading the Candidate Assessment Guide. This has been written specifically to help them prepare for assessment, and gives very clear guidance on the approach to assignment writing and the candidates’ obligations in this respect, as well as general exam technique. Candidates who do not read this document may not reach their full potential in the examination.

Commercial awareness

Unit 1, The Global Business of Wines and Other Beverages specifically examines candidates’ commercial awareness through the means of coursework assignments and the closed book case study. There is some evidence that candidates are ignoring the fundamental fact that wine and spirit production and trading are business enterprises, and therefore fail to bring a commercial approach to their answers where appropriate. All coursework assignments have a commercial focus and a pass cannot be achieved simply by reiterating facts relating to production methods. Titles for the 2012/13 coursework assignments are on the WSET website under www.wsetglobal.com/qualifications/diploma. Titles for the 2013/14 academic year will be published at the end of May 2013.

Examination Technique

Taking note of these can make a big difference to your examination result.

- Answering the question as set.
- Writing legibly and presenting answers clearly.
- Avoiding careless errors such as mis-spelling a word contained in the question.
- Applying the Systematic Approach when answering tasting papers

In addition, we have noticed that candidates who take advantage of “examination preparation schemes” perform considerably better on the day than those who do not. Many of the Diploma Programme Providers run such schemes for their candidates.

Where these are not available, candidates can apply to join the Wine & Spirit Education Trust’s Diploma Assessment Preparation scheme (DAPs) and should speak to the administrator at their Approved Programme Provider in the first instance.

Levels of Assessment Skills

Having an idea of the kinds of skills that are being assessed will help candidates to direct their study effectively and write an answer that demonstrates they have these skills. Consider the following types of assessment, and how each successive one requires a deeper level of expertise:

- Factual Recall - (how things are)
- Explanation - (how things could be and why)
- Analysis - (how things might become and how they ought to be)

Factual Recall

Factual recall tests basic knowledge. This usually takes the form of an answer to a ‘what’, ‘where’ or ‘who’ question. This knowledge can be simply recalled, if known. This is the simplest form of assessment and success can be achieved through “learning by rote”.

| | |
|-----------------|---|
| Sample question | What style of wine is Châteauneuf-du-Pape? |
| Answer | Full-bodied red wine with relatively soft tannins, lowish acidity and high alcohol. |

Factual Recall + Application

Factual recall can be combined with application to assess to a greater depth. This is commonly achieved by putting the question into a relevant context, e.g.:

| | |
|-----------------|---|
| Sample question | A customer asks you to recommend a soft, full-bodied red wine. What would you recommend? |
| Answer | Châteauneuf-du-Pape. (<i>This is obviously only one of several legitimate answers.</i>) |

No matter how many facts the candidate has memorised, these do not constitute an **understanding** of a subject area. If the facts have been learnt by rote, the candidate either knows the answer or not. Using insight to work out what would be a correct answer, when the answer is not known, only comes at the next level: explanation.

The lower level WSET qualifications (Foundation, Intermediate and Advanced Certificate) mostly limit themselves to testing factual recall, assessed via multiple-choice format questions.

In the Diploma, the multiple choice Unit 2 examination, and the questions that require the candidate to write a paragraph about given topics which appear in units 3, 4, 5 and 6 are also mainly testing factual recall and recall + application. Factual recall will get candidates a reasonably long way in the WSET Diploma, but is not sufficient to guarantee success in Unit 1, and is unlikely to be adequate for the Unit 3 theory paper either.

Explanation

Explanation goes beyond 'what', 'where', and 'who', and asks 'why'. This type of question tests not just memorised knowledge of the subject, but understanding as well. This is because in order to explain something, the candidate needs to know not just 'what is the case' but 'what would be the case if things were different'. This kind of 'counterfactual' understanding is achieved by spotting patterns in the basic facts, and deducing explanatory mechanisms behind them. Alternatively, a tutor could explain the mechanisms. However, if the candidate then finds that they have to memorise this information, it is a clear sign that they have not really understood it, and will not be able to apply the mechanism themselves in other scenarios, such as in the examination itself.

The human brain naturally tries to find patterns in data – though some people are able to do this more easily than others. These patterns mean that a lot of information can be deduced from a few simple principals. The skill of explanation is a higher order skill than recall, but the amount of data that needs to be memorised is less.

| | |
|-----------------|--|
| Sample question | Why is Châteauneuf-du-Pape a full-bodied, high-alcohol red wine with relatively soft tannins? |
| Alternatively | Account for the style of Châteauneuf-du-Pape, or explain the style of Châteauneuf-du-Pape. |
| Answer | The Grenache grape naturally gives wines that are high in alcohol, and full-bodied, but with soft tannins. The hot ripening conditions due to the location in sunny Southern France, aided by low-trained bunches benefitting from heat reflected from the ground also helps achieve fully ripe tannins and speeds sugar accumulation in the grapes. |

A much more detailed explanation is also possible of course, and would be expected in the examination itself.

The basic facts (hot climate, Grenache-dominated blend) could be memorised and recalled, but what makes this a question about *understanding* rather than *factual recall* is the implication that if these causal factors were altered, then the style of Châteauneuf would change. For example, if the climate were cooler, then alcohol levels would be lower, and the tannins less ripe, or if more Carignan (or Cabernet) were used in the blend, then the wine would have firmer tannins, lower alcohol and less body.

Explanation + Application

Just like factual recall, explanation can also be applied to a particular situation to assess explanation combined with application. This is where the counterfactual implications of the causal process are explicitly put to work. For example, if X were not the case, then B, rather than A would be the outcome.

| | |
|-----------------|---|
| Sample question | You are a producer of Châteauneuf-du-Pape and one of your important clients has requested a wine with lower alcohol. How can you meet this demand? |
| Answer | This would take the form of a list of things you could do to achieve this style, such as altering the blend to include less Grenache; sourcing grapes from cooler sites; increasing yields; using the vine canopy to shade the ripening fruit; retraining the vines to raise the fruiting zone; using open fermenters and low-conversion yeast strains, etc, etc..... |

The WSET Diploma assessment, particularly the essay-format questions in Unit 3, aims to test *understanding* of the subject, rather than an ability to *recall facts*, but there is another level above this which should be considered during preparation for Unit 1. This is *analysis*.

Analysis

Analysis requires you to draw conclusions from the facts and the causal mechanisms behind the facts. This might involve issues such as:

- Identifying and extrapolating trends to make predictions.
- Identifying which of a set of explanations is the most likely, or which of a set of causes is the most important.
- Identifying what the consequences of something are.

| | |
|-----------------|--|
| Sample question | Average alcohol levels in Châteauneuf-du-Pape have been rising over the last ten years. What are the main reasons for this and to what extent is the trend likely to continue? |
|-----------------|--|

| | |
|--------|--|
| Answer | An important point here is that in this context the inclusion of the word ‘main’ (as in ‘main reasons’) is not making life easy by limiting responses to <i>some</i> rather than <i>all</i> of the possible reasons. It is challenging the candidate to identify which, of all the possible reasons, are the most important ones. Once these have been identified, the candidate would have to argue to what extent they are likely to continue to have an effect. |
|--------|--|

Analysis + application

In the same way that recall of knowledge and explanatory skills can be “applied”, so can analysis. This usually takes the form of making recommendations.

| | |
|-----------------|---|
| Sample question | What, if anything, should producers in Châteauneuf-du-Pape do in order to slow or reverse the trend towards increasing alcohol levels? |
| Answer | Note the subtle difference between ‘what can they do’ (a list of possible responses, as set out under ‘explanation + application’ above) and ‘what should they do’. In order to establish what producers should do, it is necessary to consider the possibilities, and argue which of these are going to be the most prudent or effective and this forms the basis of the response to the question. |

Summary

As candidates progress through the various levels of WSET Qualifications, they move from learning ‘what wines are like’ to understanding ‘why they are like that’. An understanding of the six factors taught at Level 3 will form an excellent foundation for Units 3, 4, 5 and 6, but Unit 1 offers the chance to go beyond ‘what the world is like’ and ‘why it is like that’ to examine ‘what the world could be like’, ‘what it should be like’ and ‘what we should do about it’. These are far more interesting and challenging questions than mere factual recall. They should inspire candidates to explore the possibilities as they ponder them and hopefully find some convincing solutions.

Examination Grading Criteria

Grade bandings for the Diploma examination are largely determined by the content of the submission judged against the “marking key” or “marks schedule” for each question. For example, the candidate covering 75% or more of the content defined in the marking key has a good chance of achieving a distinction grade. However, there are also other elements that come into play beyond pure factual content. The grade bandings are summarised below:

Fail Unclassified <44%

Seriously inadequate answer, through lack of information, or errors, demonstrating in general a very weak understanding of the subject. Insufficient evidence of understanding to award a pass, through brevity, lack of detail or inaccuracies.

Fail 45 to 55%

Borderline candidate, who whilst close to a pass does not give the examiner enough to award a Pass grade. Insufficient evidence of understanding to award a pass, through brevity, lack of detail or inaccuracies.

Pass 55% to 64%

The candidate demonstrates an adequate understanding of the topic, covering sufficient of the main points to be "more right than wrong." A basic answer, with limited use of examples and depth of information, which may contain some errors.

Pass with Merit 65% to 74%

There should be evidence of clear understanding here, with a greater factual coverage, and better depth and accuracy of information and examples. Very sound, but without the extra edge for a pass with distinction.

Pass with Distinction >75%

The candidate should demonstrate a thorough and accurate understanding of the subject in depth, and show some flair, creativity or originality in analysis, argument or choice of examples.

COMMENTS ON INDIVIDUAL QUESTIONS

Unit I, The Global Business of Wines and other Beverages

Before commenting on each specific assignment title, here are some general comments about the grading of coursework assignments:

All assignments are graded out of 100. Of this, 20 marks are available for the candidate's handling of the assignment. This includes the diversity of the bibliography, the presentation of the work in terms of spelling, grammar and legibility and the structure and style of the assignment. The latter incorporates issues such as coherence, flair, fluency, use of illustrative examples and the candidate's method of approach to the assignment.

The allocation of the balance of 80 marks varies according to the individual assignment and will be detailed as appropriate under each Assignment Brief.

In terms of presentation, marks will be lost where work is presented with spelling and/or grammatical errors. With spell checkers on all PCs, there is really no excuse for errors of this kind. Structure is also important, particularly if candidates do not follow the format dictated by the various sections of the Assignment Brief, as an automatic fail grade is awarded where any section is not addressed. The bibliography is an essential part of the assignment and those submitted without one are penalised as a result. Many candidates appear confused over the difference between a bibliography and "Reference Notes". The Candidate Assessment Guide explains this. The bibliography needs to draw on a variety of sources – books, magazines, internet, interviews – and certainly needs to have strong commercial evidence of the kind that can be obtained from trade journals such as *Drinks Business*, or *Just Drinks*. These are vital for identifying trends and topical issues. The internet features strongly in many candidates' bibliographies. This is fine, so long as there are other sources as well, such as text books, personal contact with subject experts and trade press. There is however a worrying dependence on "unreliable" sources such as Wikipedia. The bibliography should be correctly referenced throughout the body of the assignment – something very few candidates actually do. This is where the "reference notes" or footnotes come into play. Guidance on this is given in the Candidate Assessment Guide. Failure to follow this will result in lower marks in this section of the Assignment Brief.

A number of examiners have commented on misuse of footnotes and appendices. Some assignments are submitted with footnotes which account for up to half of each page of the assignment. This is simply abusing the restriction on the maximum permitted word count and in such cases their content is not included in the marking process. In addition, some candidates submit excessive quantities of appendices. In many instances, these are not even referenced within the body of the assignment and their purpose is therefore questionable. There is a general feeling that these are often included to show how much work had been done but they are often actually surplus to requirements.

Next, a few words on the use of the SWOT analysis in coursework. Whilst these do have their uses, some candidates include them indiscriminately without really making any conclusion regarding their findings. At worst they can be repetitive, of limited relevance, and eat into the word-count with little to show for it. At best they can highlight key points, generate imaginative thought and clear the mind. They should be used with caution and should never form the bulk of the work unless the assignment brief instructs you to do so.

Finally a couple of general comments that apply to all assignment writing. Candidates are reminded that work submitted for assessment purposes must include no personal identifier beyond the candidate number – names should not appear on work in any format beyond the signature on the front sheet. Some pieces of work submitted show signs of collaboration or “leading” by the Approved Programme Provider, or in the worst cases, plagiarism or simply copying another candidate’s work. There have been some appalling instances of candidates simply lifting huge sections of work from papers published on the internet. Where this has been detected, a fail grade has been awarded. Candidates must remember that assignments are to be the sole work of the individual submitting them and they should be in no doubt that it is always very obvious to the examiner where this is not the case. The penalties in such instances can be very severe indeed, and in repeated instances, will lead to the candidate being barred from completing this qualification.

Coursework Assignments

November 2011

| | |
|---|--------------------------|
| The role of science and technology in wine production. | |
| Required content and suggested approach Viticulture and winemaking have changed dramatically over the last 50 years. Advances in science and technology have allowed producers to take a much more active role in fashioning their wines. In many cases, they are no longer powerless when things go wrong. Science and technology have also allowed much more efficient and profitable wine production. Whilst some developments may be controversial, others clearly bring benefits for both producers and consumers and therefore ultimately for the wine industry as a whole. | |
| <i>Answers: 353</i> | <i>Passes: 321 (91%)</i> |

The open book coursework assignments always generate high marks, and this was no exception. Where lower marks were achieved, this was invariably because candidates strayed from the candidate brief, for example by not paying enough attention to the weighting of the various sections and therefore failing to bring enough emphasis to the key parts of their assignment.

For this assignment, candidates were initially required to give an overview of how science and technology have improved or altered viticulture and winemaking over the last 50 years. This should have encompassed work in the vineyard, processes in the winery and improvements in bottling. Having identified the key developments, they were then required to select two specific areas of scientific research or technological progress that have been applied to wine production, one relating to viticulture and one to winemaking. They were asked to explain what these were, how they worked and how they were applied in the wine industry and then to discuss the impact of these two developments on the wines produced. Finally, there was a section where candidates were invited to consider what developments in science or technology were likely to have an impact on wine production over the next 20 years. This was where better candidates shone, as answering this well relied on an ability to express personal opinion rather than simply paraphrase information uncovered in the course of research.

The following script achieved high marks. It is clear and well written with a good introduction, good choice of the two areas of scientific research/technology and a good balance of emphasis in correlation to the weighting of the various sections of the assignment. It included an extensive bibliography which was referenced throughout the assignment and some useful appendices, one in particular, setting out “milestones in wine since the 1960’s” in table format, which is also reproduced here.

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The Role of Science and Technology in Wine Production

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Section I : Introduction - The Last 50 years

Wine does not make itself, and human intervention is required. Thus technology, accidentally or through scientific innovation, has always played an important role in wine production. But in the last 50 years, the role of science and technology has been particularly transformative, as it has led to the industrialization and globalisation of wine. Michael Mondavi noted "We've converted from being a cottage industry into a competitive consumer luxury-goods industry."¹.

The scientific approach to wine production probably really came into prominence in the second half of the 20th century with Emile Peynaud². By applying rational analysis to bring vinification into the modern era, he developed the role of the "consultant oenologist", who can advise wine producers across geographies, which started the modernisation of much of the "Old World"³. Recognising the importance of yeast, bacteria and temperature, wine-makers were able to now achieve better control over fermentation and faults, by having cleaner winery environment, using dry yeast, stainless steel, filtration and refrigeration.

By the early-80s the "Old World" accounted for 74% of the global export trade⁴. And it was around this period, when the University of California, Davis in the USA, and the institutions around Adelaide, Australia⁵ that started to really dominate development of oenology and viticulture, driving innovation through to the present day.

Not surprisingly, this also corresponded to the dramatic increase in market share in global trade of the "New World"⁶. From a mere 1.6% share in 1975-79, this group of countries accounted for 29.3% of global exports by 2005-09⁷.

The list of scientific innovation that drove this growth is long (see Appendix II), and the technology was increasingly applied globally by new generations of consultants or "flying winemakers"⁸. This has led to the development of what is considered "international styles"⁹ of wine, wines that reflect the vision of the winemaker, palate of dominant critics, and perceived consumer preferences, rather than the characteristics of any local *terrior*.

It was at this stage, when a symbiotic relationship was formed between the increasingly dominant multi-grocers and the increasingly industrial producers. National advertising and brand building required large volumes of faultless, homogenous and consistent wines, which were approachable, fruit forward and affordable. Technological development facilitated this.

¹ Lewin, B. MW (2010) page 187

² Lewin, B. MW (2010) page 193

³ Defined as France, Italy, Germany, Spain and Portugal

⁴ See Appendix I, Chart 1

⁵ E.g. University of Adelaide and the Australian Wine Research Institute

⁶ Defined as USA, Australia, New Zealand, South Africa, Chile and Argentina

⁷ See Appendix I, Chart 1

⁸ Robinson, J. MW (2006) page 276

⁹ Lewin, B. MW (2010) page 194

In the vineyards, that meant development of irrigation systems and chemical pesticides/fungicides, to facilitate large-scale plantations. Better control over the ripening period was achieved through new canopy management system (of which Dr. Richard Smart has been the key innovator¹⁰). Mechanical harvesting and pruning were developed to reduce cost. And Precision Viticulture was also adopted to optimise the management of these estates.

As for the winery¹¹, scale and efficiency was achieved through huge rotory fermentors and horizontal presses. Enzymes and commercial yeasts were used to control extraction and fermentation. Refrigeration was used to deliver fresher aromatics. Established must and wine adjustments (e.g. chaptalization and acidification) were now augmented by spinning cones and reverse-osmosis. Stability of the wine could be achieved with increasingly better filters (e.g. cross-flow), additives and heat treatments. Even colour was added to deliver what is perceived to be the consumer's preference for deeper red wines. Micro-oxygenation could be used to soften tannins, and make wines more fruit forward. Currently, EU law allows some 60 additives in wine¹².

In the UK, the significance of all these developments has been dramatic. ¹³By 2010, the off-trade accounted for 85% of wine sold, and supermarkets accounted for 84% of those sales; 98 million cases were sold in that year, when only 36 million cases were sold in 1991. Within the last 10 years, the "New World" has also overtaken the "Old World" as the main source of imports for the off-trade¹⁴.

Although the wine market has always been fragmented, "now there is polarisation between wine as a commodity to be sold on price, and wine as a luxury"¹⁵. In 2010, "Commodity" wines that retail for between £3.01-5 a 75cl bottle accounted for a significant 71.1% of volume, whereas "Fine" wines that retail for more than £9 only accounted for 1.5% of the volume¹⁶.

As the pace of industrialisation grew it was expected that there will be a backlash. In 1995, Clark Smith, a wine-technologist in California, wrote a provocative article asking, "Does UC Davies have a theory of deliciousness?"¹⁷. His concern was that the now dominant scientific approach to wine production is stripping wine of its soul, with the focus on removing perceived faults, rather than a more holistic exploration of expressiveness and diversity.

The reaction was felt most keenly in the "Fine" end of the market. Starting in the vineyard, and perhaps reflecting a similar movement in the food industry¹⁸, organic

¹⁰ See e.g. Goode, J. (2005) Chapter 10

¹¹ See e.g. Bird, D. MW (2005)

¹² Legeron, I. MW (2011) page 41

¹³ WSET (2011) pp. 22-24

¹⁴ See Appendix I, Chart 2

¹⁵ Rand, M. (2011)

¹⁶ See Appendix I, Chart 3

¹⁷ Smith, C. (1995)

¹⁸ Goode, J. and Harrop, S. MW (2011) page 6

and bio-dynamic practices are increasingly adopted¹⁹, even in important Bordeaux estates like Chateau Climens²⁰ and Chateau Pontet-Canet²¹. At Pontet-Canet, they have even stopped using the ubiquitous tractors and have gone back to the horse-drawn plough²². Although claims of better expressiveness and quality through these changes are difficult to establish definitively, the investments have been considerable.

It is also development in the winery - the "Natural Wine" movement, which has really caught the attention of the wine media, and also the broader consumer²³. Although there is no strict definition of what is "Natural", proponents focus on the principal of "minimal intervention" – no additives, no manipulation, no filtration and very limited or no use of sulphur dioxide²⁴. As an example, Tom Shobbbrook²⁵, a "Natural" winemaker, harvests purely by taste, without any Brix readings. And in his winery, he has no laboratory carrying out chemical analysis of the fermenting and maturing wines. This is in stark contrast to most of his neighbours in the Barossa valley in Australia.

The movement has spawn fairs, specialist retailers and wine-bars²⁶, e.g. Terrior and Bar Battu in London. In France, *vin naturel* already has a strong following. Although it is clearly currently a small subset of the wine industry, it would be interesting to see if this quest for authenticity will become increasingly important in the years to come, and will be discussed in Section III.

Section IIa : An example of the impact on Viticulture: Precision Viticulture

Grapegrowers have always known that topography and variable soil characteristics can lead to variation in the productivity of blocks of vines within vineyards. This is particularly important in the "New World", where growth and cultivation of vast areas of new vineyards means there isn't a wealth of centuries-old experience to rely on. Unlike, for example Burgundy, where plots are much smaller, and how to manage variations within plots have been passed down through generations²⁷.

Dr Rob Bramley, a researcher with the Commonwealth Scientific and Industrial Research Organisation, have indicated that an eight to tenfold variation in yield is typical within a single block under uniform management, which equates to a range of between two and 20 tonnes of grapes per hectare. This will lead to a corresponding variation in the quality and characteristic of the grape harvested²⁸.

¹⁹ Cole, K. (2011)

²⁰ Millar, R. (2011)

²¹ Morrison, F. MW (2011)

²² Private visit to Chateau Pontet-Canet, March 2011

²³ See e.g. Eyres, H. (2011)

²⁴ Legeron, I. MW (2011)

²⁵ Private visit in May 2011.

²⁶ Legeron, I. MW (2011)

²⁷ Goode, J. (2005) page 37

²⁸ Hardie, J. (2006) page 58

To address this issue, a relatively recent development in farming, called Precision Viticulture (or “PV”), has increasingly been adopted. The PV approach relies on a range of enabling technologies, which has become increasingly affordable in the last 20 years. This allows for the digital collection and analysis of large amounts of data, relating to vine performance and attributes of individual production areas. Critically, this can be at high spatial resolution. These enablers include Global Positioning Systems (GPS), Geographical Information Systems, yield monitors that are attached to mechanical harvesters, and infrared aerial images that are taken by planes or satellites (remote sensing).

Armed with this information, vineyard managers can have a much more precise zonal map of their estate, and can adopt more targeted management. For example, using yield monitors and GPS, it is possible to map the yield variation in a vineyard. This pattern of spatial variation in performance tends to be constant through different vintage years.

One of the main benefits of this approach is selective harvesting - the split picking of fruit according to different yield/quality criteria. An example of this was observed at Vasse Felix in Margaret River. Instead of consigning all of the fruit from a particular block of Cabernet Sauvignon to a product with a retail value of AU\$19 a bottle, the winery was able to allocate the fruit from about half the block to a product worth AU\$30 a bottle²⁹.

In another example, the vineyard manager at Evans and Tate has identified different zones within their vineyards of varying yield and vine vigour. By picking on different dates, they can optimise the quality of the grape for each zone, and increased their gross return from 11,091 AU\$/ha to 13,468 AU\$/ha³⁰.

But the use of PV is not confined to selective harvesting. Another benefit of adopting PV and targeted management is that inputs to the vineyard (water, fertilisers, labour and machinery for pruning and crop thinning) can be more efficiently and precisely applied. In an environment where these input costs are rising³¹, and where the market continues to demand low price points, this is crucial for the financial sustainability of producers.

Another area of development is the use of PV for sophisticated experiments. One of the main aims of viticulture is to water-stress the vines, at the right time, to improve fruit quality. The Warwick estate in Stellenbosch has been using remote sensing to produce and cross reference maps of vine vigour and water-stress levels of their estate, to fine-tune this process³².

Not surprisingly, the early adopters of PV are the “New World” powerhouses Australia and California. But South Africa is not far behind, and estates in Chile and New Zealand are also now adopting it³³. In the next International Cool Climate

²⁹ Proffitt, T. and Pearse, B. (2004) page 41

³⁰ Proffitt, T. and Pearse, B. (2004) page 43

³¹ Proffitt, T. and Winter, E. (2008)

³² Goode, J. (2005) page 39

³³ Goode, J. (2005) page 38

Symposium, which will be held in Tasmania, a session will be devoted to the discussion of this topic³⁴.

Section IIb : An example of the impact on Winemaking: Micro-Oxygenation

In the early 1990s Patrick Ducournau, a winemaker in Madiran, was trying to smooth out the harsh tannins in his Tannat wines. Experimenting with different ways of using oxygen, he developed the Micro-Oxygenation process ("MOX", also known by the French term *microbullage*)³⁵. Although it is currently mainly used for a wide range of tannic red wines, there is still a lot of research into the process, and work has also been done on wines made from Chardonnay and Sauvignon Blanc³⁶.

MOX effectively mirrors the oxygenation impact wooden-barrel aging has on wine during *élevage*. Critically, the technology allows the winemaker to have a very precise control on the timing, rate and volume of oxygen injected into the wine, which is not possible with traditional methods.

The micro-oxygenation apparatus consists of a system of chambers and valves connected to a cylinder of oxygen. The gas is delivered into the wine, with a timer controlling the periodic injection of a predetermined dose, and the oxygen is diffused through a porous ceramic stone. Although oxygen-dispersing technologies can also have beneficial effects during fermentation³⁷, the first of two main phases³⁸ of the MOX process is usually applied when alcoholic fermentation is done, but before malolactic fermentation.

This is called the "structuring" phase. The oxygen is thought to oxidize ethanol to acetaldehyde, which encourages the phenolic compounds to polymerize. An important effect is to fix the colour of the wine, when anthocyanins form complexes with the tannin.

After malolactic fermentation, the "harmonisation" stage is carried out, usually with a much smaller volume of oxygen. This phase can last for several months, and is when the wine shed any form of vegetal characteristics, develop aromatic complexity, and the tannins soften.

This is a critical phase, and is where the technology is still very much a tool, and the use of it is an art. Unlike the first phase, where the impact of accidentally excessive use of oxygen could be corrected³⁹, mistakes made in the second phase are usually not reversible. Control and adjustments are done through constantly tasting the wine, and experience of the winemaker is important. In this phase, the technology can be used not just in tanks, but in barrels too, giving the winemaker an extra dimension of control over traditional barrel aging.

³⁴ See <http://www.winetasmania.com.au/iccs/program>

³⁵ Goode, J. (2005) pp. 97-100

³⁶ Rieger, T. (2000) page 86

³⁷ Robinson, J. (2006) pp. 442-443

³⁸ Bird, D. MW (2005) page 38

³⁹ Goode, J. (2005) page 100

The most obvious advantage of this technology is potentially lower costs for the winemaker. With the use of stainless steel tanks, MOX and oak staves or chips, producers have an efficient alternative to the more expensive use of oak barrels – especially for large volume production of more commercial wines.

There are other benefits that have been observed. MOX is also thought to help remove “green tannins” of lesser quality or under-ripe fruit. The precision with which oxygen can be injected also provides winemakers with a better handle on the balance between oxidative and reductive winemaking. And finally, it has also been shown to help produce big, rich, red wines that remain relatively supple, a style that has been fashionable in recent years.

Although the scientific analysis of the interaction of oxygen and wine is still being studied, the practical effects of this technology are already observed to be useful, and the method has been widely adopted.

The influential consultant oenologist Michel Rolland is an advocate⁴⁰, and in France, it is thought that at least 2,500 units are being used, especially in Bordeaux, and includes important wineries, like Chateau Canon La Gaffelière in St. Emilion⁴¹.

Clark Smith also estimates that 80 out of the 120 Chilean wineries, and all of the producers in the Central Valley of California, are users of this technology. It is actively discussed in Australia, and the American winemaker Randall Graham is also a huge advocate. He believes that one day this technology will be seen to be as standard as temperature control in fermentation⁴².

Section III : Conclusion - The Next 20 Years

Science and technology has played a pivotal role in the development of the wine industry in the last 50 years. It was the driving force in the industrialization of wine production and has given winemakers the tools to deliver more consistent results, and at an attractive price point for the development of the market for new consumers.

Although there is now considerable media attention on the move to a more artisan, less technologically dependent, “minimal intervention” approach to wine production, it is likely to continue to only affect the “Fine”, premium end of the market. It will be difficult to adopt this approach, deliver at the “Commodity” price points and volumes, and be financially sustainable⁴³. As Jancis Robinson notes “... fine wine production is at a crossroads between authentic and over-manipulated. But to call for all of the most commercial, inexpensive wine to be made in a more natural, terroir-driven manner is surely whistling in the wind.”⁴⁴

⁴⁰ Cutler, L. (2009)

⁴¹ Robinson, J. (2006) page 443

⁴² Goode, J. (2005) page 98 and 100

⁴³ See e.g. Lapsley, J. (1995)

⁴⁴ Robinson, J. MW (2011)

For the industrial production of wine, there are potential areas where there can be further significant developments. The first is to gain a more precise understanding of the basic biology of human perception and flavour preferences for wine⁴⁵. For other beverage industries, consumer taste-trials are used to fine tune flavour components. But given the inherent complexity and range, this is still rarely systematically done for wine. Consumer olfactory profiling might become common in the future and used to guide production decisions as well as marketing of wines.

Another area for potential development is right at the end of the wine-production process – closure and packaging. The cork versus screw-cap debate is well established⁴⁶. But other forms of technically and environmentally sensible packaging may play an increasingly important role too, as consumer stigma of what is unsophisticated wane⁴⁷.

Ultimately, the biggest challenge to wine industry for the next 20 years, could well be Climate Change⁴⁸. Although both viticulture and winemaking technologies could mitigate some these trends (e.g. better canopy management and irrigation through PV, use of Genetically Modified clones, reverse-osmosis to adjust alcohol levels), existing vineyard areas could likely have to be re-planted with different varieties, or new cooler areas may have to be found.

Therefore to avoid significant disruption to the wine industry, perhaps the role of science and technology is no longer confined to what is directly relevant to the wine industry⁴⁹. But it is about a holistic, global approach to sustainability and alternative energy, and much broader efforts at understanding and potentially mitigating Climate Change.

⁴⁵ Bisson, L.F. and Waterhouse A.L. et al. (2002) page 699

⁴⁶ E.g. Parker, R.M. Jr. (2011) and Goode, J. (2005) Chapter 19

⁴⁷ E.g. Asimov, E. (2011)

⁴⁸ Allen, M. (2010) Chapter 1

⁴⁹ Faris, S. and Penedes, V. del (2011) page 42

Appendix II : Table of Science and Technological Milestones in Wine since the 1960s⁵⁴

| Date or Time Period | Event |
|---------------------|--|
| 1960 | Development of first membranes for reverse osmosis |
| 1960 | Introduction of balanced pruning |
| 1960 | The concept of a horizontal drum pressed was patented |
| 1960s | Commercial use of growth regulators |
| 1960s | Continuous improvement of refrigerated stainless steel fermentors |
| 1960s | Development of high-level grafting techniques for top-working |
| 1960s | Development of the first vertical stroke action mechanical harvesters |
| 1960s | Elucidation of canopy management principles |
| 1960s | Indicator vines used for indexing of grapevine viruses |
| 1961 | First continuous centrifuge |
| 1961 | Introduction of broad-spectrum fungicides for powdery mildew control |
| 1962 | First 'Potter' fermenters introduced |
| 1962 | First Botrytis sweet Semillon made |
| 1962 | Importation of vine cultivars |
| 1962 | Use of temperature controlled wine storage facility |
| 1964 | Further understanding of phenolic composition of grapes and wine |
| 1964 | Stainless steel fermenters introduced |
| 1965 | Application of bag-in-box packaging of wine |
| 1965 | Development of metal twist-off bottle closures |
| 1965 | Introduction of automated remuage for sparkling wine production |
| 1965 | Introduction of first commercial active dry wine yeast starter cultures |
| 1966 | Establishment of the complete genetic code |
| 1966 | First new varieties brought into South Australia |
| 1966 | New analytical method for the isolation of wine tannins |
| 1967 | First use of sprinklers for frost control |
| 1967 | Flow-tap for bag-in-box packaging patented |
| 1968 | The beginning of the development of salt-tolerant rootstocks |
| 1969 | Dried yeast introduced |
| 1969 | First machine harvester brought to Australia |
| 1970s | Canopy management expanded across a range of climates |
| 1970s | Drip irrigation widely adopted in Australia |
| 1970s | Emergence of minimal pruning |
| 1970s | Further improvements in mechanical harvesting technology |
| 1970s | Importance of pH in red winemaking |
| 1970s | Improvements in mechanical harvesting technology |
| 1970s | Lyre trellis system developed |
| 1970s | Selection and comparison of <i>Vitis vinifera</i> clones became standard practice in Australia |
| 1970s | Stelvin sealed wines introduced into the Australian market |
| 1970s | Understanding of fundamental grapevine biology improved |
| 1972 | Agglomerate corks |
| 1972 | Development of the Potter drainer and fermentor |
| 1972 | Import of first mechanical harvester in Australia and rapid uptake of mechanisation |

⁵⁴ Source: http://www.winehistory.com.au/wiki/Wine_History, a website managed by the Australian Wine Research Institute

| Date or Time Period | Event |
|---------------------|---|
| 1972 | Rotary drum vacuum filter developed |
| 1973 | Introduction of new fungicides for disease control in vineyards |
| 1973 | Rotary fermentors developed |
| 1973 | Spread of grapevine yellows elucidated |
| 1973 | The first cloning experiments with recombinant DNA |
| 1974 | The potent flavour compound damascenone identified in grapes |
| 1975 | Flavour chemistry of Muscat varieties understood |
| 1975 | Mechanical pruning of grapevines |
| 1975 | Methoxypyrazines first identified in grapes |
| 1976 | The first use of NIR for alcohol measurements |
| 1977 | Chemical age index for wine published |
| 1978 | Continuous screw press patented |
| 1978 | First transformation of yeast with cloned DNA |
| 1978 | Infrared aerial photography used for phylloxera detection ⁵⁵ |
| 1979 | Link between H ₂ S production and must nitrogen content revealed |
| 1980 | Climatic classifications published |
| 1980 | Foamed thermoplastic resin cork patented |
| 1980s | A new biotype of phylloxera kills grafted vines |
| 1980s | Development of regulated deficit irrigation strategies |
| 1980s | Development of the Te-Kauwahata twin-tier and Scott-Henry training systems |
| 1980s | First DNA techniques for reliable wine yeast strain identification |
| 1980s | First hybrid rootstocks released |
| 1980s | Further development of mechanical pruning systems |
| 1980s | Interactive physiological effect of rootstocks on fruit composition |
| 1980s | Mechanisation of leaf removal, shoot positioning and lifting of foliage wires |
| 1980s | Minimal pruning shown to be valid in cool climates |
| 1980s | Relationship between pH and SO ₂ |
| 1980s | Release of improved French hybrid varieties |
| 1980s | Research on the effect of harvesters on the dispersal and spread of crawlers |
| 1980s | Research on the effect of mechanised crop thinning, pruning and harvesting |
| 1980s | Role of grape derived precursors in releasing monoterpenes recognised |
| 1980s | Rootstock resistant to all phylloxera biotypes released |
| 1980s | Screw cap wines largely removed from the Australian market |
| 1981 | Continuous starter culture production |
| 1981 | Patent for diaphragm press filed |
| 1982 | Cork taint |
| 1983 | First use of HCN as dormancy breaker for improved budburst |
| 1984 | Wine aroma wheel developed |
| 1984 | Yellow speckle viroid detected in grapevine |
| 1985 | A patent filed for the use of reverse osmosis for alcohol reduction |
| 1988 | Foundation of the Australian Vine Improvement Association |
| 1988 | Patent filed for Spinning Cone technology for alcohol removal and aroma capture |
| 1990 | Application of ethephon and paclobutrazol to inhibit vegetative growth |

⁵⁵ Discussed in Section IIa

| Date or Time Period | Event |
|---------------------|---|
| 1990 | First genetically engineered prototype wine yeast |
| 1990s | Australian producers begin to return to the screw cap |
| 1990s | Development of Partial Rootzone Drying (PRD) irrigation |
| 1990s | Development of integrated mechanical pruning and harvesting systems |
| 1990s | Development of mechanical shoot thinning machines |
| 1990s | Development of more precise barrel pruning mechanical systems |
| 1990s | Glycosidase enzymes for liberating bound flavour commercially applied |
| 1990s | Introduction of precision agriculture through remote sensing technologies ⁵⁶ |
| 1990s | New MLF cultures introduced |
| 1990s | Recognition that numerous flavour compounds in wine derive from glycoside precursors |
| 1990s | The Smart-Dyson system for control of bunch exposure developed |
| 1990s | The release broad-spectrum strobilurin fungicides |
| 1991 | Development micro-oxygenation technology ⁵⁷ |
| 1992 | Biologically-effective day degrees adjusted for latitude and daily temperature range |
| 1992 | New hybrid wine yeast strains developed and commercialised |
| 1993 | Commercialisation of the first freeze-dried cultures of malolactic |
| 1993 | DNA fingerprinting used for grape variety identification |
| 1994 | Patent filed for a reverse osmosis process to remove unwanted substances |
| 1995 | Flavour precursor G-G assay developed |
| 1996 | Characterisation of the malolactic enzyme system |
| 1996 | Genetic blueprint of first <i>Saccharomyces cerevisiae</i> revealed |
| 1996 | Method for measuring grape colour developed |
| 1997 | First systematic review of stuck fermentation |
| 1998 | Amino acid precursors in grapes release potent thiol compounds |
| 1999 | Benchmark trial of different bottle closures |
| 2000 | Clare Valley producers bottle 2000 vintage Riesling under screw cap |
| 2000 | First application of consumer acceptance testing in wine research |
| 2000s | Approaches to minimise risks of spoilage by <i>Brettanomyces</i> |
| 2000s | Better understanding of the relationship between tannin and quality |
| 2000s | Commercialisation of a flavour-enhancing mixture of three wine yeasts |
| 2000s | Commercialisation of a wine yeast for the reduction of ethyl carbamate formation |
| 2000s | Commercialisation of wine yeasts for the reduction of H ₂ S |
| 2000s | Commercialisation of malolactic wine yeast |
| 2000s | Commercialisation of new interspecific yeast strains |
| 2000s | Construction of a wine yeast deletion library |
| 2000s | Detection of compounds in smoke affected grapes & wine |
| 2000s | Development of flavour-enhancing wine yeast prototypes |
| 2000s | Development of in-bottle measurement of oxygen |
| 2000s | Development of low-alcohol wine yeast prototypes |
| 2000s | Discovery of thiols in fruity white wines |
| 2000s | Elucidation of relationship between anthocyanin degradation and berry temperature |
| 2000s | Flavour scalping by some bottle closures |

⁵⁶ Discussed in Section IIa

⁵⁷ Discussed in Section IIb

| Date or Time Period | Event |
|---------------------|---|
| 2000s | Links between composition and perceived coarseness in white wines explored |
| 2000s | Malolactic bacteria found to increase oakiness in wine |
| 2000s | Nitrogen management in vineyards and winery for optimal wine quality |
| 2000s | Precision agriculture and remote sensing |
| 2000s | Rapid spectral methods developed to analyse anthocyanins and predict tannin |
| 2000s | Salt-tolerant rootstocks released |
| 2000s | The use of oak chips permitted in the EU |
| 2000s | Tools with which to manage environmental conditions |
| 2000s | Varietal differentiation of grape juices by protein fingerprinting |
| 2005 | Development of a simple tannin assay |
| 2005 | Genetic blueprint of the first malolactic bacterial strain revealed |
| 2007 | Discovery of rotundone in peppery Shiraz |
| 2007 | Genetic blueprint of the first grapevine variety revealed |
| 2008 | Elucidation of relationship between berry and wine quality |
| 2008 | Genetic blueprint of the first wine yeast strain revealed |
| 2009 | Chemical characterisation of wild ferment wines |
| 2009 | Crystal structure for grape haze-forming protein solved |
| 2009 | Discovery of cineole as the cause of minty eucalypt character in red wine |
| 2009 | Expanded consumer preferences studies in emerging markets |
| 2009 | First commercialisation of a true <i>Saccharomyces bayanus</i> yeast for enhancing wine flavour |
| 2009 | Genome sequencing and comparisons among grape varieties and clones |
| 2009 | Genome sequencing and comparisons among malolactic bacteria |
| 2009 | Genome sequencing and comparisons among wine yeasts |
| Beyond 2010 | Automated expert systems |
| Beyond 2010 | Bio-pesticides |
| Beyond 2010 | Continuous systems |
| Beyond 2010 | Genetically improved bacteria, yeasts and grapevines |
| Beyond 2010 | Heat-proof management systems |
| Beyond 2010 | Native plants as cover crops |
| Beyond 2010 | Objective quality measures |
| Beyond 2010 | Objective definitions of wine styles |
| Beyond 2010 | Predictive Biology |
| Beyond 2010 | Real-time yield estimations |
| Beyond 2010 | Real-time, automated irrigation systems |
| Beyond 2010 | Robotic pruners and other devices |
| Beyond 2010 | Selective mechanical harvesters |
| Beyond 2010 | Synthetic Biology |
| Beyond 2010 | 'Omics, bioinformatics and Computational and Systems Biology |

In contrast, the following candidate achieved a fail grade because they did not follow the assignment brief. There is no overview of developments over the last 50 years and they have limited their consideration of developments for the next 20 years to the two examples they have selected rather than taking a broad approach looking at all possible developments. However, on a positive note, they have included as an appendix a record of questions posed to Randall Grahm of Bonny Doon winery. This was good evidence of personal research.

The role of science and technology in wine production

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The role of science and technology in wine production

Introduction

The two areas of technological progress that this essay will focus on are precision viticulture (PV) and Micro-oxygenation (Mox).

Briefly, PV is a technology that is used in a vineyard to calculate various factors affecting the estate, thus allowing the vineyard owner to make an informed decision the best time to act. It was established in the 1990s, however, its recent popularity has been due to its greater affordability (Goode 2005), and this popularity looks set to grow yet further as new techniques (e.g. GPS and aerial photography) makes the technology more accessible. Furthermore, in a world with an ever-increasing population (soon to reach 7 billion according to Murrey (2011)), which is already putting pressure on existing agricultural land, greater efficiencies are needed in the wine production process.

Turning to the second area of technological progress, Mox is a process whereby oxygen is carefully injected into the wine either before or after fermentation. This mimics the effects of slow barrel maturation within a shorter period of time and for less of the long-term cost associated with oak barrels, both of which reduce overall production fees. It also enables more control over the maturation process, when compared to the barrel-aging technique where the vintner will find it harder to monitor the wine developing. Oxygenation has always been a vital part of wine production. Hornsey (2007) highlights a number of key oxygenation stages in traditional winemaking techniques. For example, barrel-aged wine can be from oak staves or, during the racking process, or, when the barrel is being topped up with more wine. All of these stages were well established, long before wine production became the subject of scientific study.

This essay will start by looking into the development of PV and Mox in the wine industry, it will then consider their current usage and the associated benefits, before turning to likely future advances and possible applications.

The role of science and technology in wine production

Background

PV

PV encompasses many modern technologies but in particular global positioning systems (GPS), geographical information systems (GIS), remote sensing (RS) and yield monitoring.

GPS became available in the 1980s as a result of the American military setting up 24 geostationary satellites, allowing the user to identify where they are at all hours of day. Garmin (2011).

RS, according to Google A (2011), is the surveying of the earth by aircraft or satellite. According to Foss (2011) there are two types of RS: Passive Remote Sensing (PMS) and Active Remote Sensing (ARS). PMS equipment, such as video or photographic cameras, monitors natural radiation that is emitted or reflected by the object or surrounding area being observed. Foss (2011) explains that ARS equipment, like radar, differs from PMS by emitting radiation and then detecting and measuring the radiation that is reflected from the target.

GIS is a system for collating and storing the data collected via RS. Once a vineyard has been mapped, the data collected over time can be interrogated to identify variations (such as berry ripeness) across the site, which could then be used to work out, say, when to green harvest.

With the help of GPS, GIS and RS, Goode (2005) suggests PV allows vineyard owners to create specific maps of differing "fields" in the vineyard, enabling owners of substantial estates to prioritise which fields to harvest.

Goode (2005) states that PV is used in different ways in various countries, such as the Californian system, which involves taking a vast number of images at different altitudes, usually by airplane. This system is similar to a Normalised Difference Vegetation Index (NDVI), which uses infra-red pictures, taken from a plane, which can monitor the vigour of vines, indicating green for high vigour areas and red for low vigour areas. Prestige wineries such as Mondavi use the NDVI method.

The Australian system uses a method, according to Goode (2005), of combining yield intake and GPS to create a yield map. They can calculate the yield intake through grape

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harvesters, which is a highly popular approach. A GPS system is attached to the harvester to generate a detailed map of harvest quality and intake.

Both types of PV have positive and negative points. NDVI gives a better overview of the vineyard, however, it does require the cost of renting a plane equipped with the appropriate imaging equipment and pilot trained in their usage to perform the task. The Australian system is a cheaper but slower system. However, both systems appeal to premium and regular quality vineyard owners.

Mox

The Mox process is summarised by Goode (2005) as follows: a porous ceramic stone is placed at the bottom of a tall tank and gradually lets off small oxygen bubbles into the liquid; the height of the tank must be tall enough to allow the oxygen bubbles to be absorbed into the wine before evaporating at the top. The dosage is controlled and can range anywhere from 0.75 to 3 cubic centimetres per litre of wine. Figure 1 below illustrates this.

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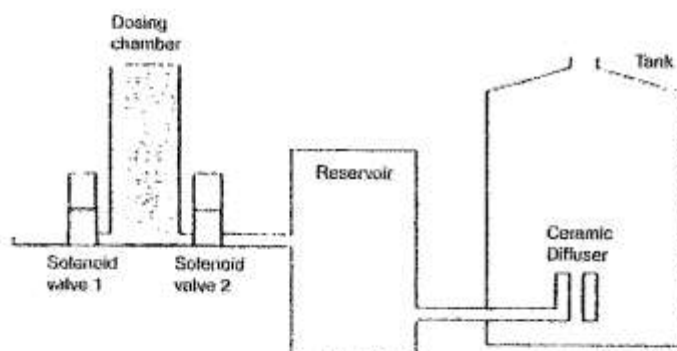


Figure 1 Schematic diagram of micro-oxygenation (MOx) equipment
(Reproduced by kind permission of Dr Thierry Lemaire)

Figure 1 Hornsey (2007)

Hornsey (2007) states that the technology began when Patrick Du Courneau and Thierry Lemaire started to test the theory on the wines of Madiran in southwest France, in an attempt to balance the exceptionally high levels of tannins in the local Tannat grape (other examples of tannic grapes would be Barbera and Malbec). The success of this

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discovery flowered into a commercial venture called 'Oendev' in 1996 and according to Hornsey (2007) Mox is now widely used across France and the United States of America. Grahm (2011) suggests that reason for Mox's use in America and the New World is that the local wine makers love to manage every aspect of wine making and Mox is just another process achieve this. Mox could be thought of as a process to make a wine more uniform.

As Bird (2004) explains, the process normally occurs in multiple treatments over a period of one to three months, during the early stages of fermentation (to help the tannins, colour and anthocyanin develop and to avoid stuck fermentation), to a more prolonged treatment during the maturation period, that can last four to eight months. Typically oxygen is added at a much slower rate in the latter stages of wine-production, in order to allow full absorption.

StaVin (2011) goes onto explain that Mox has only achieved commercial success following the introduction of relatively low-cost, widely available, micro-metering devices, which control the amount of oxygen released into the wine. These devices are essential, if wine makers want to mold the wine to their vision; too much oxygen can lead to oxidation (and a loss of colour, flavour and aroma), while too little can lead to loss of character and wine faults such as a diminution in key aromas and in the development potential of the wine, thus weakening or destroying the potential for the wine to mature in the bottle.

The process results in the polymerisation of tannin into larger molecules, which are perceived on the palate as "softer" or "smoother" Bird (2004), although the wine will often develop further in the bottle.

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Current applications of PV and Mox

Skelton (2007) suggests that most vineyard owners should have digital maps of their vineyards already produced, through the use of satellites. If Skelton (2007) is to be believed, PV is practicable for most vineyard owners and can therefore become a commonly used tool in viticulture. This suggests that the relative start-up cost of PV.

Soil monitoring

Soil monitoring in PV allows for monitoring of soil moisture (Tisseyre (2006)). This is measured by passing a small electric current through the soil between two sensors, establishing the resistance of the soil.

This allows the user to establish a detailed picture of how much water could penetrate the soil and be accessible to each vine. Thus the vineyard owner could increase or reduce the amount of water available to the vine, depending on weather and soil permeability, by placing irrigation facilities at strategic points where water is needed, rather than at equal distances, to allow a balanced water distribution. More accurate data on water supply reduces waste and thus cost. This could dramatically save water use globally, if irrigation instillation companies adopt PV.

Seth (2009) suggests that Australian use of PV can be tailored to each individual vine. This would be suited to larger wine estates, since there will be more variables to deal with and therefore more cost effective. Seth (2009) has noted how smaller wine estates have used this system by being involved in a co-operative, suggesting that PV is available between smaller vineyard owners for sharing. The best option would be NDVI, since at harvest time there would have a higher demand for harvest trackers.

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Grape Yields

Goode (2005) suggests that PV aids vineyard owners in determining optimum ripeness, thus indicating when to pick rows individually, at the ripest possible point, rather than by field, as Robinson (2006) indicated.

PV has been researched by the Bramily (2006). The research has shown that grape yield “varies 8-10 fold”, indicating that efficiency can be gained if the harvest occurs when PV indicates the optimum fruit ripeness.

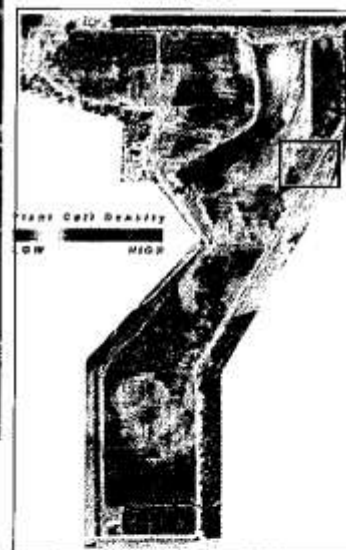
Another advantage is that prices can be fixed, due to more certainty in predicting the yield, and how much resources are needed. This is only achievable if vineyard owners are responsive to PVs recommendations.



Figure 2 Foss (2011) lecture notes

Figure 3 Foss (2011) lecture notes

St Johns Vineyard, Western Australia
February 2003



Quality monitoring

Foss (2011) suggests that other advantages include preventing phylloxera from occurring, since PV gives a broader view of vine vigour. Please see figure 3: The majority of the image of the St John Vineyard is green and yellow, suggesting medium vigour, which means that the crop should be harvested before the vines become highly vigorous and more energy put into leaf rather than fruit production.

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Robinson (2006) suggests that PV allows for the vineyard owners to be more precise in the vineyard (block by block rather than field by field), through organising the data received into rows (as shown in figure 2).

At the same time PV can easily identify areas of low vigour or concern. This would be useful to vineyard owners who have large areas of land under vine, by reducing the time, to detect the key signs of phylloxera, at the vine by vine level.

Cellarnotes.net (2009) suggest the quantity of fruit declines each year in phylloxera-infected vines, which means that low vigour areas identified by PV could be used by vineyards owners as an early warning system to identify potential phylloxera vine by vine and quite possibly save the majority of the crop, which is vineyard owner's livelihood. Therefore, while PV is costly in the short-term, it may well yield substantial benefits in the long-term.

Since organic viticulture does not use chemicals in the vineyard Sinclair (2011), which means that the vines are more susceptible to pests, PV could help organic vineyard owners identify pest infections and therefore could be marketed as a yield improver.

Cheaper alternative than traditional methods

Goode (2005) explains that Mox allows the wine maker to emulate oak-ageing in stainless steel tanks. With new oak barrels currently costing over £300 each, even when allowing for bulk discounts, restocking a cellar can prove a pricy exercise. Mox therefore allows the wine maker to save money and can accelerate the oxygenation process of oak-ageing. It is very suitable for small and start-up wineries with low budgets to purchase expensive new equipment and they would benefit from a faster return on their initial investment.

However, Bird (2004) states that the key benefit of Mox is the quality of the results, rather than cost saving, given the expense of the Mox equipment (typically around £600). Phillips (2009) adds that small wineries may still struggle to produce reasonably priced wines using this technique due to the initial expense, although he does not consider the quick returns that will be gained from the wine being drunk younger. In summary, Mox

The role of science and technology in wine production

seems to be more suited to bigger wineries that tend to have greater financial backing and are looking to produce a large quantity of wine with a consistent character.

Grahm (2011) argues that Mox's main failing is that it cannot match the flavour uptake of barrel-aging, as it does not allow the equivalent level of oxygenation due to the oak barrels' bigger surface area. In summary, although Mox can provide financial gains, the character of the oak and oxygen interaction imparted in barrel aging are lost.

Softer tannins

Goode (2005) suggests Mox, coupled with oak chips, enables the tannins to integrate well, allowing for normally tannic wines to be appreciated by a wider audience.

The Mox is monitored through tasting. However, if the Mox oxygenation is not well managed then Easton (2011) suggests that the fruit flavours can be dismissed from the wine and the acidity can become unbalanced. These problems will only be noticed six months later, leaving little room for error.

Robinson (2006) also mentions that Mox reduces any vegetable aroma. As StaVin (2011) explains the Mox dulls two components in the grape: sulphides (which leads to leafy aromas) and hexenols (which are often attributed to asparagus flavours). Grahm (2011) suggests that this green character is more common in Old World countries, and this could be because Mox has achieved such dominance in the New World and removed any green character New World wines might have had. StaVin (2011) suggests that the tannins form a different compound structure due to the interaction of oak chips and oxygen. This implies that Mox is more effective at masking the green flavours in wine compared to oak-aging. Otherwise aggressively tannic or the green flavoured wines can therefore be marketed more successfully if subjected to the Mox process, and then drunk at an earlier stage due to the calming of the tannins. This may appeal to other consumers who are not keen on tannic wines.

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Future

Population increase

Goode (2005) suggests that PV could become useful in the fight against global warming, by reducing water and energy wastage through better monitoring of the vines. High yields and quality grapes can be obtained through the use of PV (CSIRO (2006)), which will help the ever increasing demand for Bordeaux wines from China, which is expected to rise by 600,000 hectolitres per year over the next 5-8 years (Schmitt (2011)). To put this in perspective, Bordeaux currently produces 5-6 million hectolitres annually. Both premium and bulk producers should use PV to maximise their output and to capitalise on this rising demand. PV can also be used, as Foss (2011) suggests, to identify new areas of possible vine growth, which were previously thought unviable. This will be of increasing importance because the ever-rising human population (Sisay (2011)) will put pressure on agricultural land and non-essential products such as wine could be forced to move.

Unproven science

As Goode (2005) suggests, the scientific proof behind Mox is still not completely sound. This is because Mox is a relatively new discovery and, per Work (2007), the only method currently available to monitor its effects on wine is through regular tasting. Mox is clearly popular with the result that many New World producers such as Lindeman's Winery in Australia (Easton (2009)) or Bonny Doon in California (Grahm (2011)) have adopted it enthusiastically. This was seen in the film, *Mondovino*, where a well-known oenologist, Michel Rolland, was seen clearly supporting Mox. Later Rolland adamantly denied this and stated Mox was only one method of creating expressive wines in bulk. Gaier (2009) says Mox is widely used in Bordeaux to promote high sales and possibly imitate well-known chateaux-produced wines from the local area. This shows that a well-known science authority in France embraces Mox process. *Terroir France* (2011) suggests the Mox is accepted but not clearly understood, since tasting is still needed to monitor the process. It is popular around the world and was officially authorised by the EU in 1996 (Robinson (2005)). Yet despite the belief in Mox, there is still no comprehensive scientific explanation for the end result. However, science must be involved since there is

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a noticeable chemical change in the anthocyanin and tannic compounds found in the grape (StaVin (2009)).

There are many commentators like Hornsey (2007) who suggest that oxygen changes polyphenolic structure of the wine, making it 'smoother' and 'softer' on the palate.

The after effects of Mox are more widely understood than the scientific factors involved. A more rigorous study of Mox is required to really understand the reaction that takes place.

Conclusion and personal commentary

Mox

Mox softens the tannins and can provide financial advantages over aging in oak barrels. However, as Grahm suggests, it is best-suited to larger winery owners due to the cost and its suitability to large steel tanks.

Mox's popularity looks set to grow due to its substantial benefits but more work is needed to fully understand the science behind this technique. In the meantime, regulation needs to be put in place to prevent the very real risk of Mox being misapplied, which could tarnish what is an otherwise very effective technique. Further research on an oxygenation device that would react to the amount of oxygen being absorbed by the wine in a similar way to a thermostat, would also mitigate the risks of human error that the technique is currently prone to.

PV-

PV provides a number of benefits beyond assessing the yield output, including monitoring pest problems and allowing for more efficient irrigation techniques. Like Mox, PV already has already achieved great popularity due to ease with which it can be applied to wine production, even more so in the case of PV since much of the equipment (like mechanical harvesters) is commonplace in the most vineyards. Where PV will excel in the future is maximising output and minimising wastage. However, PV ought to be

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endorsed and advertised by either leading wine authorities or by governments if it is going to be applied more widely and these aspects are to be fully exploited.

The role of science and technology in wine production

Appendices

Randall Grahm of Bonny Doon Wine brand, opinion to questions on MOX

1. Do you use Micro Oxygenation?

We do use MOX on some of our wines – larger lot wines in particular and on some highly tannic wines that may benefit from it. Wines that are in some sense overly “green” (a result of incomplete maturation of the seeds) may benefit greatly from MOX, though this generally is not an issue in California. Wines that have to be aged for a length of time in a large stainless steel container also benefit considerably from MOX.

2. If so, what are your reasons for using it?

MOX is a very powerful tool that if used carefully and appropriately can be extremely helpful. If it is used with an incomplete understanding, it can likewise eviscerate a wine or wipe out a fair bit of its distinctiveness. It is a bit counterintuitive, but depending on how it is used, the use of MOX can shorten or lengthen a wine's lifespan, and either enhance or deplete its qi (life-force), or ability to tolerate additional oxygenation. We generally prefer to use MOX at the end of fermentation, while the wine is still on the skins. This seems to be the most benign use of MOX and generally does not threaten the longevity of the wine.

3. How does Micro ox compare to barrel ageing?

It accomplishes some things analogous to barrel ageing, but also doesn't address some of the things that barrel ageing does. While you can get a comparable level of oxygen uptake with MOX compared to barrel ageing (1 ml/l/mo.), **MOX does not address the question of the uptake of flavour components** from the woods and some other aspects of barrel ageing, viz. the surface area provided for the absorption of lees into the wine.

4. Do you think that Micro Oxygenation is becoming more popular with winemakers?

Honestly, I don't know, but as I said, in the New World, under ripe tannins is generally not a big issue. The New World loves the aspect of control in its winemaking and MOX is a powerful technology that allows a great degree of control.

5. Do you see public still wanting a less tannic style wine if so do you see Micro Oxygenation becoming a viable Solution?

Certainly the New World wine drinker favours a less tannic style, though in accuracy, you wouldn't say less tannic, but rather "softer tannins," something that MOX is able to help achieve. But, as I said, its effects are generally way more dramatic in the old world, where winemakers are sometimes faced with wines that would otherwise be utterly green, vegetal, harsh and unpalatable.

6. Do you see Micro Oxygenation as a science or as a technology?

A bit of a science, but really more of an art. To understand it thoroughly and use it effectively is really an art in the same way that surgery is as much art as science.

7. Do any improvements need to be made around Micro Oxygenation?

I knew Patrick Ducourneau when he was first formulating his ideas about MOX. I’ve not followed developments in recent years, but something like a fully automated system that gradually adjusts oxygen rates based on an oxygen detection electrode would be very cool.

8. Do you see a future for Micro Oxygenation? If so where?

MOX may well have been sinisterly portrayed in Mondo Vino, but I believe that if it is used intelligently it is a powerful and useful technology and a great tool in a winemaker’s arsenal. Certainly greatest application for MOX is in large facilities, especially where wines are being fermented and stored in large vats. MOX can help get a favourable tannin extraction w/ extended macerations as well as be helpful in avoiding reductive issues when wines are held in large tanks with lots of head pressure and lack of oxygen exchange.

April 2012

| | |
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| The presentation and packaging of wine | |
| <p>Required content and suggested approach Wine is part of the branded consumer market, where presentation is key, and some consumers are more interested in the look and feel of the bottle than in the contents. Of course, bottles are not the only container used to present wine to the consumer – bag-in-box, tetra pack and cans all have a part to play. As far as labelling and packaging are concerned, they serve many purposes – aesthetic, functional and legal necessity to name a few. Some people believe a well designed label will help sell a mediocre wine, whilst an exceptional wine may be overlooked because it fails to stand out visually.</p> | |
| <i>Answers: 370</i> | <i>Passes: 332 (90%)</i> |

This was a very straight forward assignment and the majority of candidates (46%) achieved a merit grade as a result. Those who did less well, often failed to follow instructions carefully enough. In the first section, candidates were asked to list the components of a bottle or other container that can be used to communicate visually with the consumer. This section only accounted for 5% of the marks and therefore required little more than the “list” referred to. Yet a number of candidates wrote at

length about the various components, in most instances at the expense of later sections that carried more weighting, for example the case study of two labels evaluating the concept of good and bad packaging which accounted for 40% of the marks. This more important section was often superficial, simply describing the packaging concerned rather than evaluating the effectiveness of it.

The following script is a good example of one that does exactly what the candidate brief demanded. It was very nicely presented with colour photographs of the products discussed, although the black and white reproduction below does not do this justice.

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Introduction

Over the last decade very strong brands have stood out on the supermarkets shelves thanks to their ground-breaking packaging backed by successful marketing campaigns notably in the United States and Australia where some wines have turned into “institutionalized brands” (Barefoot, Yellow Tail...). The price may remain the first thing a customer looks at, but it seems that presentation and packaging form crucial elements in the decision making process. Indeed, most of wine consumers buy their wines from supermarkets or large liquors stores where the choices are ubiquitous: “*With over 650 wines, you really are spoilt at Sainsbury*” their website proudly states.

Consequently, making a good product is no longer enough and knowing how to present it has become essential to be able to sell it. The need to differentiate from the neighbours on the shelves has never been so important.

Indeed, much can be communicated visually to consumers through the packaging in order to present the wine, tell consumers a story and eventually their trust:

- The choice of the **type of packaging** (glass bottles, TetraPak, bag in Boxes or even cans) is intrinsically the first way to communicate and often suggests the range of quality of the product; outer packages also speaks volumes on the quality of wines (9L wooden case associated to premium wines for examples)
- **The attributes of the packaging**: its colour (often an indication of the colour of wine itself), the shape (often associated to specific regions as the “clavelin” in Jura), their size (half bottles, Magnums often inferring high quality, 3L or 5L Bag in Box), their weight (low carbon foot print bottles will be seen as eco-friendly)
- **The type of closure** will also be an important choice to communicate visually: screw caps are often associated to easy drinking, youthful wines whereas cork will be associated with more traditional ones.
- **The labels** on the packaging (front labels and often back labels, neck labels) are used to provide written information to consumers, often display brand names and/or logos that find echoes in consumers' minds. As recently shown, labels can also refer consumers to producers websites through scan codes systems thus multiplying tenfold the information available to consumers ...
- **Special treatments of the bottles**: screen printing, embossing (like on Cotes du Rhone bottles) will also be considered by the consumers and be associated with quality levels
- Addition of “**goodies**” on the bottles will also be a way to communicate visually: signs of recognition (medals won in competitions on stickers, good notes by Parker), emblems of the brand fastened to the bottle (like the small plastic bull tied to this assessment and found on a Torres Sangre De Toro bottle), a corkscrew tied on the neck at the time of a marketing campaign...

After analysing what type of information can be found on the labels, we will study the effectiveness of labelling through a case study on two French wines.

INFORMATION CONTAINED IN LABELS

The rapid growth in wine consumption, especially in countries where it has not been a tradition has led to the consumers wanting to know more about what they are drinking. Where there is often little or no knowledgeable assistance available **the label is often the only tool that a consumer has for evaluating a wine before purchasing it**. Producers have had no choice but to use labels and the other attributes of the bottle to communicate in order to create a unique identity for their products and strengthen their brands. Over the past few years there have been two moves which have led to more information contained in labels: one led by the authorities(A) and one led by the consumers' needs(B).

C) What must be expressed

The increasing trade has meant that the authorities have sought greater protection for consumers: labelling practices are nowadays strictly regulated by regional, states and local regulations. If not completely harmonized throughout the world, legal information required on the labels are often the same from one country to another. We will especially focus on EU legislation which is probably the most newly revised and successfully completed, as a large proportion of the wines are produced and consumed in EU.

Origins and quality concerns have first been tackled by labelling laws; for this purpose, EU regulations distinguish two classes of wines:

- Wines with Geographical Indication (GI) divided into two groups: wines with protected designation of origin (PDO) and wines with protected geographical indication (PGI). EU labelling regulations complete states' one so that eventually labels of such wines **MUST** state: the **area of production** (whether AOC, DO, DOC, vin de pays, IGT), the category in the country law (Reserva, Grand Cru Classé), the **country of origin**, the **name and address of the producer** and bottler, the alcohol content by volume at 20°C, the volume content and "e" mark. **A grape variety** can be mentioned on the label, only if the wine contains 85% of that variety for a wine produced in EU or 100% for most of non EU countries except for Australia, NZ, Chile and Argentina which benefit from derogations.
- Wines without IG: since the new regulation **vintage** and **grape varieties** can be mentioned on the labels.

Health concerns have also greatly influenced the labelling regulations: including **alcohol levels** is mandatory as well as the **pictogram** remembering the interdiction to drink during **pregnancy** but also the fact that the wines **contains sulphites** if the levels are over a certain limit.

Within EU framework each label must also have a lot marker (coded series or batch number) so that consumers can trace the faulty batch in case of complaint.

D) What can be expressed and how

Looking at the mushrooming “label focused” design industry, there seems to be clear “label centric” behaviours from consumers “The wine industry is among the most packaging-dependent there is. Anywhere from half to more than two-thirds of buying decision are based on the label”¹ an American wine label designer, sums up. The label aims to influence purchase decisions, build trust, generate brand awareness, create brand equity and encourage repeat purchase. Moreover, what will be pushed forward on labels depends very much of the targeted consumers; hence, producers will be likely to fine-tune the presentation and packaging of their wines. For example, a survey carried out by Wine Intelligence in 2011 showed that UK consumers granted as much importance to the mention of the grape variety on the labels as to promotional offers². They also recently conducted a study on UK and US consumers to assess the general meaning and value placed on certain style of wine labels. Richard Halstead, CEO of Wine Intelligence, explains: “Amid a wide range of choice, consumers are looking for shortcuts_ “heuristics” to use he behaviourist’s phrase_ to get where they want to go”.³

These “shortcuts” are cues to buyers and finally make the brand identity:

- “Rational” shortcuts (i.e. Text) :
 - o Basically, brand names and “mottos” displayed on front labels directly make consumers enter a familiar universe.
 - o An appellation that is a full-fledged brand (as Champagne) or other mentions (as “Cru Bourgeois” or “Reserva”) that obviously suggest quality.
 - o Miniature essays on the back labels about the origin of wines, the story of the family behind the wines or a brief speech about how it was made and with what it should be drunk are used to
 - o A Grape variety on the front label in an educational perspective
 - o Parker notes on the neck label / medals won in competitions enhance the quality perceived
 - o Special pictograms as the “bio” or organic certifications/pictograms, suggest “eco-friendly wines”

- “Emotional” shortcuts (i.e. Designs / Symbols):
 - o Basically, logos linked to a brand (yellow tail, barefoot...)
 - o Topography used (big, small, classic...)
 - o Pictures/signs used: pictures of a Chateau (or something that looks like a Chateau) will correspond to “stately wines” in Wine Intelligence classification. A good example of such an emotional shortcut is the Chinese sign carved on

¹ Sarah Nelson, <http://saranelsondesign.com/portfolio/wine-label-design/>

² Sample of 1000 UK consumers regularly buying wine, <http://www.vitisphere.com/breve-58238-Conjoncture-International-UK-cepage-et-prix-a-egalite-en-tete-des-criteres-dachat-de-vin.html>

³ “How do you judge a book then? Consumer’s perception of wine labels”. Richard Halstead, Wine Intelligence

2008 Lafite Rothschild bottles to celebrate the lucky charm 2008 vintage in China

- Colours used : gold and black colours associated to “prestigious wines” (i.e. the label of Chateau Palmer); white or cream backgrounds associated to “classic wines”
- “Fair Trade wines” or “Green bottles” are increasingly popular targeting “ethically minded” customers as the launch in 2012 of the first paper wine bottle onto UK shelves shows.⁴

The goal is to manage to mix these different elements in a clever way to create a “coded-frame” and then the desired effect: an emotional link with customers.

.....

CASE STUDY OF THE EFFECTIVENESS OF LABELING

French wines, revolution VS tradition...

France is well known to be behind with packaging and presentation of wine because most producers as well as most consumers are very traditionalists. I selected two wines from France which I think are good examples of an effective labelling and one that represents bad labelling.

C) “Arrogant Frog” wines : successful packaging

Commented wine(s): Arrogant Frog range–Paul Mas estates. Vin de Pays d’Oc.

The history behind and the universe

Arrogant is an adjective that according to the latest studies best defines the French people. Frog is the nickname given by American and British people to the French because we eat Frog’s legs. The **message** of the “humble winemaker” on the **back label** Jean Claude Mas is clear “I call this wine Arrogant Frog, because in the past, the French have for many years considered non-French wines as inferior to ours. Our myopia has opened the door to New World Wines which are more focused on what consumers like. In the past French winemakers were more focused on what they liked themselves. The result is that consumers have turned to the non-French.” The motto “French old world wine with new world attitude” enhances the open-mindedness of the winemaker and immediately makes the product very nice. This entire story is summed up on the back label very efficiently and finds immediately an echo in consumers’ minds.



A R R O G A N T
FROG

⁴ *Top 10 wine trends of 2012 – part 1 Drink Business 9th January, 2012 by Gabriel Savage*

The reasons that make the packaging a success

On average, 9 millions of bottles of Arrogant Frog are produced and distributed in 30 different foreign countries each year. One key factor of this success is that early customers have clearly been targeted: **medium class Anglo Saxons consumers** (USA, UK and Australia) likely to be tired of French snobbery about wines (prices often too high, lack of simplicity of labels) looking for simple easy drinking wines being unpretentious.

Successful “rational elements” of the packaging

- A **strong duo “brand + logo”** creating a universe: the name of the brand is funny and embodied by a mascot, a frog wearing a typical French hat the “beret”; moreover “the wines with the frog on it” in consumer’s minds. Explanation of the universe on the back label.
- **Touch of French classicism**: traditional glass and Bordeaux-shaped bottle heavier for fuller bodied wines (like SGM blend, Cabernet Sauvignon or even Viognier) lighter for white and rosé wines, backgrounds of the label creamy-white, quite neutral.
- Counterbalanced by “**New World**” touch: Use of screw caps, Clear Indication of the grape variety.



Successful “emotional elements” of the packaging:

- Innovative **use of humour and self-derision** (from a French point of view (!)) and puns on words : the term arrogant is twisted into “elegant” for prestige cuvées (see Appendix 1) ⁵/ the different ranges are named lily pad or ribet relating to frog’s environment / The Shiraz-Viognier blend is artfully named “croak rotie” and the blends are named “Tutti-frutti”.
- A **simple colour code** on the necks: ruby red for Cabernet Merlot/purple red for Syrah / Gold for Viognier / Turquoise for Sauvignon Blanc / black for prestige cuvee...
- **Special design of labels** for special events that make the wines friendlier for immediate consumption: South Africa Soccer Cup, Tour de France, surfing edition label, rugby label. Such occasional labels create unique/rare products that make them even more appealing.

Conclusion for Wine A

With such a wine the consumer knows that he will deal with a fruity, youthful well-made wine, revealing all the aromas expected from the mentioned grape variety. All in all, this wine is efficient because it is not discriminative between wine novices or wine lovers and will please consumers looking for a non-sophisticated wine.

⁵ See Appendix 1

D) Alsace wines, often incomprehensible wines

Commented wine B: Edelzwicker Réserve particulière Albert SCHOECH – Vin d'Alsace AOC.

The history behind and the universe

This wine can be found on the shelves of the major French supermarket chain "E. Leclerc" from the name of its eponymous creator, Edouard Leclerc, who first launched in 1973 the September wine fair that has now become an autumn institution at French supermarkets. E. Leclerc is known to have excellent wine purchasers who dig out very good value for money wines. Also they dare to sell innovative products as they did with the Bag in Boxes in the 80's and with the screw capped bottles in the 90's. Unfortunately there still are on Leclerc's shelves wines that are very badly packaged even if they are likely to be very good value for money. This is the case, I think, of this Alsace wine. No one can expect something of it just by looking at the label.

The reasons that make the packaging a failure

Very few elements are likely to ring a bell in consumer's mind when looking at this bottle:

- The mention "Vin d'Alsace" is the unique obvious clue. At least the consumer knows where the wine comes from.
- The shape of the bottle "the flute" is typical of Alsatian wines but can be mistook for German wine.
- Also, the image on the label depicting a typical Alsatian village may recall something to someone that has ever travelled to Alsace but honestly I find it a little bit "farfetched".

Obvious elements specific to this bottle contribute to make it quite confusing:

- **Too many labels:** the top one, the middle one and the main one at the bottom. On the top label the mention "servir frais" meaning "serve it chilled" is written but cut into two parts by the church on the inset which does not make it very readable and in this case, the mention is meaningless for non-French speaking customer; on the middle label, "Reserve Spéciale" is a denomination that is not commonly seen on Alsace wines labels and that has **no legal meaning**. So it is a bit confusing to dedicate an entire label to something meaningless for novices as well as for educated consumers. On the main label the picture takes a lot of space, which is not necessarily very meaningful.
- **"Edelzwicker"** is a term that indicates a wine made of a blend of Alsatian grape varieties (proportions can change) including entry level grapes as Sylvaner, Chasselas, Pinot Blanc but also noble grapes like Riesling, Pinot Gris and Gewürztraminer for the best...A connoisseur will probably know that this is a high yielding, simple and refreshing wine. A novice can't tell this.



Furthermore, the quality can be from very low to very good depending on the producer. It can be all the more confusing that grape varieties are often displayed on Alsace bottles which is not the case here. So this notion introduces a bit more incomprehension.

- The **green background** of the label does not stand out against the green of the bottle. The colour of the drawing makes the wine look old and worse, **old-fashioned**.
- There is **no clear brand name** that could create an affective link with the consumer and forget the dreadful packaging.

Discriminating elements generally applicable to all Alsace wines (entry level– not the high end):

- Like many Alsatian wines, it is impossible to guess whether the wine will be dry / off dry / sweet as there is plenty of styles in this region.
- The bottle shape needs “radical rethinking”. Some people claim that the current tall bottle shape (known as ‘hock’) is a distinctive feature of Alsace wines. *“But to most consumers it spells ‘Germany’, and for the average consumer, Germany is bad”*⁶

Conclusion for wine B

This wine may be very good but the packaging is not reassuring for consumers. It may work with very traditional local buyers but certainly not with the new French as well as non-French millennium generation. “Some brave action is needed to make Alsace wines relevant to the next generation of wine drinkers. There could be a place for elegantly packaged wines (with no other names on the label other than brand, region and variety), in a Burgundy-shaped bottle, telling the story of Alsace to a new market, and priced just under £10 a bottle”⁷

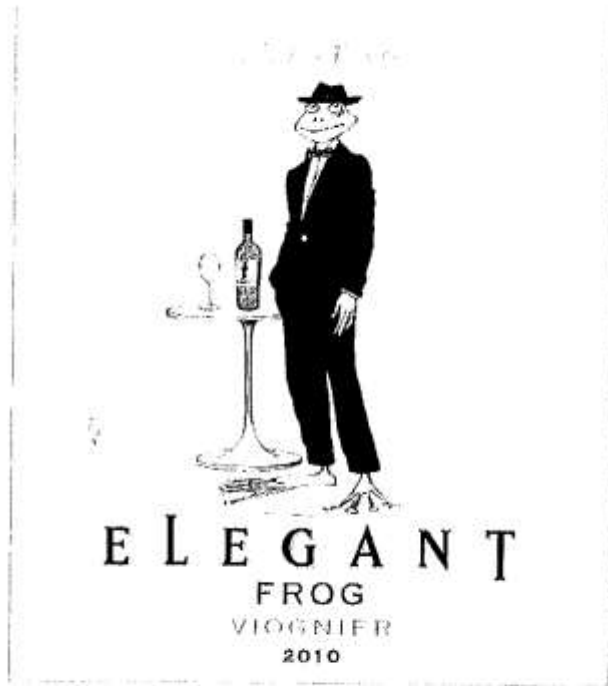
Conclusion

Wine packaging is probably circumscribed by the weight of traditions, especially in old world producing countries. It seems much easier to take the liberty to play on Spirits or Champagne’s image, which are products associated to very special occasions, deserving original packaging and presentation.

Yet wines labels are the mediums which carry brands messages and like any form of communication they need to evolve to remain “fresh” and relevant to the market place.

What is sure is that good packaging will sell a bad wine while bad packaging will leave a great wine on the shelf. It is almost as complex, perhaps, as making the wine itself: nowadays good packaging is just as important as wine quality...if not more so!

Annexe 1



Arrogant wines turned to elegant wines...



The complete range: packaging in harmony with wines inside...

Closed Book Case Study

In comparison to other closed book theory papers, the pass rate for the case study in Unit 1 is high and reflects the fact that candidates go into the examination having already carried out the research required to answer the question. This means when they get to the examination hall and open the paper, they simply need to collect their thoughts and structure their response to address the sub-sections of the question on the examination paper. This is very similar to what is required for the open book coursework assignments, but with the added constraint of working in a timed environment and without access to research sources.

Those who fail generally do so because they do not address the question as set or are too brief in their response.

November 2011

| The importance of generic promotional bodies for the wine industry | |
|---|--------------------------|
| <p>Candidate Case Study Brief:</p> <p>Many wine producing countries have generic promotional bodies. One example is the Deutsches Weininstitut. Part of their “who we are” statement is as follows:</p> <p><i>“The Deutsches Weininstitut (DWI, or German Wine Institute) is the German wine industry’s marketing organization responsible for the generic promotion of the quality and sales of German wine domestically and abroad. At this time, some 40 men and women, under the leadership of the managing director, work in the interest of German wine at the wine institute’s headquarters on Gutenbergplatz in Mainz. In addition, there are more than a dozen “Information Bureaus for German Wine” in the most important export markets, from London to New York to Tokyo.”</i></p> <p>Another example is the Wine Institute of California, which describes its brief as follows:</p> <p><i>“The Wine Institute of California uses funding from the Department of Agriculture in Washington DC, under an agricultural export support programme, to raise the profile and promote the sales of California wine outside the USA. It maintains offices in the major markets of: the UK; Canada; Japan; and mainland Europe, and part-time or PR support in emerging markets such as the Far East.”</i></p> <p>Where a national generic body exists, the size of its budget and the source of that money will affect how it goes about its work. As a result, generic bodies have adopted various tactics in their efforts to promote their wines.</p> <p>There has always been much debate in the wine industry about the importance, or otherwise, of generic promotional bodies. In some cases (e.g. Wine Australia), the national generic promotional body has been thought to have played a significant role in the development of key markets. In other cases (e.g. Italy), there has either been no national generic promotional body or any initiatives that have been taken have been perceived to be largely ineffective.</p> | |
| <i>Answers: 258</i> | <i>Passes: 224 (87%)</i> |

Examination question (all sections compulsory)

- a) Give an overview of the sort of mission statements and key objectives adopted by the various national generic promotional bodies. Describe the activities undertaken by the generic bodies in pursuit of their objectives. (40% weighting)
- b) Where does the money come from to finance generic bodies? Discuss the tensions that this can create. (30% weighting)
- c) How effective do you think national generic promotional bodies are in developing the markets for their country's wines? Do they represent value for money? Suggest ways in which generic bodies might improve their performance. (30% weighting)

The examiner commented that candidates performed very well in the first part of the question. Those who had digested the briefing document well, realised the importance of looking at the websites of various generic bodies and simply needed to duplicate what they had read. However, responses in section b) were much more patchy and the speculative nature of section c) was far more challenging for a number of candidates. As a result, marks for this case study varied enormously from a high of 91% to a low of 10%.

The following candidate answered all sections well, with good use of statistics in sections b) and c). Their essay is well written with very good use of examples throughout. It was not the highest scoring script, but nevertheless was one of the 82 candidates who achieved a Distinction grade.

a) Mission Statements & Key Objectives of Generic Promotional Bodies.

Most generic bodies carry out a similar set of activities but what is striking when you compare their mission statements & objectives is the degree of changing approach which can range from a central focus to quality & sales. Common themes include tourism, quality & education but many have changed over the years to adapt to business demands / changing market place or influenced by their major funding sources.

Germany for example highlights quality & sales within its mission statement but looking further into this they really excel in the areas of tourism, linking closely with Germany tourism boards to promote the country overall. California too wants to raise the profile & sales outside the USA, despite this statement few consumers are aware or are connected to what California wine represents as their approach has largely been focussed on grape variety & big brands presence like Cablot Merlot. They again are great in tourism being second only to Disney in the US with 14.8 million visitors a year.

Australia has changed its strategy from having been highly successful 10 years ago promoting grape varieties & being subject price / deep price promotions to now focussing on premium wines & regions. The IVDP in Portugal focusses heavily on control of production, labelling taxes.

Chile is very impressive having created 'Brand Chile' & protecting price by avoiding promotions below US\$12. At the core of their strategy is regionality - creating a sense of place, ~~per~~ personality 'brand Chile' & ~~activities~~ individuality through the sheer diversity of the region creating unique selling points such as Carmenerre, old vines, Carignan & cool climate Syrah/Pinot Noir.

Activities to support these objectives:

Education features heavily to educate ~~pr~~-trade, press & consumers about the country, regions & grape varieties. Most is fairly academic with fact sheets & websites but countries like Australia have excelled by targeting university students & using online ~~modules~~ learning modules.

Bordeaux has its wine school training trade & courses adapted for consumers.

They all feature heavily in tourism ranging from winery recommendations & routes (eg. Tapas & Sherry route in Jerez) to countries that have really got into it to link with gastronomy (Riga & many tapas events for consumers to experience the wines with food as designed & bring culture in) ~~and~~ Sport such as the rugby world cup & NZ wines or as a country with named cultural cities getting involved eg. Mainz & the Rheinhessen, Porto, Cape Town, Bordeaux.

Some take this further into incentive trips & merchant awards to take key buyers & press out to the regions to learn & experience the wines & country.

All support events from trade events such as Wines from Spain or France Under one roof to smaller events, trade & consumer tastings creating an opportunity to hard sell & talk about wine values.

Bordeaux spends a huge amount of money on advertising, ~~eg~~ with campaigns such as "Everyday Bordeaux" in the UK to promote the value message, ~~away from it~~ with food as the market is so polarised between En Primeur & cheap Bordeaux.

Regions like Spain have created their own awards - New-Wave Spanish Awards to recognise quality & Rioja has benefitted from this with global ~~reg~~ recognition (top 5 recognised & purchased regions in the UK, USA & Australia according to a Wine Intelligence report ~~in~~ ~~the~~ ~~at~~ the LIWF 2011) despite having historically been known for bulk production & still only sits as the #4 producing region in Spain behind Castilla La Mancha, Catalonia & Extremadura. Many of the larger generics are operating like corporations & as such conscious of sustainability & green objectives. Sustainability is core to Chile.

b) funding sources

The funding sources are largely split between government funding from equivalents of ~~DEFRA~~ DEFRA & wine levies. 39% of funding for Wine Australia is from levies paid from sales.

Bordeaux has a large budget of €27.8m globally, of which €21.8m is spent on marketing, €2.5m spent in the UK. Compare this to Burgundy at just €10m or NZ at \$5m & it really dwarfs their funding.

Historically large companies have paved the way for generics to create awareness for the brand & in some cases building an identity for the country. Some would argue the brand Chile really started with Concha y Toro, & Australia with the likes of Penfolds. These investments have helped to gain rapid consumer awareness but with the majority of sales going through the off trade this has led to deep price cuts & countries generics specifically are working hard to protect price, build quality & differentiate themselves.

Where governments play a huge role in the funding, control is an obvious feature with mission statements focused on controlling production levels, labelling regulations, defining the practices allowed & boundaries within the appellations/denominations of origin. In the past this has been critical to move away from bulk wines & promote a more premium approach to wine making. But as the economy is in recession, unemployment is high & euro conversions are threatened in Europe, government funding is being cut. This is highly noticeable across Spain & Portugal with event funding/subsidies being cut & the price of grape spirit rising from €1.80 to €2.00, not only does generic funding get cut but such reductions/price increases will can no longer be absorbed by producers or suppliers & will eventually be seen by the consumer.

~~The larger~~ Where the government is very controlling & or bureaucratic such as Italy it is thought that there is little chance of alignment across the regions & bodies & so a generic body has never really got off the ground to promote the country, the danger being that such control stifles creativity. But then producers such as Antinori, ~~the region~~, styles such as Prosecco, & grape varieties such as Pinot Grigio are all independently building brand awareness for the country & its wines.

Where there has been major investors within a generic body this too creates conflict as they may prefer to promote their own brands rather than the building the country or region. One such example has been said that Gonzalez Byass has a controlling stake in the Sherry Institute but it can be also be argued that through their investment & profile, smaller producers such as Hidalgo can build the niche position creating a unique selling point whilst both are heavily promoting Sherry & embracing a culture with tapas.

c) Effectiveness of generic promotional bodies

The most effective generic promotional bodies are those that can coordinate themselves & create a clear strategy & focus for the country & regions. This could be anything from Bordeaux with huge investments to Spain that has really embraced the country's gastronomy, tourism & culture. Along with Australia, New Zealand & Chile they have really created an identity & coordinated/partnered across regions & wineries. This is evident in ferrer but clearer websites that are carefully targeted to meet their objectives & communicate on different levels for press, trade & consumers. Having said this in a recent wine intelligence report (LINF 2011), in terms of awareness the countries or regions fail to resonate with the consumer. In terms of their choices they pick

- UK
1. Grape var
 2. Price
 3. Recommendation by a friend
 4. Country 59%
 5. ~~Acemo~~ Brand
 6. Region 51%
 7. Recommendation by a shop.

When asked what California/Australia means to them the majority of responses were 'nothing' or perhaps red wine / good wine.

In terms of what consumers buy, across the UK, USA, & Australia Bordeaux & Burgundy featured but surprisingly Rioja & Marlborough kept popping up. In terms of consumption the UK ~~value share~~ volume & value shares are:

| | Vol % | Value % | market share |
|--------------|--------|---------|--------------|
| 1. Australia | 21.83% | 21.8 | |
| 2. USA | 14.4 | 14.3 | |
| 3. France | 12.4 | 14 | |

NZ
 Countries such as Italy & Spain have grown value share at 8%, 7% & 4% respectively so those smaller countries & budgets are working well to differentiate themselves.

In addition to the coordination the best genres appear to be business like with strategy papers & annual reports. Within the trade this communicates a clear message & intention & hopefully demystifies some of the complex messaging for the consumer. For example Germany appears to be quite spread out & as such brand Germany is split between the historical image of cheap Blue Nun & Black Tower to high quality wines in fluted bottles & complicated names.

In terms of improvements it really is key to get the following key messages right:

1. Regionality - create awareness of the region, help people to experience & understand the region, not just the wine but to tell the story of its history, ~~culture~~ culture & gastronomy.
2. Personality - This can be done by making the messaging more personal through winemakers or creating Brand Heroes like New Zealand have done or Brand Chile.
3. Individuality - Regions/producers must have a ~~unique~~ unique selling point. Current trends to promote grape varieties has engaged the consumer initially but then lead to a sense of "me too". A Sauvignon Blanc at £5 could be the same in any region (perceivably).

March 2012

Chablis versus Chardonnay

Wine style in the old world is to a considerable extent defined by quality wine regulations, e.g. AC, DOCG etc. In general, the new world has a much less rigid approach to appellation. New world wine producers are much freer to innovate and react to market trends. It could be said that they rely more heavily on strong brands, varietal familiarity and product innovation than on regional identity, heritage or classification systems. So how important are classification systems and wine regulation to the consumer?

The consumer's purchasing choice is driven by many factors, - label design, price, grape variety, country of origin and so on. Even amongst consumers for whom appellation is an important factor, the concept is often misunderstood. Many wine drinkers associate systems

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| <p>such as Appellation Contrôlée or DOC with a guarantee of absolute quality, and by default assume that a wine that appears to have no classification beyond stating the brand name, grape variety and possibly region of production must in some way be “inferior”.</p> <p>In recent years there has been some evidence of a convergence of old and new world approaches to regulations, with signs of increasing flexibility in the old world and a trend towards the defining of regional identity in certain new world regions.</p> | |
| <p><i>Answers: 225</i></p> | <p><i>Passes: 152 (68%)</i></p> |
| <p>Examination question (all sections compulsory)</p> | |
| <p>a. Why was Europe’s quality wine system created, and what aspects of wine regulation does it regulate? (25% weighting)</p> <p>b. What are the strengths and weaknesses of the quality wine system from the point of view of the producer and consumer? (25% weighting)</p> <p>c. Why has the new world had success with the varietal approach? (25% weighting)</p> <p>d. What can tomorrow’s wine industry learn from these contrasting new and old world approaches, and use going forward? (25% weighting)</p> | |

This was a disappointing pass rate, for an assessment that usually generates better results. Since the subject matter is published ahead of the examination, candidates have time to prepare in advance by researching the topic and digesting the information they have gathered. This therefore means they only have to re-organise this information on the page to address the various sections of the question. A short essay plan always helps in this respect, but far too many candidates seem reluctant to spend any time on this. This often means they end up losing sight of the specific points they should be addressing and they head off in other directions, and do not answer the question in the process. Another common reason for failure is because many candidates simply do not write enough to answer the questions in sufficient detail. In the time available, examiners are looking for around five to six sides of text in average size handwriting. This should be easily achieved, PROVIDED the candidate has prepared well ahead of the exam, doing the necessary research and background reading. However, in addition to these general weaknesses, there was another very noticeable reason why some candidates failed this paper. Many candidates mistakenly assumed this was to be an essay on Chablis and Chardonnay rather than regulation versus “free reign” as explained in the content of the brief and very specifically in the examination questions that make no reference at all to either Chablis or Chardonnay.

Candidates who limited their response only to Chablis and Chardonnay, very often failed as they inevitably addressed very few of the points examiners were looking for. The best of them managed to achieve a basic pass grade provided Chablis and Chardonnay were only used to illustrate the points they made rather than defining the scope of what they covered.

Another common problem was the misconception that “wine systems” were introduced to ensure quality, despite a very strong hint to the contrary in the case study brief.

The following two scripts provide a good contrast between a candidate who has achieved a merit grade and one doing rather better and gaining a distinction.

The first uses Chablis as an example to answer section a) which does work in the way it is presented. There is also reference to discussion with individuals which formed part of this candidate's research into the topic. This is always a good approach, as it shows the candidate is not solely reliant what they have read. Stylistically, it is rather stilted and there is too much focus on the US rather than taking a broader approach in terms of new world countries. This script was marked as a merit grade.

In this paper, I'll discuss Europe's quality wine system, why it was created and what exactly it regulates. I'll discuss the strengths and weaknesses of the quality wine system from producer and consumer points of view. Being in wine sales myself, I had a number of opportunities to speak with wine buyers, consumers and producers while researching this paper. I'll discuss the New World's success with varietal labelling along with what the future wine industry can learn from the differing old and New World approaches. Opinions seem to vary among producers, countries and regions but it was fascinating to be able to conduct the research and apply it here today.

Europe's quality wine system was created to promote quality and define regions and terroirs throughout the wine producing countries. Over the years, many changes have been made, along with additions to DOCG's or AOC's which some feel weren't one for political reasons.

Europe's quality wine system regulates a number of aspects regarding wine production.

Geographical boundaries are strictly controlled. Looking at Chablis for example, in order to produce a Grand Cru wine from Les Clos, then all of your fruit must come from that designated vineyard. Winemakers are not allowed to blend in grapes from other regions or vineyards. The geographical boundaries are based on terrain. The Grand Cru vineyards of Chablis, which are all on a SW facing hill overlooking Chablis, have a calcareous clay and fossilised oyster shell soil called Kimmeridgian Chalk. This soil is deemed superior and has attributes that

contribute to the wine which cannot be found elsewhere. The stately, mineral quality that has been referred to as 'Pierre & Fossil' (Francis Robinson - Oxford Companion)

Varietals are another aspect which is strictly controlled. If a wine is to be labelled "Chablis" it must be produced from 100% Chardonnay. Blending is not permitted. Other varietals can be grown, like Pinot Blanc & Sauvignon Blanc, but if a winemaker chose to use other varietals the wine would have to be declassified to "Bourgogne AC". (Francis Robinson - Oxford Companion)

Alcohol levels are also controlled. Grand Cru Chablis wines must have 11% alcohol, followed by 10.5% for Premier Cru, 10% for Cru, and 9.5% for Petit Chablis. (Robinson, Oxford Companion)

Yields are monitored. For white grapes, like Chablis, the yield is 45 hl/ha. (Robinson - Oxford Companion)

Vineyard practices like irrigation, trellising systems, vine density and pruning are also controlled, along with wine making techniques, i.e. Chaptalization, lees ageing, etc. (Robinson - Oxford Companion)

In speaking with several of my wine buyers from some of LA's larger retailers, like Wine House and Wally's, they feel that the EU's quality wine system is confusing and the average consumer, 90% of their clientele, does not understand it. Unless you are an avid collector, you won't specifically be looking for a wine from "Le Clos".

They feel that for customers aged 50 and older, they will view Chablis as "Carter's" jug wine. They have no idea that Chablis is a region in France and that the varietal is Chardonnay. American consumers want to see the varietal on the label. They

are much more willing to buy a wine if they know what's in it.

My buyers said that while the "Chablis" style is becoming more popular - people are moving away from high alcohol, over-ripe wines. The price is too steep!

Last week I had the pleasure of working with Lorenza Sebastiani, of Castellodi. Aino, and asked her about the quality wine system. She feels it is important and that terroir does matter, but the winemaker also has a huge influence. She never put "Reserva" on her Chianti Classico before, even though it met all of the ageing requirements, because she didn't feel the term meant anything. She said the Chianti producers have come up with tighter controls, so she will put Reserva on the back label of her 08 Chianti.

I read an article from the San Francisco Chronicle and the WineAnorak, and both pieces had similar opinions. While EU regulations define areas of production, they don't necessarily guarantee quality. Some producers are shielded under the "AC" laws and while the "terroir" may be deemed superior, the winemaker may take shortcuts in the production. There is not a governing force large enough to guarantee that every bottle a producer releases is of "AC" quality.

When consumers shop at a retail outlet, there are hundreds of wines and producers side by side. If a first time 'Chablis' purchaser bought a wine from a winemaker lacking integrity, they could be turned off to all Chablis.

Since there are defined 'terroir' characteristics from the different production areas, consumers should be comfortable in selecting a wine and knowing what the basic flavor profile will be.

The old world has really been held back in terms of sales due to not stating the varietal on the label. According to WJE French Revolution ^{by Janice Hurma} new world wine sales rose from 3% of overall market sales to 30% from 1990 to 2008.

The new world has had great success with the varietal approach.

Taking a look at the U.S. market from the Fredrickson Comberg Report from March 2011 focusing on 12 months ending in December 2010, this is what I found.

The U.S. market is dominated by three companies - Gallo, The Wine Group and Constellation Wines. Let's take a closer look at all three.

Gallo was up 6% in 2010 shipping 66.5 million cases. They have 27.5% of the market share in the U.S. Part of this increase was due to diversifying their portfolio. They now have wines being produced in every wine producing country.

Barefoot, one of their key Chardonnay brands, has been very successful. The packaging is bright and colorful, with Chardonnay clearly visible on the label. They just use California as an appellation, not a specific AVA. This brand experienced an increase in sales in 2010.

The Wine Group was up 14% (7.7 million cases) in 2010. They have had tremendous success with their Cupcake label. Again, the packaging is bright, colorful and very feminine with the varietal clearly stated on the label!

Constellation was flat at 1.9 million cases, but they had success with brands like Black Box, Woodbridge Merlot & Cabernet.

French wines did not fare very well in the U.S. market in 2010. While French table wines were up 17% in sales, their value dropped by 15%. French wine imports totaled 7.5 million cases but this is the lowest since 1995. The Louis Jadot brand had the most success, with a 37% sales increase and 16,000 cases shipped.

Chardonnay sales are still #1 in the grocery outlet at 2270. Chardonnay, import and domestic combined, grew by 602,000 cases (47%). Cupcake had the most growth at 76,000 cases.

The top 10 brands in the California market are Sutter Home, Barefoot, Yellow Tail, Merlot-Woodbridge, Francis, Beringer, Ch. St. Michelle, Gallo and Kendall Jackson. All of these brands have been in the market for many years, with consistent packaging and clear varietal positioning. Not too mention the marketing dollars behind the wines. Consumers gravitate towards wines like these because they are familiar and they know what they are buying.

The AVA system in the U.S. is becoming more familiar to the average consumer, although the terms Napa & Sonoma valley still dominate the conversation, but the focus was always on varietal first.

I think tomorrow's wine industry can learn a lot from some of the forward thinking "old world producers". The new "Vin France" labelling term is opening doors and increasing sales for producers using it. They can now varietally label their wines, include a vintage and blend across regions.

Brands like Boisset's French Rabbit line out of the Languedoc is a great example. Not only are they jumping on the "eco-friendly" band wagon with the tetrapak packaging, but the varietals are clearly stated and the packaging is fun, fresh and non-intimidating. Chateau, another brand coming from France, offers bright packaging, featuring a butterfly, and varietals on the label. The old world has terroir down. They understand it and know what the land contributes to the wine. California producers need to learn more about their terroir. There are many winemakers that speak of it and notable differences, but the consumer isn't fully aware yet. In *Wines & Vines*, Clark Smith mentioned the "Blue Book Taste Profile" that is a work in progress. The goal is to

define "taste benchmarks" and "production correlations" for all AVA's in CA.

The quality wine regulations in the old world are very traditional and are meant to protect diversity, history and terroir. They were put in place because they found certain areas in the growing world to have exceptional terroir for specific grapes that could not be matched elsewhere. I find this important and do feel that terroir comes into play, but all wine makers need to adhere to the controls, or there needs to be a bigger and better governing body, or like the old adage says one bad egg will ruin it for everyone.

The New World, which has had incredible success with varietal labeling, needs to work on truly defining their AVA's, giving them a sense of place, and consistency for the consumer.

In contrast, the following candidate achieved a higher mark, putting it in the higher grade banding of distinction. It is well written, all the points made are relevant and valid with good use of examples from many parts of the world.

The Regulation and concept of regional control systems of the Old World (taken to mean Europe) vs the varietal and Scientific approach of the New World (The USA, Chile, Argentina, South Africa, Australia, New Zealand etc) is often argued to be the fundamental ~~difference~~ difference between the two 'worlds'.

Europe's strict quality wine regulation system can trace its origins back to France in the 1800's, a time of large surpluses of wine (not unlike today!) and was an anti-fraud measure against the cross region blending of cheaper grapes being sold as a specific product and furnishing quality.

The original control systems were based solely on geographical delimitation, regions being permitted to produce certain styles of wine: Bordeaux and Burgundy, for example. This was then extended to cover regulate permitted grape varieties (typically those already indigenous to the area) and also such issues as setting maximum yield, pruning and viticultural techniques (The double guyot system of Bordeaux for example) harvesting techniques (hand harvesting for the Champagne Region for example) and also vinification techniques and, in some cases, minimum ageing requirements. All of these measures were intended to control and ensure the provenance and quality of wine types and restrict wine styles to particular areas of the country; there were riots in Paris when it was

determined the Champagne region would be the only region to produce Champagne Sparkling wine in France. The regulations in France are called AOC's and can be seen to be adopted throughout other European Nations such as Portugal and Spain with DOC and Italy with its DOC(G) and Germany with its QBA and Prädikatsweine.

All of these legislations and regulations were intended to distinguish quality wines of a country from that of its table wine, with its generally inferior status.

The strengths of these quality wine systems can be seen in the history and heritage (and possible sense of attaining to quality in the eyes of the consumer) quality AOCs of France such as Bordeaux and its Medoc Subregions, Barolo and Chianti in Italy, now have a long standing history.

If the New World is famous for its Brands and corporations then it can be argued that the European quality wine systems have ~~produced~~ made Regions and appellations into Brands in their own right, easily recognisable to the consumer and associated with a distinct style of wine: Rioja in Spain and Chablis in France, for example. Arguably the ultimate ~~of~~ world Brand is that of Champagne and its large Grand Marqueses such as Moët and Chandon, Veuve Clicquot etc. The Champagne region would not carry the reputation of prestige it would today had it not been for the work of the CIVC, born out of Regulation and appellation, in protecting and promoting the name 'Champagne' as being specific only to this region of France.

So in addition to creating a sense of heritage and

Regions as 'Brands' in the eyes of the consumer, Regulations. The quality wine system has protected the interests of its producers' individuality and building a sense of quality and heritage in the eyes of the consumer. ~~Control A product of~~ Another strength of the quality wine system is the notion of Terroir (the natural environment of a viticultural location) promoted as being responsible for the quality of a wine from a specific Region, unreplicable anywhere else in the world. This has been regularly dismissed by New World producers as a product of both mysticism and marketing by their old world counterparts to protect their industry (it is understandable that the New World producers would be eager to dismiss this, protecting their own industry, originally based on European wine styles without the attention to geographical location).

The Quality wine system can show many weaknesses however: it limits experimentation and innovation with its strict controls, that were typically set around the 'best practices' of the time.

It doesn't guarantee the quality of a wine, less scientific specification and ~~producers~~ ~~do~~ less quality minded producers doing the bare minimum of the legislation.

It can be deemed as inaccessible, elitist to the UK consumer, the labels lacking varieties and any information for the consumer doesn't help a consumer to make an informed choice, it implies or suggests

knowledge of region and even specific producer for the consumer to make a confident choice. The quality wine system may often be opted out of by producers seeking to make quality wine and decisions by their wines. The Super Tuscan using unpermitted grape varieties is an immediate example. Other Italian producers such as dropping out of the 'Superiore' category of Soave, for example, to bottle under screw cap is a move to guarantee quality for the consumer, but would the consumer understand this once 'Superiore' has been dropped from the label.

The New World has had immense success with the concept of varietal labelling and introducing branded products back into the UK market. A Survey by the IWSR in 2011 showed that for the period 1999 - 2008 New World wine imports to the UK increased by 147% compared to a decrease of 9% for the Old World (though it is worth noting this is for volume rather than value/price)

New World labelling systems where the grape is prominent on the label and not necessarily a specific region, makes the products more accessible to the consumer. The consumer can associate with the style of the varietal rather than a region. The New World accounts for over 60% of the UK off trade (as stated by AC Nielsen in 2008) and the British Wine and Spirits Trade Association survey ~~or~~ ~~see~~ commissioned a Wine Intelligence Survey in 2007. (reported by Janice Robinson on her Purple Pages) that found 73% of consumers name varietal at 'top of mind' when purchasing wine: varietal clearly presented on a New World label

makes this easier for the consumer. The varietal approach for the New World is far less bureaucratic and restrictive than the Old World system of wine regulation. It allows unrestricted plantings of grape types by region allowing big brands to farm and produce ^{branded} wines in much bigger quantities than the Old World. Brands being able to source grapes across the whole of South Eastern Australia for example has allowed for bulk production, reducing costs (therefore allowing for marketing and promotion of brands due to economies of scale) and the ability to make a consistent product year on year by sourcing from multiple regions, rather than a smaller specific region affected by vintage variation - this has made the branded wines of the New World a consistent, safer choice in the eyes of the consumer. Indeed the top 20 brands imported in to the UK are mostly New World (only Cartier, JP Chateau and Oglio are from the Old World) and these top 20 brands account for over 50% of the off trade (Al Nielsen) an important factor considering Just Drinks reporting a huge swing from the on trade to the off trade since the 2008 Economic downturn (Dec 2011 article).

The varietal approach also allows the New World to react to consumer demand better than the Old World - examples can be found in the increase of sales from the USA, largely due to Blossom Hill and other white Zinfandel producers being responsible for 2/3rds of UK Rose wine imports, a type of wine that is ~~increasingly~~

It can be argued that this increase in quality is ~~caused~~ ^{caused} ~~eliminating~~ ^{eliminating} individuality in wine, once attributed to 'Terroir' 'Terroir' and producing a homogenised ~~to~~ product.

The New World ~~can be seen to be adopting~~ ^{is adopting} Old World Regulation to a degree. Tighter controls over region suitable for viticulture ~~are~~ could help to stem overproduction. New Zealand for example, responding to the ~~the~~ world's demand for Sauvignon Blanc now has seen increased, unrestricted plantings in unsuitable areas for viticulture, supply has outweighed demand leading to a drop in prices and a tarnished reputation as bulk New Zealand Sauvignon Blanc appears on the Supermarket shelves, a degree of regulation could be used to control this and protect the quality image of the Country.

New World producers can also learn from the concept of terroir and Regionalism as we see many producers moving to cooler climates and increased quality of certain wines in their Range. Tasmania and Mornington Peninsula in Australia for example. Gimblett Gravels in New Zealand, Napa Coast in California, Uco Valley in Argentina are all cooler climates more suitable for premium wine production and of increasing importance to the future of the wine industry, reducing bulk production, ending ~~sub~~ reducing surplus and increasing quality!

June 2012

Buying wine at auction

Auctions have been used for the sale of wine for many years and are popular with investors and collectors. Wines featured in James Christie’s first auction on 5 December 1766 and the first specialist wine auction department was created by Michael Broadbent MW in 1966.

Dedicated wine auctions can be found in a number of wine producing regions and around the world in places where there is a demand for fine and rare wines. Reuters report that in 2010 the main auction houses sold more than \$350 million worth of wine worldwide, with some iconic wines selling for astronomical prices. Asia has seen the biggest growth in wine auction turnover and Hong Kong has now overtaken the UK and the US as the largest auction market by value, with \$173 million worth of wine going under the hammer in 2010. One auction house alone sold \$52 million worth of wine in Hong Kong in 2010, up from just \$14.3 million in 2009.

Auctions can be an effective marketplace for buyers and sellers and the benefits can be significant but trading wines through auction is not without risk as demonstrated by recent high-profile events. As methods of fraud become more sophisticated or harder to detect, producers and auctioneers are under increasing pressure to protect their interests. One of the driving forces here is the ludicrously high prices some of these wines can fetch.

Of course, auctions are not the only secondary market for wine. For example, the fine wine broking sector has grown rapidly in recent years and has its own advantages and disadvantages.

Answers: 242

Passes: 179 (74%)

Examination question (all sections compulsory)

- a. Give an overview of wine auctions describing how they work, identifying the main players and the types of wine sold in this way. (30% weighting)
- b. Discuss the advantages and disadvantages for buying and selling wine at auction. (40% weighting)
- c. Discuss how fine wine fraud may be perpetrated and evaluate the methods available to minimise this problem. (30% weighting)

Responses here were good on the whole with a fairly equal split between candidates achieving pass and merit grades. Marks were generally lost in section b) where responses were brief and rather too simplistic for a section worth 40% of the marks. In the worst cases, candidates struggled to come up with any examples of disadvantages beyond the risk of fraud, which had in any event already been given to them in the candidate brief.

The following two scripts are both good examples of high scoring ones. The first, is given as a good example of what to do when you find yourself running out of time. The final section of this essay is much shorter and superficial than previous sections,

but the candidate has taken the right approach in getting down as many facts as possible, leaving gaps that can be filled in with more detail if time permits.

The world of auctions is alive and kicking, with a total of \$28 billion ~~to~~ spent in auctions during 2011. The world of wine auctions is no less important, with worldwide sales reaching \$478 million in 2011, up 17% on 2010, with the majority of growth ~~occurring~~ occurring in Hong Kong, where, since the abolition of tax duty on wines ~~is~~ in Feb 2008, ~~since~~ and the strong and growing Chinese economy not far away with its array of fine wine collectors, auctions of wine grew 39% ~~as~~ in comparison with 2010.

How auctions work

Let's take an example. A consignor has a case of fine wine to sell. He contacts an auction house and receives an offer. He may then accept the offer and agree to sell, or may approach another house for a better estimate. The wine is then received by the selected auction house and presented in a brochure as a lot for an upcoming auction. Tasting notes, fill levels, ~~provenance~~ ~~and~~ provenance information and some history of the wine may be presented, but not always, and this information is sometimes extremely vague. For example, in the 25th/26th May auction by Acker Merrall in Hong Kong, a case of Domaine Romanée Conti wine from the 1996 vintage was presented, but the only information given

along with a sale price estimate,

was on fill levels (1 cm, 1.5 cm etc.) In the light of recent counterfeiting scandals (more on that later), it would be advisable for auction houses to provide much more detail on provenance to ensure buyer confidence.

~~Other~~

On the day of the auction the lots are presented by the auctioneer, and a minimum price ~~is~~ begins the bidding. Bidders show a numbered paddle and the price increases in "steps" as bidders bid. The steps are relative to the ~~the~~ overall minimum price. Eg. a case estimated to fetch \$2000 may begin at \$1000 and increase in steps of \$200.

~~Conversely~~, A case expected to fetch \$200,000 may increase in steps of \$500 or even \$1000 or more. The superlot of Domaine Romanée Conti recently sold for \$813 333 which featured 55 bottles from between 1952 and 2008 (~~and 1968~~) (excluding 1968) was probably bid for in steps much greater than \$1000!

The lot is then sold to the highest bidder, which may be a person present in the room, or someone on a telephone represented by someone in the room, or ~~indeed~~ indeed a silent bidder who has pre-arranged a maximum bid with the auction house. The auctioneer may suggest a ~~the~~ silent bidder by saying "one more step, one more step".

When the auctioneer brings down his gavel, ~~be~~ the highest bidder is contracted to purchase the lot, and must also pay a

buyer's premium, ~~set~~ plus delivery costs. Online auctions for wine also feature in many sales. These may take place over a week or more and Main players do not include the frenetic energy of an auction room. Prices are more stable/controlled.

Acker, Merrill and Condit were no. 1 auction house in 2011, including online auctions, with Hart Davis Hart ~~the~~ (based in Chicago) taking the no. 1 spot if online auctions are excluded. HOTH was US number 1.

The original wine auction house, Christie's, set up by M. Broadbent in 1966, continued growing in 2011, whereas Sotheby's, its arch-rival, saw a downturn.

Zachys is another major player on the wine auction stage, as well as Vauquish Wine Auctions and Spectrum Spectrum.

The Liv-Ex wine exchange is another secondary market for wine, but is more for brokering than auctions.

Types of wine

Auctions usually attract the best, finest and rarest objects for sale, and wine auctions are no exception. Fine wine makes up the majority of sales in value, with rare lots fetching millions of dollars for just a handful of bottles. The finest

and rarest wines are only sold through auction and can fetch outrageous prices. Eg. The most expensive wine ever sold is a bottle of 1947 Cheval Blanc from Bordeaux, which fetched ~~at~~ \$304,375, ^{at auct} ~~the~~ ^{con} according to the Guinness Book of Records.

~~A type of wine now seen~~

The fine and rare wines sold at auction usually originate from Burgundy or Bordeaux in France. ~~The~~ ~~the~~ Bordeaux first growths were fetching increasingly high prices from 2009 to 2010, with Chinese collectors all scrambling to bid for the iconic Chateaux Lafite, Latour, Petrus and Le Pin, amongst others.

Sales of top Bordeaux began to soften (according to Wine Spectator) in ~~20~~ 2011 though, with the arrival of a "new cool kid" - ~~the~~ the Domaine Romanée Conti, DRC has always commanded high prices, but 2011 saw incredible rises for this Pinot Noir from Burgundy, with ~~the~~ ^{cases} fetching upwards of \$150,000.

The advantages of buying wine at auction

Buyers

Auctions give buyers access to rare, precious wines which may not otherwise be accessible. Prices may be lower than in the past if certain lots do not receive many bids.

Allocations of wine do not allow for easy access to specific vintages, so auctions may provide this access.

Auctions offer buyers the chance to gain an instant collection (this was the name of one of the Acker Merrall auctions).

Sellers

Auctions can bring in exceptionally high prices, with some lots fetching over 3 or 4 times the expected price.

Auctions provide access for sellers to buyers around the world. eg. a seller in NYC may be able to get his wine sold in Hong Kong through an auction house ~~with~~ which is installed in both NY and HK. - Access to buyers. This is not so much a problem with Bordeaux and Burgundy, but less famous New World wines which may potentially sell for high sums need to find the right audience. eg. Screaming Eagle from California can fetch \$80,000 a case on the right market with the right buyer, but these buyers need to attend the auction.

DisadvantagesBuyer

Auction prices may spiral out of control and in the heat of the auction, prices may skyrocket above original intentions.

~~The~~ little or no information on the provenance of wines given in brochures. *bête noir* issue of fine print - the ~~marrow~~ ^{bones} of billionaire William Koch - auction houses are not responsible for history of wines and Christie's ~~sp~~ for example state that they sell their lots "as is" - it's truly a case of caveat emptor - buyer beware.

The dangers for buyers at auction may be counterfeit wines, poorly stored wines (high or low temperatures give no specific outer indication on the bottle but the wine itself may be shot), or simply wines that fetch huge prices may never fetch that price again. It is unlikely that the Chinese appetite for Lafite will ever reach the dizzy heights of 2010, so this chateau may not sell well in the future. Astronomical prices are not sustainable indefinitely.

Disadvantages

Seller

Sellers may not be able to fetch the price they wanted on lots they offer, as their wine may now be out of fashion (Lafite example)

Prices may be lower if any doubt is cast on the provenance of their lots.

doubt by association - other names may suffer if doubts on authenticity are cast on certain names. eg. other high profile red burgundy.

Wine fraud - how it may be perpetrated

Wine fraud may take many forms. ~~# many~~
At various periods in history clarification, filtration, chaptalization and fining have all been considered as fraud, and yet have their place today in acceptable wine-making.

Cases of fraud in today's market may ~~not~~ include adding water, adding other ~~but~~ ^{cheaper} grape varieties to a blend (against appellation laws), selling a lesser vintage labelled as a more desirable one (ie. 1982 vintage Petrus magnums sold by Rudy Kurniawan ~~more~~ on him later) or simply ~~to~~ basic ~~wine~~ wine being passed off as superior wine (case of Chinese importer bringing in basic red wine and labelling it as "Bordeaux AOC" on boats off the coast of China)

Famous cases of wine fraud include ^{range of} The Jefferson bottles, Rudy Kurniawan's cases, The Red Bicycleette Ernst - ~~and~~ Julia Gallo Pinot Noir case and The Italian case where 20,000 bottles of fake Sassicaia were sold out of a Peugeot hatchback in 2000.

Rudy Kurniawan is perhaps the best document fraudster in recent times. I have researched ^{-ed} 3 cases of fraud involving this Chinese/Indonesian mystery wine collector. The first was his 2007 attempt to sell magnums of Petrus (or Latour, not 100% certain) in 2007. The brochure for the auction featured the bottles on the cover and the chateau itself stopped the sale when they ~~was~~ contacted the auction house. In 2008 ~~he~~ Mr Kurniawan attempted to sell \$800,000 worth of Ponsot wines, also stopped
Domaine

by Laurent Ponsot himself. - Acher Merrill auction
The third case was an attempted sale of DRC wines through Spectrum / Vanquish in Feb 2012. He attempted to sell the wines through a straw seller (Antonio Castanos) to avoid being identified as the consignor, but Don Cornwell raised flags on his blog wineberker and the sale was stopped.

Rudy was perpetrating fraud by copying labels (but made serial number & spelling mistakes) and by blending vintages.

Other ways fraud may be perpetrated:
Red bicyclette case: ~~Prod Noir~~ wine was purchased from Sieur d'Arques by E-W Gallo ~~is~~ to make their \$8 Red Bicyclette brand. As it turned out, Merlot & Syrah (cheaper grapes) were being sold.

Historically, ~~the~~ fraud has always occurred. In Roman times, Pliny said that no wine's label could be trusted.

Methods available to minimise fraud

- Proof-tag - since 2009 in Chateau Latour.
RFID technology.

Bordeaux Winebank negotiants with their five-star provenance system, guaranteed by auditors ~~to~~ never to have left Bordeaux (also eco-responsible)

Raising awareness - Chinese CIVB visit to Bordeaux to increase familiarity with appellation names.

Special corks with tamper-proof features.

~~Some~~ Some first growers put holograms on labels and bottle ID.

Laurent Poncet has engraved his signature into each bottle and also uses unpublished tools for identifying bottles that are invisible to the naked eye.

Blogs and forums eg. Russell Foye's wine authentication site, to raise awareness against fraud.

More information on provenance from auction houses.

The second script includes some very good detail in all sections. It is perhaps a little "Hong Kong" specific and whilst there is nothing wrong with writing about the market you know, it is also important to remember to add a global perspective as well.

This essay is going to discuss wine auctions: what they are, how they work and who ^{are} currently the main auction houses. It shall also mention the type of people who might be interested in buying wine at auction and which type of wines are sold in this way.

In the Oxford companion, Francis Robinson describes wine auctions as, "The sale of wine by lots by an auctioneer on behalf of the seller." Wine auctions have been in existence since the middle ages. At that time there was no cork available so young wines were transported in barrels to sea ports where they were then auctioned off. With the invention of the cork in the 17th wine was now able to age in the bottle. This along with improved transportation methods meant that these types of auctions no longer happened.

Wine auction did still occur in auction houses but came under 'household goods'. It was in 1966 that Michael Broadbent set up Christies wine section and had an auction dedicated to wine only. Sothebys followed just a couple of years later.

Wine auctions work when collectors, ^{or} producers decide they would like to sell their wine. The auction house will evaluate the wine and give an estimate of its value. They will then hold an auction where this wine will be sold. The wine is sold in 'lots'. The latter 'lots' can consist of a single bottle, a case, mixed case or a vertical

horizontal collection. They will produce a booklet before the auction which will say what lots are available, the condition of the wine and whether it is in its original case. They will also give an estimate of what the wine will go for. There might be a minimum bid listed. When the wine auction occurs people may place bids on line, in the room or on the phone. A buyers fee is added to the final selling price which goes to the auction house. This fee varies but in Hong Kong can be up to 20%.

The majority of auctions take place in London, New York and Hong Kong. The major auction houses have representation in all cities. 2011's most successful wine auction house was Acker, MacCall and Condit. According to Wine Times Hong Kong, in an interview with the CEO Koper, they sold over \$101 million US dollars worth of wine. 60% of this revenue came from Hong Kong. Sothebys, Christies and Zuckys are also leading auction houses who have also reported huge sales in the last 5 years - mainly due to the reduction of tax in HK. The world wide sales of wine at auction was \$165 million (us) in 2010, in 2011 it was \$230 million (us) - This is according to wine spectator on Jan 17th.

Wine that is old or rare or of high value is sold at auction. This is not exclusive though as bargains can be found. Auctions are a great place to find rare wines though Reuters announced on the 16th March that the champagne found at the bottom of the Baltic Sea will be auctioned off at Acker's soon.

Wine auctions also take place in some areas where producers sell their wine direct. The charitable

auktion 'Hospice de Beaune' being the most famous. Germany also sells high quality wine in locally organised auctions.

Auction for wine have grown enormously in the last 5 years. The auction houses are going from strength to strength. It will be interesting to see if they will be able to continue in this way.

Wine auctions have increased dramatically. This is due to the reduction of tax in HK going from 40% to 0 in 2008. Since the Reuters say that wine imports into Hong Kong have quadrupled and in 2010 they were of the value of \$898 million. (Nov 4th 2011). However, buying at auction is not without its risks. This essay will look at the advantages and disadvantages of buying wine at auction.

The advantages of buying wine at auction are many. You can buy unique wines that would not be able to be purchased anywhere else. The Champagne from the Baltic Sea and the Thomas Jefferson wine being prime examples. (Though the TJ wines have been claimed as fake since.) Nevertheless unique wine are often sold at auction.

It is a place where you can purchase wines of older vintages that are rare. As wine reaches its drinking age more is consumed making it more rare. Vintages from the 19th and 20th often come up at auction particularly the best years such as 1982 in Bordeaux.

It is also a place where you can get a bargain. Despite Hong Kong selling a large amount of wine at auction, Bordeaux has recently been less popular. At the sotheby's January sale Leoville las Cases sold for 45% below its market value.

There is also a lot of fun buying at auction. The fact that it is a live stage can add a lot of excitement to the process.

However, despite being able to get some bargains and old vintages there are some disadvantages to buying at auction. These have been highlighted by recent scandals.

Fraud is an enormous problem in the wine auction world. Most recently Rudy Kurniawan was arrested for fraud. For faking wines by mixing old, less expensive wines together and selling them under labels such as Romanée-Conti. Rudy regularly sold his wines through auction houses. In 2008 Acker auction house pulled 27 lots of Domaine Ponsot on request of the proprietor - the wine was traced back to Rudy. Recently in London 75 bottles were pulled from a Spectrum auction, they were Domaine RC and also thought to have come from Rudy. The best auction houses do their best to counter fraud but it is everywhere. If a person wishes to buy wine at auction they must have provenance of where the wine has come from.

To contradict what was said earlier Auction House are not always a bargain. In 2011 Decanter magazine did comparisons between various vintages of Lafite and what they sold for in HK auction house and what the UK trade price was. HK buyers paid between 23% - 197% more for their Lafite. Was Burgundy is in fashion, recently a case of 1985 Domaine Romanée-Conti sold for \$1.2 million (HK).

There are also extra cost such as the buyers fee added on by the auction house. This is usually around 10%. Often you can not taste the wine before you buy it, but that is usually the case with more expensive wines.

There are advantages + disadvantages to buying at auction. A buyer should always check the provenance of the wine, inspect the bottles before hand, and check the market value of the wine if they want to guarantee success at auction.

Wine fraud is a topic that has been in the news regularly lately. There are different means of wine fraud. This essay will look at the types of fine wine fraud and evaluate how to try and minimise them.

As discussed in the previous essay wine fraud is happening a lot. One of the ways it is occurring is by people, such as Rudy Kurniawan creating fake bottles of wine. This is done by blending wine together to create something that might taste similar to what it should be. To minimise this happening Restaurants should not give out bottles or labels to customers. Kurniawan used to have bottles shipped to him in from various restaurants and it was these that he would fill. The restaurants could also mark the label to say it has been drunk.

When Auction houses are looking at wines they should be very cautious and check the allage and labels for any spelling mistakes or missing accents. Any issues with the wine they should refuse to sell.

Bordeaux is apparently taking steps to prevent this type of fraud. They have hired a lawyer who has currently managed to shut down 100 fake bottling plants in China. Jancis Robinson reported on this in the financial times on March 7th 2012.

Fraud does not just happen in the auction houses. A huge amount of reports regarding wine fraud in wine trading has occurred recently. Wine Business had an article on the 27th Oct 2011 which

claimed that Premium Liquid Assets, who were a wine broking firm has disappeared. They had \$50 million (HK) of their clients money and were nowhere to be seen. In HK you do not need a licence to trade wine. This must be implemented to protect peoples assets.

Having said that in the UK wine brokers need a licence both personal and for the office yet the BBC news online claimed on April 13th 2012 that, in the last 4 years, wine broking firms had lost \$100 million (UK) worth of investors money.

If a person would like to invest with a wine broker then they must use a reputable company with an address and phone number - not a 'one man band' with a website. The laws for wine investment should be tightened.

Another type of wine fraud which is very common in China is 'fake brands such as 'Chateau Lafest'. China is a growing market who are becoming interested in wine. Wine education will help to prevent fake brands doing well.

Fine Wine Fraud is more of a problem than ever before. However, if action bases are thorough at checking wines, stricter rules for wine brokers and investment firms implemented and the general knowledge of wine in grazing markets increased then the problems can be minimised.

Unit 2, Wine Production

This report does not give examples of questions used on the Unit 2 paper as these are live questions and not in the public domain.

Nevertheless, it should be pointed out that statistics continue to show a very good pass rate for this paper. Whilst the questions are certainly not easy, candidates have little to fear providing they study the Diploma Course Notes thoroughly and read around the subject. Visits to wine growing regions and winery tours are also invaluable in understanding the “theory” of this unit.

Unit 3, Wines of the World

Tasting Papers

It is clear from analysis of candidate performance that many struggle to get to grips with the Systematic Approach to Tasting (SAT) and how exactly this should be used.

In August 2012 the WSET issued a fully revised edition of the Candidate Assessment Guide with a long and detailed section on the SAT and its use. It is imperative that all candidates read this document which can be found on the Diploma student section of the WSET website. Rather than repeat its full contents here, this report will simply highlight important general guidance on how to use the SAT along with some common errors that examiners encounter.

Important General Guidance

Hyphens and Commas

It would be helpful to read the following guidance with a copy of the Systematic Approach to Tasting to hand. It will then be seen that the SAT is formatted to include two different lines of text, one where entries are separated by hyphens and one where they are prefixed with the words “e.g.” and separated by commas.

Where terms in the right hand column of the SAT are separated by **hyphens** (for example lemon-green – lemon – gold – amber – brown), candidates should select only ONE of the terms to describe the wine. It is important to be specific, even if the wine appears to be on the border between ruby and garnet for example. Candidates need to be decisive, rather than use a vague range such as “ruby-garnet” or “ruby to garnet”. If both ruby and garnet are valid descriptions, then this will be noted in the marking key and examiners will be instructed to award marks for either colour. If candidates use a range statement such as “ruby to garnet”, “low to medium (-)” etc., then examiners will NOT award the mark even where the marking key notes a range of options. This is because candidates would not be using the SAT correctly. In addition, where candidates use alternative words such as “straw”, “cherry” etc. for colours, or “crisp” for acidity without qualifying a level, they will also NOT be awarded marks. Candidates and/or educators may know personally (or within their community) what they mean by these and other additional terms. However, for the examination to be valid and reliable, the use of terminology between examiners and candidates needs to be consistent. The main reason for limiting candidates to the terms defined in the SAT is that calibrating eyes, noses and palates to arrive at consistent use of these words alone presents a challenge, but one that is manageable. Achieving the same consistency with a wider vocabulary would be considerably harder, and is in any event unnecessary because the terms provided in the SAT are sufficient to describe any wine with accuracy for the purposes of the WSET Diploma qualification.

Where terms in the right hand column are preceded by the words “e.g.” and the items are separated by a **comma**, the candidate is not restricted to the terms in the SAT in isolation. In the case of the lines relating to aroma characteristics, flavour characteristics and “palate: other observations” candidates are strongly encouraged

to use the lexicon on the reverse of the SAT. This lexicon is used in the production of the marking keys, and candidates will be able to gain full marks where relevant using just those terms. However, should candidates wish to use other words or descriptors to supplement their tasting note, the examiner will award marks where these are judged to be appropriate. This means any additional terms used by candidates should be capable of being understood by the examiner, as well as being valid descriptions of the wine.

Three Point and Five Point Scales

In most instances where hyphens are used, candidates are required to place the level of the various components on a scale ranging from low (or pale, light, dry, short) to high (or deep, full, luscious, long). These should be treated as three-point scales (as with the WSET Level 3 qualification) that are further subdivided. Medium (+) is therefore not a point that is equidistant between medium and high, but is a subdivision of the “medium” level descriptor. It can be thought of as being “medium that is towards the upper end of the medium band”. “Medium” is sub-divided in this way because the majority of observations for the majority of wines lie within the “medium” band, and subdividing it in this way makes it possible for candidates to differentiate between the large number of wines that lie within this commonly-used band. For most components of the SAT, it is only “medium” that is subdivided in this way, but sweetness is the exception. In this instance, each point on the three point scale is further divided into two. “Dry” is subdivided into “dry” and “off-dry”, “medium” into “medium-dry” and “medium-sweet” and “sweet” is subdivided into “sweet” and “luscious”. This reflects the fact that most wines are dry or off-dry and takes into account the huge differences in sugar levels between sweet wines.

It can be tempting for candidates to over-use the term “medium” (including + and -), but the danger is that their tasting notes will fail to sufficiently capture the differences between the wines they are assessing. Some candidates have found it useful to make their initial assessment of the wine using a non-subdivided three point scale. The restricted range of terms encourages them to be bolder in their use of the full range of the scale. Having done this, they can then return to the components they have described as “medium” and decide whether these need any further refinement using the (+) or (-) notation. Another way to help avoid over-use of the term “medium” is to think of this (including medium + and medium -) as meaning the same as “unremarkable”. For many components of many wines, the level is indeed unremarkable, and in these cases it is appropriate to use medium (including + and -). However, many of the wines presented to candidates in Diploma examinations will have at least some components that are markedly high or low.

Candidates should remember to use the terminology as it appears in the SAT when using the scales. This may appear to be very stark language but these terms facilitate fairness and consistency in the examination process.

Assessment of Quality

Many candidates give insufficient information when assessing the quality of the wine or simply repeat the observations made under the nose and palate without explaining how they relate to quality. The assessment of quality should seek to place the wine in an appropriate quality category, and, **most importantly**, explain why it belongs in that category. It is not sufficient to simply state what the wine is. Ask yourself how

you would describe it to a customer, is it a large volume wine that is correctly made but lacking in complexity? Is it a top quality, premium wine, and if so, what leads you to this conclusion? The components that contribute towards quality are intensity, structure, balance, complexity, typicity and length.

It is important to remember that quality judgements in the Diploma examination should be absolute – i.e. not taking price or origin into account. However, if candidates are sure of the origin, they may find it helpful to use established quality scales (such as regional, commune, premier cru, grand cru in Burgundy) to convey more precisely how good they think the wine is. This is optional.

Country of Origin

In most instances, one mark is allocated for correctly identifying the country and two for the region. This is to allow those candidates with superior tasting skills to demonstrate these by identifying the origin of the wine precisely.

However, the increased “homogenisation” of some wines makes it increasingly difficult to identify regional typicity in all cases and sometimes it is genuinely felt that some wines could be from a number of countries. In these cases, we sometimes reverse the emphasis of the marks, giving two marks for country and only one for region, or markers may be instructed to allocate marks for more than one country or region. This is particularly true in the case of some New World wines and a case in point was a California Chardonnay where marks were also awarded for identifying this as Australian. However, candidates should not list more than one place of origin in their answer, particularly where multiple origins cover different styles of wine or simply appear opportunistic such as the following candidate:

“This wine is from Italy, although it could also be from California or Australia.”

Common Errors

Comment on Every Line of the SAT

One way to lose marks on this paper is through poor application of the Systematic Approach to Tasting (SAT). Missing out key features such as sweetness, acidity, body, alcohol etc. is simply throwing marks away.

Judge Each Wine Individually

Many candidates still do not appear to understand what is required in a professional, analytical tasting note. There is a tendency for some to compare the three wines rather than describe them individually. This leads candidates to write imprecise comments such as “deeper than wine no 1”, “more intense than wines 1 and 3”, “higher acidity than wine 2”. This is not correct application of the Systematic Approach. Each wine must be assessed on its own merits with all attributes analysed according to the terminology defined in the SAT.

Do Not Jump to Conclusions

Finally, the most common problem is that of smelling and tasting the wine and deciding what it is before writing the tasting note. This inevitably means the candidate writes the tasting note “to fit” their (often incorrect) conclusion rather than concentrating on what is in the glass and then drawing conclusions based on this information. It is vital to keep an open mind when writing tasting notes.

Order of Tasting

Do not assume the order the wines are presented is the best order in which to taste them. In any tasting examination, whether Unit 3, 4, 5 or 6, the first step should always be a quick nose of all three samples to determine in which order they should be sampled. This usually results in assessing the least intense wine first and working up to the most intense or complex. This ensures that your palate does not get overwhelmed by a heavily oaked Chardonnay which then makes it impossible for you to detect the delicate, yeasty aromas of a simple Muscadet for example.

Tasting Paper 1

Question 1: Wines from a single grape variety (not given)

It is clear that candidates find the format of the questions in Paper 1 more challenging than those in Paper 2. The easiest way to lose marks in this paper is by failing to identify the grape variety. A number of candidates insist on giving a different variety for each wine despite being told in advance that one variety applies to all three wines. Another classic mistake is assuming the identity of the grape variety on the basis of the first wine tasted. It is easy to become distracted and attempt to make the remaining descriptions fit the variety chosen rather than using the information in all three tasting notes to arrive at the correct variety. A number of candidates give two varieties rather than one. This is “hedging your bets” and earns no marks at all even if one of the varieties is correct. If asked to give one variety, that is what you must do. In addition, the candidate must give evidence of the logic behind their decision. It is not sufficient to simply recognise what the grape variety is, you must be able to demonstrate how you arrived at this conclusion. This section carries five marks, and you should therefore aim to give at least five valid reasons for your choice.

| | |
|--|-------------------------|
| January 2012: Red wines from Pinot Noir | |
| <i>Answers: 115</i> | <i>Passes: 74 (64%)</i> |

The variety was relatively easy to spot with 60% of candidates getting this right. The line-up included a Burgundy (Morey saint Denis), German Spätburgunder and an Australian wine from Adelaide Hills (Wakefield).

The German wine was often overestimated in terms of quality and often mistaken for Burgundy by those candidates who correctly identified the variety as Pinot Noir. In most instances marks were lost because candidates either gave the wrong variety or were unable to give convincing reasons for their choice where it was identified. There were also a number of illogical varieties put forward such as Cabernet Sauvignon (the colour was far too pale for this) and Cabernet Franc (a very different flavour profile to Pinot Noir).

| | |
|---|--------------------------|
| June 2012: White wines from Chardonnay | |
| <i>Answers: 331</i> | <i>Passes: 227 (69%)</i> |

The line-up included a very good quality Premier Cru Chablis, a very good oaked Australian wine and a good, but not exceptional Chilean wine.

The inclusion of an Australian oak aged Chardonnay alongside a restrained classic Chablis should have helped candidates to identify this variety correctly, but this was not always the case. The relatively subdued elegance of the Chablis was often underestimated as “evidence” of lack of quality whilst the ripeness and upfront fruit of the Chilean wine conversely led a number of candidates to overestimate the quality of this wine.

Along with the usual errors such as not using the correct terminology or forgetting to comment on all attributes of the wine, there are still those candidates who do not read the question – in this instance, giving a different grape variety for each of the three wines rather than one variety common to all three.

Question 2: Wines with a common theme

Despite being given information in the question regarding the common theme, a number of candidates ignore this and lose marks as a result. The importance of reading the question cannot be stressed enough. There is often information in the stem that is there to help and guide you in your assessment of the wine – ignoring this is careless and simply throws marks away unnecessarily.

| | |
|---|------------------------|
| January 2011: White wines with a common link in respect of the growing environment | |
| <i>Answers: 115</i> | <i>Passes: 61(53%)</i> |

This was a disappointing pass rate. Many candidates lost marks because they made incorrect or illogical assumptions. There was evidence to suggest that some did not actually read the question at the top of the paper, assuming that the “common theme” would be “country of origin” as in many previous years. As a result, a number of them simply gave a country as the link and lost marks as a result. Some candidates left the final section of the paper completely blank and therefore lost out on 10% of the marks. There were those who gave illogical responses, for example citing “use of oak” which of course has no connection with “the growing environment” or those who identified the link vaguely as “varietal” or more specifically by naming a variety (Riesling, Pinot Gris) or a specific wine (Vinho Verde). Some showed a distinct lack of logic, claiming the link was “hot climate”, “New World”, “Mediterranean”, or gave simply bizarre or vague connections such as “bulk wine on flat plains”, “long warm summers”.

With questions 1 and 2, it is important to use the information within the tasting notes themselves to arrive at the information that will provide the answer to the final part of the question. In this instance, all three wines were grown in a cool climate. The clues within the tasting notes that should have led to this were the high levels of acidity and the light texture of all three wines. Alcohol levels were also relatively low. The high varietal flavour development in all three wines along with the high acidity, indicated long, cool ripening of the grapes and the “green” flavours found on all three wines was another pointer to a cool climate. Identifying the grape varieties for the three wines would also have helped as these are all known for their success in cool climates.

The three wines in this paper were a Muscadet Sur Lie, a New Zealand Sauvignon Blanc and a Mosel Riesling Kabinett.

| | |
|---|--------------------------|
| June 2011: Wines with a common link in respect of origin | |
| <i>Answers: 331</i> | <i>Passes: 193 (58%)</i> |

In the June exam, the common link was once again “country of origin” – in this case Spain. In a departure from previous papers, the examiners decided in this instance to include both white and red wines in the line up. This was done specifically to make the paper easier for candidates, however many still struggled with this line up which consisted of a good quality Rias Baixas, Rioja Reserva and a good quality Priorat. The following candidate was not one of these, submitting an excellent paper, not only identifying the country of origin and giving convincing reasons for this choice, but also identifying all three wines and giving accurate and extensive descriptions.

WINE No. 4

Appearance: (3 marks)

The wine is clear of medium intensity and lemon green in color, fading to a wide water rim with moderate legs.

Nose: (7 marks)

The nose is clean and of medium (+) intensity, youthful and floral with notes of orange blossom, peach, apple, citrus-lemon, orange, leeks, and a hint of pineapple.

Palate: (10 marks)

The wine is dry with medium acidity, medium body and medium alcohol. The flavor intensity is medium (+) and follows the nose with floral notes - orange blossom, apple blossom, white flowers, and fruit - apple, peach, citrus - lemon, leeks. The finish is of medium length.

Assessment of quality: (6 marks)

This is a good quality mid-priced aromatic white. The aromas and flavors are bright and well balanced with the acidity and fruit. Intended for immediate consumption and mid-market. The best examples of this style might have more concentration and complexity.

Readiness for drinking/potential for ageing: (3 marks)

Drink now, this wine is not intended for aging - the beautiful floral aromas will fade.

Region of origin: (1 mark)

Rias Baixas

WINE No. 5

Appearance: (3 marks)

The wine is clear, medium(+) green in color fading to a thin green rim showing hints of orange. The wine has slow moving legs.

Nose: (7 marks)

The nose is clean, of medium(+) intensity and developing with notes of smoke, leather, oak-vanilla, toast, baking spice, bacon. There are red and black fruit aromas - plum, cherry, wild strawberry, also a hint of mineral. The fruit is ripe, with some baked/dried fruit notes as well.

Palate: (10 marks)

The wine is dry, with medium(+) acid, medium body and medium(+) alcohol. The tannins are of medium intensity and are ripe and fine ~~grained~~ rather dusty. The flavors are of medium plus intensity and follow the nose - smoke, spice, oak, toast, leather, plum, wild strawberry, dried fruit, cherry, earthy notes. The length is medium plus.

Assessment of quality: (6 marks)

This is a good quality reserva level wine showing ~~some~~ some age. The fruit is still present and integrated with the obvious oak, and the tannins are well balanced, smooth and softened. There is reasonable complexity with layers of primary, secondary, and tertiary (dried fruit, leather) flavors. The

Readiness for drinking/potential for ageing: (3 marks)

best examples might have more concentration and even brighter fruit.
Drink now, will not improve further in bottle. Can keep for up to 5 years.

Region of origin: (1 mark)

Rioja

WINE No. 6

Appearance: (3 marks)

The wine is clear, deep ruby in color fading to a thin ruby rim with hints of purple on the rim, the legs are pigmented and slow-moving.

Nose: (7 marks)

The nose is clean, of medium (+) intensity and youthful with ripe fruit - plum, raspberry, blackberry, blueberry, jam, dried fruit - fig, vanilla, baking spice.

Palate: (10 marks)

The wine is dry, with medium (+) acidity, medium plus body and medium plus alcohol. The tannins are of medium (+) intensity - very ripe and supple. The flavor intensity is medium with ripe fruit - plum, blackberry, black cherry, blueberry with mineral notes and a hint of bitter chocolate. Fresh, baked, and dried fruit all present. Flavors linger over medium plus length.

Assessment of quality: (6 marks)

This is a very good quality wine, highly priced premium priced. The ripe fruit, med (+) tanning and med (+) acidity are well balanced and there is a good concentration of flavor with complex layers of flavor. Best examples might offer even more concentration and complexity.

Readiness for drinking/potential for ageing: (3 marks)

Drinks well now / will improve for 3-5 years and keep even longer.

Region of origin: (1 mark)

Priorat

COMMON LINK IN RESPECT OF COUNTRY OF ORIGIN: (5 marks) Spain

WHICH CHARACTERISTICS IN THE 3 WINES LEAD TO THIS CONCLUSION? (5 marks)

Range of wines chosen leaves few countries - aromatic white, oak aged (lengthy aged) red and bold concentrated red point to Spain. The aromatic notes of the white are very typical of Albarino and the savory oaked characteristics of the red are very typical of Rioja. The concentration and flavors of the remaining red could

fit many countries but to narrow it down to Spain.

Tasting Paper 2

Question 3: Partly-Specified Wines

As the focus of this question is to test the candidates’ ability to differentiate between the quality levels of the three wines, it is vital that the candidate fully understands how to demonstrate this skill. Unfortunately many are confused or not precise enough when it comes to the quality assessment. Comments such as “average quality” will not gain marks. This section of the paper carries a large number of marks and comments such as “good” or “AC level” are simply not sufficient. What the examiners are looking for here is a statement of the quality of the wine that is supported by well argued reasoning and analysis that demonstrates an understanding of the elements of a wine that contribute to its quality. The key to success with this question is being able to recognise these characteristics. Once the premium wine has been identified, the other two should fall into place.

The format of this question allows the Examination Panel to select wines, which, in a blind tasting, could be considered too much of a challenge. In some cases, we might consider a grape variety that may be less familiar to some candidates. Removing the pressure of needing to “identify” the wine, means that candidates can concentrate on writing accurate tasting notes describing the wine and focus on relating the evidence they extract in this process to an evaluation of the possible quality level. In reality, for many, quality assessment is a significant area of weakness so this paper is not as easy as it appears.

| | |
|--|-------------------------|
| January 2012: Alsace Pinot Gris | |
| <i>Answers: 115</i> | <i>Passes: 77 (67%)</i> |

The wines were Alsace Pinot Gris – a basic Hugel wine, a very good quality single vineyard wine (Domaine Bott-Geyl Sonnenglanz) and an SGN from the same producer.

As in previous years, it was in the assessment of quality where marks were inevitably lost. This accounts for 27% of the marks on this paper and is costly when done badly. Determining levels of sweetness was another weakness in a number of instances, along with a tendency to find evidence of oak when this was not present. Oversimplification leads some candidates to assume “creaminess” or “texture” can only be due to use of oak without considering other options that can lead to this characteristic in a wine.

The following extracts from two scripts show the difference between the short, “list” approach that results in low marks and fail grades, and the comprehensive, descriptive tasting note that generates high marks and therefore high grades.

Poor note:

WINE No. 7

Appearance: (3 marks)

clear deep^x orange^x colour, m⁺-legs ✓

Nose: (7 marks)

clean, pronounced[✓], honey[✓], apricot[✓], marmalade[✓], christmas pudding[✓]
hazelnut, very complex

Palate: (10 marks)

m⁺-Sweet[✓], rich fruit character, m⁺-acid balanced with
its fruit, m⁺-Alc⁺, m-body[✓], maturing
long length[✓]

Detailed assessment of quality: (9 marks)

Very high quality, Tokay 5 putto
good balance[✓] and complex[✓] and concentration[✓]
¥ 6000 ~ 6500

Readiness for drinking/potential for ageing: (4 marks)

It can drink[✓] now but can keep more 10~15 years

Good note:

WINE No. 7

Appearance: (3 marks) Bright and clear. Medium (+) intensity of gold color with a ~~water~~ watery rim. Some heavy legs.

Nose: (7 marks) Clean. Medium (+) intensity of fully developed nose of honey, toffee, caramel, botrytis notes but still got some floral, ~~and~~ ripe and dried apricot, pineapple, mango.

Palate: (10 marks) ~~Very~~ sweet. Medium acidity. Medium alcohol and full body. Medium (+) intensity of dried fruit of apricot, pineapple, mango, caramel, honey, botrytis note. ~~Rich~~ and expressive with rich texture. ~~At~~ Long length.

Detailed assessment of quality: (9 marks)

Very good quality AOC wine of premium priced market suggesting an estate bottle SGN1 botrytis affected sweet wine. Sweetness is well integrated with reasonable acidity and rich full body texture. Good complexity from ripe fruit and botrytis derived aroma. Very good finish length and concentration reflecting this assessment.

Readiness for drinking/potential for ageing: (4 marks)

Ready to drink. Good concentration and complexity makes this wine able to ~~of~~ improve in next 3-5 years then keep for another 4-6 years.

| | |
|-------------------------------------|--------------------------|
| June 2012: Australian Shiraz | |
| <i>Answers: 331</i> | <i>Passes: 232 (70%)</i> |

The wines in this trio were Australian Shiraz – a simple basic wine, and two far more structured wines with intense fruit. The difference in quality level between these two was quite subtle, but was helped by the difference in style – the better wine being a Barossa Shiraz (St Hallett Old Block Shiraz 2008) with slightly more power and concentration than the Clare Valley wine from Skillogalee.

Question 4: Unspecified Wines

It is a common misconception amongst candidates that if they identify the wines correctly, they will pass this paper. This is simply not the case. If you total up the marks available for the conclusion compared to marks awarded for the sections on the appearance, nose and palate of each wine, you will see that the tasting note itself generates the bulk of the marks, (20 marks for the description, 8 marks for the assessment of quality and state of maturity and only 4 marks for identifying the wine and grape variety). This means it is quite feasible for someone to write accurate tasting notes, yet not identify the wines and still pass (sometimes even with a high grade), whilst someone else can identify all three wines yet fail because their tasting notes are inaccurate and short. It is not enough to simply recognise what the wines are (anyone can do this if they taste a wine often enough). The candidate needs to be able to strip the wine down to its component parts, describe these accurately and make judgements based on this information. This is what professional tasting is all about. Without an extensive and accurate tasting note, the examiner has no way of knowing whether the correct identification was anything more than a lucky guess or the result of tasting something familiar – no tasting skills have actually been demonstrated. The answer lies in the accuracy of the tasting notes themselves and in the assessment of quality.

Candidates often fall prey to the common error of deciding what the wine is having smelt or tasted it, and then write a tasting note to match their conclusion, which in some instances may be incorrect. This is easy to do under examination conditions and is very tempting when you think you know what the wine is. However, it is always a bad move as the tasting note is invariably less accurate because the candidate tends to describe how they “expect” the wine to taste rather than how it actually does taste. It is vital to keep an open mind until the tasting note has been completed and reviewed, and only then to reach a conclusion as to what the wine might be.

| | |
|---|-------------------------|
| January 2012: Red wines – Château des Vierres Beaujolais Villages 2009, Chinon Les Gravières 2009, Seghesio Sonoma County Zinfandel 2009 | |
| <i>Answers: 115</i> | <i>Passes: 72 (63%)</i> |

There were very few exceptional scripts in this paper, with only three candidates achieving a distinction grade and very few submitting sound assessments for all three wines.

The California Zinfandel seemed to give the fewest problems in terms of the description, although identifying it correctly was another matter. As in past papers, candidates seem to find these “big” New World styles easier to assess than more subtle wines where they have to look deeper to identify the characteristics.

| | |
|--|--------------------------|
| June 2012: Rosé and White wines – Domaine des Martyrs Côtes de Provence Rosé 2011, Pouilly-Fuissé, Sybille Kuntz Riesling Trocken 2008, Kim Crawford Marlborough Sauvignon Blanc 2011 | |
| <i>Answers: 331</i> | <i>Passes: 240 (73%)</i> |

The Riesling and Sauvignon Blanc were straight forward for the majority of candidates sitting this paper, although many were thrown by the dryness of the Riesling and also underestimated the age of this wine. There was evidence to suggest that the identity of the rosé was largely down to guesswork, although better tasters took into account the colour and the structure in determining what the wine might be.

Theory Paper

There is definitely a technique to answering questions in the Unit 3 theory paper and a few simple, common sense rules can help to maximise marks.

1. With a requirement to answer five questions in total in three hours, some candidates clearly do not pace themselves appropriately, producing three answers of reasonable length, then two that are skimpy or rushed (or in some cases only one more). More practice at writing essays precisely, and within the time allowed is essential examination practice. Candidates should allow themselves a maximum of 30 minutes to answer each question. This will leave them half an hour to spare. The best way to use this time is to read through the examination paper and decide which questions to attempt, spend around five minutes on an essay plan for each question, and use any time remaining to read through responses before submitting them for marking.
2. There is often very little evidence of candidates planning their responses. It is always a good idea to make a quick essay plan before starting to write. This ensures that the key points are covered in a logical way. Those who do not follow this advice often fail to address specifically the key words in the question. The five minutes spent jotting down key facts is never time wasted. This is often the best way of determining which questions are the best ones to attempt. A question that seems easy initially may be one that is difficult to come up with hard facts for. An essay plan is the best way to determine if this is the case.
3. When drafting questions for the Diploma examination, the Examination Panel takes great pains to ensure that the wording they choose leads candidates to the answer they require. This means that questions contain vital, key words that form the basis of the question and therefore, by default, the answer. It is a really good idea to underline these key words and use them as the basis for the essay plan. This ensures that all aspects of the question are covered and the writer does not stray "off topic".
4. Some candidates do not appear to read the question carefully enough. This is often a problem with "multi part" questions where the candidate may be asked to write about four or five topics from a list of six for example. Candidates who mistakenly answer all six sections are creating unnecessary work for themselves as the examiner will only mark the number of sections requested in the question and ignore any surplus.
5. A number of candidates simply write generally "around" the question, without actually answering it as set. Remember, questions are set with a purpose – none of them are phrased "write all you know about....." Examiners work from a marking key or marks schedule that details the scope and detail required in an answer. They will not allocate marks for information that is not relevant to the question as set.

January 2012

Group A: Compulsory Question

| | |
|--|--------------------------|
| <i>What are the strengths (50% weighting) and weaknesses (50% weighting) of Languedoc-Roussillon as a wine producing region?</i> | |
| <i>Answers: 153</i> | <i>Passes: 105 (69%)</i> |

This was a good result for a compulsory question which leaves nowhere for the really weak candidates to hide. Of those who failed this question, there were as many who did so with a fail (unclassified) grade as those with an ordinary fail grade. There was also a fairly equal split between those achieving pass and merit grades.

Candidates were generally better at identifying strengths than weaknesses and there was evidence of a general lack of commercial awareness, with many missing obvious weakness such as competition from new world wines, the drop in consumption in the domestic market, rising costs of production etc.

The following script is a good example of one that achieved a high grade. The candidate makes plenty of valid points which are put across clearly.

| |
|---|
| <p>What are the strengths and weaknesses of Languedoc-Roussillon as a wine producing region?</p> <p>Languedoc-Roussillon is one of the most important wine producing areas in France, and can be considered as the most important area for the production of Vin de Pays wines. As a wine producing region it has various strengths and various weaknesses, and perhaps some issues that can be considered as both, depending on the perspective.</p> |
|---|

One of the most striking factors about Languedoc-Roussillon is the sheer variety of wines that are made there. There are many different grape varieties planted, different climates, meso-climates and terroirs, many different production techniques and producers, and wines made there range from entry level economical wines, to top quality wines that can be very expensive. This factor can work both in the region's favour, and against it. The variety means there will almost certainly be something for any taste made somewhere in the region, but it also contributes to the region's lack

of identity abroad, and lack of recognition. However the variation found in Languedoc Roussillon highlights many of the region's strengths. For example it has both traditional Appellation Contrôlée areas, as well as recognisable Vin de Pays areas. Fitou AC, Minervois AC and Corbières AC are all recognisable names in the UK market, as are Vin de Pays de Languedoc Roussillon and Vin de Pays de Côtes Catalanes.

The fact that international varieties can be planted for Vin de Pays wines here is a definite strength. Consumers can recognise grape varieties such as Chardonnay and Cabernet Sauvignon, much better than they can recognise more traditional local varieties such as Carignan and Cinsault.

The region has been receiving lots of investment in recent years which also adds to its strength. Large manufacturing companies such as Domaine Carondeau from Chablis have interests in this area, with their Languedoc Roussillon venture Mas Le Chenavier, which makes Vin de Pays from single vineyards from varieties such as Chardonnay and Syrah.

Co-operatives play a large part in this area, and these have been increasing in quality in recent years. Cane de Pomeral, based near Popoul

de Pinet, are producing better wines thanks to investment into stainless steel tanks and fermentation vessels.

One of Languedoc Roussillon's weaknesses is its main red grape variety - Carignan. This variety is very hard to ripen, and not make too jammy when it does ripen. It has high tanning, and little fruit forward nature. There is much encouragement however to replace Carignan, or to blend it with 'improving varieties' like Cabernet Sauvignon, Grenache and Syrah.

The region is often regarded as a cheap option, and much of the wine that makes it into supermarket shelves is discounted and uninspiring. There is also a lack of any really big brands coming from this area, which is a disadvantage as brands are great for raising an area's profile. Perhaps this is where the variety is a disadvantage to the region, in that the consumer cannot be sure what to expect.

Overall however Languedoc Roussillon has proven itself capable of producing some excellent wines, whether they be AOC or Vin de Pays, and recognisable grape varieties or not. As winemaking practices continue to improve, and if investment into quality winery equipment and modern practices continue, the area will continue to prosper. It has much going in its favour - the variety, climate - as long as it is not too hot a summer, and the investment. It needs to keep on top of ever production, and continue planting more quality varieties.

Group B: 4 questions to be answered from a choice of 6

What are the characteristics of Merlot that have made it such a success with producers and consumers? Illustrate your answer with examples from Europe and the New World. (An essay format is COMPULSORY for this question)

Answers: 120

Passes: 60 (50%)

Every Unit 3 theory paper contains one question that must be answered in an essay format. These questions are usually more topical and discursive in nature and are therefore more suited to this form of response. This was a fairly popular choice of question, answered by 78% of candidates, many presumably attracted by the apparently "open" nature of the question. This was a mistake for many of them, as this question needed plenty of detail relating to the grape and good examples of specific wines for a sound pass grade. Of the 60 candidates who passed, more than half of them did so with a low level pass grade – there were very few really strong responses and only two candidates achieved a distinction grade. The examiner commented that too many candidates allocated too much space in their essay to listing where Merlot is grown rather than using examples of wines to illustrate why it is such a successful variety.

The following candidate was one of those who missed out on a top grade because although the essay is clearly written, points are argued well and it is very good at identifying the commercial appeal of Merlot, it is missing out on many of the characteristics of the grape that make it so popular and there are no specific examples of wines – just generic examples.

Merlot has had success both as a varietal wine and as part of a blend. Classically originating in Bordeaux it has always been the dominant grape variety in Right Bank Bordeaux appellations – St. Emilion, Fronsac and Pomerol and has played a supporting but vital role on the left bank as part of a blend – mainly with Cabernet Sauvignon. To the Cabernet Sauvignon blend, Merlot brings a softness, a ripeness both of fruit and lower but ripe tannins. This is a very influential component in realising the style of the wine. The more merlot, the younger drinking the wine, the higher proportion of cabernet the tougher in youth and the more longevity. In Right bank Bordeaux some of the best varietal examples (and blended) giving elegant, plummy, strawberry scented wines. Despite the reasonably low acidity & tannin of the grape if produced in a cool climate and picked selectively these can be wines that live up to 30-40 years.

It is this restrained acidity and tannin that makes Malot such a hit with consumers who associate it with easy drinking.

Since the New World has opened up a new market Malot has been marketed exceptionally well as a varietal not only from New World producing countries such as Chile^{the USA} but also

Vin de pays produces in France, Sicily, and Texas. have lentled on to the success of Malot as a 'brand'. It is one of the most 'known' grape varieties by consumers, and its world wide distribution helps this.

From the perspective of the producer, Malot is reasonably easy to grow within certain parameters. It is a black grape variety with average thickness of skin. This means that it doesn't automatically have loads of tannin like thick skinned varieties eg Neb. It nor does it have thin skin, like Pinot Noir prone to splitting, heat damage + rot.

In cool climates producers have to make sure that they achieve physiological ripeness otherwise the pips and stalks give an underripe green stinkiness to the wine as in satellite night bank appellations in cooler years can struggle with this. In hot climates producers must be aware of a baked jaminess that can develop in over-ripe grapes.

Malot is happy on most free-draining soil types and can be high yielding. It therefore offers consumers and producers a variety of styles from different climates + different terroirs - but from the consumers point of view there is always a homogeneity of style - that plummy, round fruit that they associate with the variety.

For producers it is a useful grape to plant in addition to others to blend in to 'stabilise' a vintage. Merlot can add suppleness, and colour and texture to thinner wines....

Also promoted by films such as *SIDEWAYS* (if accidental) just reinforced strength of grape as BRAND.

RE on-trade have also latched on to brand merlot which also pantheonises the consumer.

RE majority of pubs in the UK list a Chilean merlot as 'rain house' wine. Attractive pricing is also a factor. Other than premium region of bank Bordeaux appellations merlot tends to be inexpensive. A lot of bulk merlot is produced in Sicily, Chile + California (+ Australia).

Always medium to full bodied can be drunk on its own without food which I think is a key factor to any wine's huge popularity. Most consumers do not want challenging or fannish wines. Particularly in the UK we do not have a strong food and wine culture so the success of grapes like merlot and Sauvignon blanc from the new world is rooted in their plumpness and almost sweetness.

Merlot's image is that of a rich, easy-going 'will never let you down' grape.

For producers who want to have a large market for their wine, a varietally labelled merlot is a good bet at the right price point.

| | |
|--|-------------------------|
| <i>In relation to Australia and/or New Zealand, write a paragraph on FIVE of the following:</i> | |
| a) <i>Hawkes Bay</i> b) <i>Grenache</i> c) <i>2011 harvest in Australia</i> d) <i>Tasmania</i> e) <i>Screw cap</i> f) <i>Pinot Noir</i> | |
| <i>Answers: 138</i> | <i>Passes: 91 (66%)</i> |

This was the most popular question on the January Unit 3 theory paper, chosen by 90% of those sitting and was almost certainly answered by those candidates sitting in our new Diploma APP in Australia. However, there was one very unpopular section in this question – the 2011 harvest in Australia. Very few candidates tackled this option and many who did, got it wrong with many of them totally unaware of the problems attached to this vintage such as widespread flooding.

There were inevitably candidates who forgot to link their answers to New Zealand and Australia, particularly in the case of the “generic” topics such as the grape varieties and screw cap where many candidates wrote about other parts of the world. This was a particular problem with Pinot Noir, where there was far too much reference to this variety in Burgundy, and there were also those who only wrote about Australia OR New Zealand rather than both where relevant, or wrote too much about sparkling wine in the section on Tasmania, forgetting that the syllabus for Unit 3 covers still light wines only.

The following script is included for two reasons:

1. It gives good responses in all five sections – something that is important with this style of question, where each section carries 20% of the marks. One or two weak sections puts the candidate in a position of weakness, and often leads to failure. It is true that the section on Hawkes Bay is the weakest, but this candidate has still provided enough facts for a pass grade in this section and others are considerably better.
2. Responses in all five sections are extensive. Many candidates who fail, simply do not write enough. This candidate has written an average of one side of text on each of the five sections (the exception being Hawkes Bay, which is shorter). Many candidates who fail, struggle to fill two sides of paper for all five sections in total and are surprised that this is not sufficient for a pass grade.

a) Hawkes Bay is a grape growing region (one of the first with significant plantings) on the East coast of New Zealand's north island. The region surrounds the towns of Napier and Hastings. Hawkes Bay has a warm maritime climate, with year-round rainfall. Soils are highly variable, but the Gimblett Gravels subregion in particular is well known for its alluvial river gravels.

The most grown varieties are Chardonnay and Merlot, though Sauvignon Blanc and Pinot Noir are also grown.

Gimblett Gravels has gained a reputation for its very high quality, Syrah and Bordeaux blends, particularly from producers such as Craggy Range and Trinity Hill.

Many other suppliers source grapes from Hawkes Bay including Brancott, Stoneleigh, Oyster Bay (Merlot)

b) Grenache has a long history of being grown in Australia. Being drought resistant and well suited to warm, dry growing environments, it has performed well particularly in South Australia's McLaren Vale and on the ironstone and limestone soils of the Barossa Valley.

From the late 19th century till mid 20th century grenache was most used for fortified wines, which accounted for the majority of production in Australia until the 1960's. Once tastes turned to still wines, grenache didn't immediately benefit from the fashion in Australia and overseas for Cabernet Sauvignon in the 60's-70's then Shiraz from 1980's. Some of the very

old vines dating to the mid-19th century in Barossa were removed as part of the 1986 vine pull scheme. Thankfully, some remained and are now treasured for their concentrated, low yielding fruit.

As all things Rhone have become fashionable Australia's Grenache is now much more appreciated both as varietal wines such as those of Turkey Flat and Cuvillo, and in southern Rhone blends such as Penfolds Bin 138 and d'Arenberg's Ironstone Pressings.

d'Arenberg has recently released a number of small volume, concentrated and expensive single vineyard Grenaches.

Australian Grenache is typically, medium to medium (+) intensity, ruby in colour, with aromas of cherry, chocolate, plum, strawberry, coconut (some aged in American oak), and a rich, dry - though fruit-sweet - palate of ripe red and black fruit, chocolate, and ripe medium level tannins.

- d) Tasmania is Australia's most southerly state, lying to the south of Victoria. Its climate and wines are more similar to those of New Zealand than mainland Australia. Climate is cool and maritime, though can vary substantially - some sunny sheltered sites are warmer than parts of Victoria.

Tasmania does not have a long history of viticulture, but as demand for cool climate styles gathered pace in Australia and elsewhere through the 1990's - early 2000's, plantings have rapidly grown.

Cool climate varieties dominate - riesling, pinot noir, sauvignon blanc and chardonnay are the most widely grown varieties. However Domaine A produces high quality cabernet sauvignon, and a Tasmanian Shiraz has just recently ~~been~~ won a major Australian wine award (Jimmy Watson Trophy).

Major producers are Tamar Ridge, Freydiset, Josef Chromy. Numerous Australian producers have also invested heavily here - both Brown Brothers and Shaw + Smith in recent times. Penfolds also sources fruit for its premium Chardonnays here - including Yattarna and its Reserve Bins.

Tasmania is also a major grower and producer of sparkling wines. Local producers such as Kreglinger, but Hardys also source much of their sparkling wine fruit from Tasmania - especially Arras.

e) Screw caps have now been almost (though not quite) universally accepted in Australia and New Zealand.

Given the experimental nature of new world producers, less market resistance in Australia and New Zealand (especially given widespread acceptance of alternative packaging such as bag in box) and the widespread acceptance in the industry of the shortcomings of corks (particularly affecting the wines of the earliest adaptors) it made sense for the change to come from here.

The change stemmed from issues of random oxidation and trichloroanisole cork taint being deemed a greater threat to quality perception than an effective closure with down-market connotations.

Clare Valley producers in South Australia were the first to take a ~~cross~~ unified approach, in the early 1990's. Given the dry, floral style of redlings produced suffered more than a Barossa red for example, when a cork failed to fully protect a wine from oxygen ingress, the change made perfect sense.

The same can be said for New Zealand's following on. Today very few NZ wines of any description are sold under cork. For light aromatic Marlborough Sauvignon Blanc this makes logical sense.

There are still - more in Australia than NZ - some resistant producers who feel the tiny amount

of oxygen permitted via the cork through lengthy ageing is better suited to certain wine styles.

Giaconda's Rick Kingbrunner has been vocal on the subject.

- f) Pinot Noir is New Zealand's second most planted grape variety. It is perfectly suited to the country's cool climate and southerly latitude (to 45°S in Central Otago), which provides long slow sunny ripening conditions, and cool nights to retain acidity and aroma.

Pinot Noir is widely grown in Marlborough, Nelson, Canterbury, though New Zealand's best are from Wairarapa (particularly Martinborough) and Central Otago. Central Otago has been particularly fashionable over the last 10 years producing ripe, fruit driven Pinot Noir in New Zealand's only continental climate in the depths of the South Island. Martinborough has a longer history producing more serious and savoury, ageworthy examples.

Key producers - Martinborough: Ata Rangi, Dry River; Central Otago: Felton Road, Mt Difficulty; Marlborough: Framingham, Oyster Bay.

Pinot Noir also used in NZ's sparkling wines.

In Australia, Pinot Noir has a long history though has not always been grown in the right climates. It is widely grown - in Western Australia's Great Southern, in the Hunter Valley, Adelaide Hills. The best examples are from the Yarra Valley, Mornington Peninsula and Tasmania. Cooler climates are the key - thanks to altitude and some maritime influence in the Yarra, and cool southern ocean and latitude in Mornington and Tasmania.

The Australian style of Pinot Noir is generally more full bodied and more red and black berry fruit than is common elsewhere. Key producers are William Downie, Bass Phillip, Giant Steps,

Describe the classification systems of St-Emilion and Cru Bourgeois. (50% weighting). Discuss the changes that have taken place in the last 10 years. (50% weighting)

Answers: 51

Passes: 13 (25%)

The Results Panel were appalled by the quality of the majority of responses to this question given the mainstream subject matter and the fact that half the marks were awarded for simple factual recall in the form of a description of the classification systems in both areas. Given that this is taught in varying levels of detail at both levels of WSET qualifications that precede this one, these should have been easy marks, yet it was alarming to see how many were unable to describe the systems with any authority. In many instances the systems were described incorrectly, including far too many elementary errors such as locating Pomerol in St-Emilion. In addition, it was clear that the second half of the question put a number of candidates off, and many of those who answered this question ignored the second half of it completely which explains why more candidates achieved either fail or fail (unclassified) grades than any other. Many of those who did attempt the second half of the question, were unaware of recent events that were fundamental to answering this competently.

The following script was one of the few better ones.

The 1855 Classification of the Médoc, Graves and Sauternes lifted the listed wines high above their neighbours in renown, prestige and price. Although many agree the classification is faulty when applied today, its success led to demand for recognition or wineries which had not existed or were improved since 1855 as well as for those in regions of Bordeaux outside its consideration. Two systems attempted to meet this need, the right bank of St-Emilion drew up a classification of its wines in the ~~1930s~~ 1950s while a Bordeaux wide classification of red Cru Bourgeois was created in the 1930s.

St-Emilion's Classification System was in three levels: Grand Cru Classé and above them, Premier Grand Cru Classé A and B. Premier Grand Cru Classé A consists of just 2 properties, Château Ausone and Cheval Blanc, an attempt to acknowledge the two outstanding properties of the region as the 1855 classification did for Sauternes' Château d'Yquem. To avoid the historical anomalies of the 1855 classification which doesn't recognize improvement or permit declining standards St-Emilion's classification would be reviewed every 10 years and be based upon a tasting, a visit to the property and current

market reputation (a tricky area to judge in some cases).

Cru Bourgeois was reviewed in 1978 and then again in 2003. The 2003 review was annulled (more to follow) and as it presently stands from the 2009 vintage Cru Bourgeois is a designation of quality rather than a classification.

Open to all red wines in Bordeaux an international tasting panel awards the standard annually. As an indicator of quality outside the 1855 classification this appears to be working well and Jancis Robinson MW described the 2009 Cru Bourgeois as the 'best value Bordeaux ever'.

The 2003 Classification of Cru Bourgeois was annulled and the 2007 St-Emilion Classification is currently withheld pending a decision promised in 2012. While Europe agrees the systems need reviews with both promotions and relegation no producer agrees that they should be relegated. In 1855 those who were not included did not know the longevity and value of the Classification, in the modern world producers know precisely how valuable these systems are, to lose your status is to lose £ thousands of Euros in price and sales, prolonged and expensive litigation by excluded properties questioning the conditions of the tasting for both Cru-Bourgeois and St-Emilion lead to a difficult period where several Châteaux did not know what they could

or couldn't put on their labels. Cru Bourgeois appears to have settled the issue, but there is still rankor with excluded then re-classified producers claiming to be 'treated like dogs' (decanter news story) when excluded from the glittering Vinexpo Cru Censé St-Emilion dinner. A group law suit by Chateaux and a reconsidered Classification are still up in the air for St-Emilion, devaluing the value of the Classification and confusing consumer

| | |
|---|--------------------------------|
| <p><i>In relation to wine production in South America, write a paragraph on FIVE of the following:</i></p> <p>a) <i>Carmenère</i> b) <i>El Niño</i> c) <i>Coquimbo (Elqui and Limari Valley)</i> d) <i>Bonarda</i> e) <i>Joint Ventures</i> f) <i>Brazil</i></p> | |
| <p><i>Answers: 67</i></p> | <p><i>Passes: 26 (39%)</i></p> |

Unlike the previous paragraph question on Australia and New Zealand, this was not popular, answered by only 44% of candidates, most of whom did so very badly, resulting in no distinction grades and only a few merits. Many candidates only attempted two or three sections instead of five as instructed in the question, and some answered all six sections (inevitably too briefly to achieve convincing marks in any of them). In such instances, examiners are instructed to mark only five sections, not all six.

On the whole, the section on Carmenère was the best, but certainly not exceptional by any means. Responses on El Niño were surprisingly poor. Many candidates did not understand that it is a weather pattern and not just an ocean current. As the question was in relation to South America, its impact on Chile and Argentina was expected, yet many candidates wrote about California and Australia instead or as well. Many candidates opted out of the section on Coquimbo, which is surprising considering how many white wines are appearing in the market from these regions. Most of those that attempted this section, did it well. Weaker answers simply referred to general growing conditions in Chile rather than those specific to Coquimbo and there were also those who confused this with other regions further south. Bonarda was another topic that was avoided by many and was often described as a white grape. The section on joint ventures allowed some candidates to claw back some marks but very few candidates thought to explain what a joint venture is, why they are popular and what the participants gain from them. Many candidates simply mentioned foreign producers who have purchased properties in South America and were producing wine, but these were not examples of true joint ventures. The section on Brazil generated mixed results. There were those who had learnt this section of the syllabus and had some knowledge of the wine regions of Brazil, and there were those who knew very little or were simply guessing and hoping for the best.

| | |
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| <p><i>Piemonte produces wines of great diversity from indigenous varieties. Select and describe THREE wines from different indigenous grape varieties which illustrate this statement, one of which MUST be from the Nebbiolo grape. Explain how factors in the vineyard and winery contribute to the style of these wines. (50% weighting for Nebbiolo based wine, 25% weighting for each remaining wine.)</i></p> | |
| <p><i>Answers: 128</i></p> | <p><i>Passes: 89 (70%)</i></p> |

This was the second most popular question on the paper, and answered reasonably well as the pass rate shows. Most candidates were helped by the fact that 50% of the marks were easily earned on the Nebbiolo based wine, with most writing knowledgeably about Barolo. Responses relating to other grape varieties were often superficial in contrast and the weakest candidates selected wines or grapes from the wrong region or from varieties that do not exist, such as the candidate who wrote about Asti Spumanti and the "Friuli" grape variety.

The following script is a good example of one of those that was very good on Barolo. The other grapes selected were Barbera and Gavi. The former was also covered well, but the section on Gavi was weaker, resulting in this achieving a merit grade rather than distinction.

6) In Piedmont, in North west Italy many grapes are grown and produce many different wines. 3 wines I want to discuss are ~~DOC~~ Barolo from Nebbiolo, a red grape, Barbera d'Alba from the Barbera grape also red and ~~DOC~~ Gavi from the white Cortese grape. 1st is Barolo this is the regions greatest wine and one of Italy's top red wines. Here in Barolo there are 5 communes La Morra, Barolo, Castiglione di Falletto, Serralunga, and Monforte. There are 2 main soil types one ~~is~~ from the Helvetic epoch and one from the tertiary epoch. These soils produce very different wines. From the more fertile ~~is~~ La Morra and Barolo we get wines that are more feminine, floral, and approachable when young from the poorer less fertile soils of Monforte and ~~is~~ Serralunga we get very masculine, tannic wines that require more ageing before they become approachable. Castiglione di Falletto is an or grigio soil that combines the structure of Monforte with the concentration + floral notes of La Morra. Hence the climate is continental they are at the foot hills of the Alps and Barolo / Nebbiolo is often planted on the best south facing slopes to ensure phenolic + physiological ripeness. Nebbiolo regardless of where it is planted has high acid +

tannins this later the wine maker needs to pay attention to otherwise can get out of balance very easily or have ~~some~~ issues with the ripeness of the tannins. Nebbiolo also must be handled with care as it is prone to oxidation, winemakers now have tendency to use rotifers or paying over to help with tannins and oxidation issues. Barolo is a big wine with usually high tannin, acid, and alcohol. It usually has flavors of tar, rose, flowers, and with oak ~~can~~ ^{barrigue} can have eucalyptus, cinnamon and chocolate. Next Barbera d'Alba DOC is a region in Piedmont that ~~is~~ ^{is} made with ~~Barbera~~ Barbera grapes usually is made as a simpler style wine than Barolo, however many top producers are ~~to~~ buying yields and barrigue ageing them to produce serious good quality wines. Barbera ^{its wines} ~~is~~ a ~~grape~~ ^{one} known for its dark ~~color~~ color and its high acid. It produces fruit forward wines with red fruit, cherry, strawberry, and minerality. Its wines are usually red to red + oak high acid and either lower tannin or higher tannin depending if it is a drink now style or an ~~age~~ ^{age} ~~worthy~~ ^{worthy} ~~more~~ ^{more} serious style. The 3rd wine is gavi this is a DOCG white wine region in Piedmont. The wines are produced from the cortese grape. They have red to high acid and flavors of white floral, elderflowers, apples, citrus fruits ~~etc~~. Most are temperature controlled, when fermented

to keep to clean fresh appeal. It is
 grown on slight slopes of its area
 when yields are kept in check can
 produce good quality wines from better
 terroirs, however most is middle of
 the road acceptable neutral white
 wine that competes with wines from
 Ato Adige + colto.

With reference to climate, soil, grape variety(ies), viticulture and winemaking, discuss the WHITE wines of the following regions:

- a) Rioja
- b) Rueda
- c) Rias Baixas

(Each section carries equal weighting)

Answers: 100

Passes: 36 (36%)

Like so many of the questions in the January paper, this was also answered poorly by the majority of those candidates who attempted it, with only one distinction grade and 11 candidates achieving merit. In fact, the largest grade banding in this question was the fail (unclassified) one.

The high failure rate was largely because too many candidates simply described the wines, sometimes very briefly or incorrectly, and said very little to explain how the factors listed in the question come into play. This is a common feature of this type of question.

June 2012

Group A: Compulsory Question

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|--|--------------------------|
| <i>With reference to the wines of Napa Valley and Central Valley (California), describe how geography, climate, winemaking and the marketplace influence production. (Each region carries equal weighting)</i> | |
| <i>Answers: 379</i> | <i>Passes: 262 (69%)</i> |

This was a good result for the compulsory question, bearing in mind that it is answered by both the best and the weakest candidates. There were some extremely good responses, but also some extremely weak scripts, the worst of which achieved only 8%.

Responses were better on Napa than the Central Valley with a number of candidates confusing the latter with the Central Coast. Candidates were also weaker at writing about the marketplace in these two regions.

These two regions were selected for this question specifically because they produce wines that differ so much in terms of style and quality level. Candidates who failed to make this clear in their response and were unable to explain the reasons for the difference through reference to geography, climate winemaking and the marketplace inevitably did not do well.

Group B: 4 questions to be answered from a choice of 6

| | |
|--|--------------------------|
| <i>What are the factors that contribute to the diversity of wine styles produced in Germany? (An essay format is COMPULSORY for this question)</i> | |
| <i>Answers: 292</i> | <i>Passes: 159 (54%)</i> |

This was the second most popular question on the paper, answered by 77% of candidates despite the compulsory essay format.

However, this was a disappointing result with far too many candidates simply writing everything they knew about German wine, with very little thought about what it is that defines the many styles being produced. Many presumably thought it was simply a case of describing the various Prädikat levels and mentioning soils and grape varieties. This resulted in very simplistic and rather “dated” essays on German wine with little or no acknowledgement of the many changes that have taken place in recent years, such as the increase in the amount of red wine being produced, or the

emphasis on dry wines, where the VDP is at the forefront of this revival with the introduction of new "classifications" such as Grosses Gewächs and Erstes Gewächs. Although if done well this basic approach was sometimes enough for a borderline pass, candidates needed to do significantly more for better marks.

The following script is well written, and is very good from a factual point of view. It is less convincing in terms of more recent trends which are only very briefly touched on.

Germany has traditionally produced a large range of styles of wines. There are a number of factors that ensures that this diversity will continue and further develop over the coming years.

One of the main influencing factors is the fact that Germany is a northern country and is therefore close to the limit at which grapes can be ripened successfully. Many of the German wine regions such as the Mosel, Ahr, Mittel Rheine, Rheinhessen and Pfalz are located in the northern portion of West Germany. The climate here is therefore continental, far from the moderating effects of any ocean. The climate is short warm summers followed by a long mild autumn and a very cold winter. These climatic conditions come together to dictate the types of grapes that will grow and ripen successfully here and hence the style of wines produced.

Because of the marginal climate vineyards have been planted in areas where specific micro climates exist to help produce quality, ripe grapes. The geography of the land helps to produce these micro climates. It is not an accident that many of the best vineyards are planted in river valleys, such as the Mosel and Rhine, where the steep sloping ~~sides~~ south, south-east facing, valley sides allow the vines to receive as much sun light as possible. The rivers in the valley below help moderate the temperature by reflecting sunlight during the day and storing it up and releasing at nighttime. Also the water movement helps with the dissipation of frosts. The mountains at the back of the slopes protect the vineyards from northerly cold winds.

As a consequence of these climatic and geographic conditions certain wine varieties have been found to thrive, such as Riesling and Müller Thurgau.

the fact that certain varieties thrive here has contributed greatly to the style of wines produced. Riesling is a late ripening variety but thrives in parts of Germany as there is a long ripening season. Different sites give longer or shorter ripening periods and hence the grapes are picked at differing times with varying degrees of ripeness. The level of ripeness will decide the style of wine produced from dry riedel through the sweetness range to very sweet ice wines made when the grapes are frozen on the vine. Muller Thurgau was developed by the Germans to try and produce a grape with Riesling's character but to be earlier ripening and with a high yield. Although widely planted it does not produce wine of the quality of Riesling. As such the Muller Thurgau is planted out the bottom of the valleys and on the fertile Rhine valley plains where it produces a lot of simple, family wine for early consumption. The valleys by comparison have very stony, slate and weathered granite soils. They are very infertile and force the vines to send roots deep into the soils to search for nutrients and moisture. This can in the best sites such as the Lutzgarten site in ^{on the Mosel} Utzig produce wines with great finesse and a minerality found nowhere else.

The wines produced on these valley sides can be dry or very sweet depending on the growing conditions each year. The climate thus affects the ripeness of the grapes and therefore the sweetness of the final wine. In poor years grapes that only just ripen will produce dry, acidic wines that need to be sweetened with süssreserve (grape juice). The level of sweetness will depend on the producer. In better years riper grapes will produce ~~wines~~ wines with more body and fruit flavours that can be either dry or sweeter. Noble rot in some years will allow the making of Auslese, Beerenauslese or even very sweet Trockenbeerenauslese. These styles of wine are all permitted under the German wine laws. The style of wine made

is dependent on the weight of the wine must on the Oechsle scale, which basically measure the amount of sugar in the grape must. The best wines produced from the best sites by the best producers demand high prices. On the other hand the Muller-Thurgau and silvaner grown on the fertile valley bottoms and river plains produce simple unassuming wine such as Liebfraumilch. These wines are aimed at the mass export markets where they are seen as cheap simple straightforward wines.

They are generally medium-sweet and not very exciting but account for a large volume of the German wine production and export figures. The German vineyards are in European Climatic Zone A, the coldest region, except for Baden which is on the South West corner of Germany across from the Alsace region of France. This is in region B, so slightly warmer.

Consequently the grapes grown here can be ripe producing a fuller bodied and more concentrated style of wine from their more northerly counterparts. Pinot noir can be grown here successfully, producing quite full bodied concentrated wines.

The geography of the area also contributes to the diversity of styles in the area. An extinct volcano, the Kaiserstuhl, has been remodelled by the German authorities to produce large terraces on the granite/volcanic soils that provide the vines with the best exposure to the sun and poor soils to keep yields low.

Traditionally many wines in Germany were produced in a sweetish style. This is now changing as more food friendly wines are being sought after by the German people. In this way, market trends are having an effect on the diversity of styles produced in German wineries.

Germany's geography, climate, geology, history all affect what wines can be made in each area. The vines grown and the level of care and expertise shown will also be a determining factor as to the styles produced. The wine laws and the demand for certain styles will also contribute to the many quality levels and different wines produced. In my opinion the biggest factor is the climate. Each year the weather will ultimately help the winemaker decide what style of wine they can produce with labelling economically or out of necessity.

| | |
|--|-------------------------|
| <p>Describe the wine region of Puglia, commenting on:</p> <ul style="list-style-type: none"> a) Climate and soil (10% weighting) b) Grape varieties (30% weighting) c) Key styles and quality levels of wine (30% weighting) d) Recent development (30% weighting) | |
| <p>Answers: 110</p> | <p>Passes: 63 (57%)</p> |

It was no surprise that this was not a popular question. It was answered well by those who had studied the breadth of the syllabus and those with knowledge of recent developments. These were the candidates that achieved a pass grade or higher, but many answers were simply too brief and too generic and there was a surprising lack of knowledge of local grape varieties with many not even mentioning the key one, Negroamaro.

The following script was excellent – perhaps written by an Italian candidate.

Puglia is a southern region of Italy, located on the Adriatic coast, which forms "the heel of the Italian boot". The climate is Mediterranean with long, very hot summers (38° - 40° in July-August which are the 2 hottest months of the year) and a long, dry and warm ripening season, and mild winters with temperatures rarely falling below $5-6^{\circ}$ C. The majority of the rain (600 mm) per year is concentrated between October and February and representing a real risk for viticulture. Drought is some years may be a problem. The soil in Puglia is calcareous, made up mainly of clay and limestone (it is called "argillareo" in Italian) although there are some parts of Puglia which are characterized by a high level of iron and the soil is brown red (the area from the Alto Salento downwards to Lecce). The great majority of Puglia is flat (Tavoliere delle Puglie indicates a particularly flat area) and the only 2 areas which have gentle hills are the Murge surrounding the city of Bari and the Gargano area, up in the north of the region around Foggia. Viticulture is more concentrated in the Salento area. The main grape varieties used for the production of red wines are: Negroamaro, Mv. di Troia, Malvasia, Mv. ^{and Primitivo di} ~~white~~ ^{Grandi} ~~var.~~ the most common one used for the production of white wines is Malvasia Bianca and some ubiquitous international varieties like Chardonnay.

* a very active one is in Apertino.

Pirot Gris, Trebbiano. In recent years producers, and Cooperatives (very common in Puglia*) are rediscovering and promoting indigenous varieties trying to achieve less anonymous and more exciting wines (for example the local dark period Sannarone is launched by the cooperativa Torre Ghaeto) - Puglia after Veneto and along with Sicily has favoured quality over quantity so far, contributing to the wine lake and producing almost as much wine as Australia. Mechanization is becoming more and more common and vines are trained high as "tendone" or on the opposite very low (as gobelet, "alberello" are now being trained on wires). The majority of wines are vinified using inert containers, like cement vats and stainless steel vats, with a short fermentation for red wines and oak is rarely used for red wines and almost never used for whites. Wines produced from grapes like Primitivo, Negroamaro or Uva di Troia for example do achieve a high level of alcohol up to 14% (usually 13.5%), high level of tannin which can be quite harsh in most attention is dedicated to winemaking, with intense aromas of black berries, black eucalypt leaf, pepper notes, liquorice, cloves, white and low level of acidity. More quality conscious producers have recently introduced some oak (rarely new) - examples are Cantina Due Palme and Accademia Dei Palermi, two of the biggest companies, more export oriented while Cooperatives are still unfortunately focused on the production of cheap, alcoholic, quantity for big

of wines. White wines either produced by cooperatives or single producers are generally vinified using stainless steel vats or cement with not enough attention or lack of means for temperature control. Wines are therefore very often floppy & unexciting. Some producers like Claudio, who produce a Pinot style and and Alberto trying really hard to widen and position on the higher level wines from this region. Concluding, there is still a lot of wine in this region which is produced focusing on quantity (both from cooperatives and single producers) but a few, notable producers like Decademia del Racemi and Cantino Due Palme have started investing in wine making equipment and, ageing systems, marketing, achieving also yields and exploring export markets, including UK, USA, Germany.

What are the similarities of (50% weighting) and differences between (50% weighting) the Beaujolais and Mâconnais districts.

Answers: 285

Passes: 120 (42%)

This was another very disappointing result for a question on a key region - Burgundy. Generally candidates knew the basic facts relating to climate, main grapes and soil in the two regions, but were weak at pulling out the finer detail required to answer this question well. They were particularly weak in terms of viticulture, use of oak and commercial aspects with many believing the wines of the Mâconnais to be of higher quality levels than the majority of them realistically are.

The following script achieved a fail grade. What there is, is correct, but it is far too short and superficial for a pass grade, being little more than an essay plan.

| | |
|--|--|
| | Similarities and differences between Beaujolais and Mâconnais |
| | Similarities |
| | - Both part of the Bourgogne winegrowing area |
| | - No Grand Cru or Premier Cru wines |
| | - Climate both influenced by the Rhone river and therefore less risk of frost from March until May |
| | - No use of the Pinot Noir grape variety |
| | - More cooperative wines in comparison to other winegrowing areas in the Bourgogne |
| | - Appellations named after the Villages |
| | - Average quality wines |
| | - Wines are from low to mid priced |
| | - Higher yields in comparison to other winegrowing regions in the Bourgogne |
| | - Commercial wines for direct consumption |
| | Differences |
| | - Beaujolais is mostly red wine, Mâconnais mostly white |
| | - The soil in Beaujolais is mainly granite, in the Mâconnais mainly limestone |
| | - Main grape variety in the Beaujolais is Gamay (noir) and in the Mâconnais Chardonnay |
| | - Maceration Carbonique is widely used in the Beaujolais, not in the Mâconnais |
| | - Beaujolais works with "Cru" wines named after the specific village |
| | - More wines from the Beaujolais is exported |
| | - "Beaujolais Primeur", not similar selling issue in the Mâconnais |
| | - More oak ageing or barrel fermentation in the Mâconnais |

In contrast, the following script is more extensive and worthy of a pass grade, although it lacks the elegance and detail of a script awarded a higher grade.

The most obvious similarities between the ~~Beaujolais~~ Beaujolais and Mâconnais districts is that they are both in Burgundy region of France. They are in fact neighbours with the Mâconnais above the Beaujolais. They share similar continental climates, cold winters, wet and long hot summers. Arguably Beaujolais being further south is warmer.

Both have "Village" status with the region. Areas of better quality which are allowed to promote the fact on the label. Both have premium cru areas such as Puligny-Fixé in Mâconnais and Fleurie or Mouli-a-vent in Beaujolais. This as per the Burgundian Appellation system promotes certain area of quality and recognises that distinction. Both areas are associated with larger ~~and~~ ~~open~~ companies. Buying wine as grapes negotiant

to find into a larger more commercial amount. George Deboef, in Beaujolais has an international reputation for the Beaujolais.

In comparison to its ~~best~~ competing districts in the Côte Dor and Chablis these wines are considered to be of slightly less quality and do not have the aging potential of its sisters.

Therefore both share ~~the~~ ~~the~~ similarity of needing to be drunk young. This is especially true with Beaujolais Nouveau.

Its differences are also plentiful. Firstly the Maconnais is a white wine region only, producing wines from Chardonnay and also a little Aligote. Whereas Beaujolais is made from red wine only, almost entirely Gamay.

Soils are different as well. Beaujolais sits on a granite outcrop the better region at higher altitudes on the steep slopes. Whereas in the Maconnais the soil is more a mix of limestone with clay and sand. This explains why the varieties and styles of wine are that much different. The terrain aspect of Burgundy highlighted particularly in this instance.

In terms of marketing in the UK. Beaujolais has built a reputation of Beaujolais Nouveau releasing a concentrate light bodied fruity wine and marketed as a "latest release" get it while you can product. Maconnais is marketed as a more value for money Chardonnay from Burgundy. It is slightly leaner and riper than Chablis and doesn't have the USP (unique selling point of Beaujolais)

Production methods are very different. Clearly being red and white certain methods will be different anyway. Yet Beaujolais used semi-carbonic maceration or full carbonic maceration to ensure just colour and little tannin is extracted from the wine. It is a method almost exclusively used in Beaujolais and unsuitable for the Chardonnay of Macon.

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|---|--------------------------|
| <p>Write a paragraph on FIVE of the following:</p> <ul style="list-style-type: none"> a) Columbia Valley b) Paarl c) Margaret River d) Martinborough e) Rio Negro f) Uruguay. | |
| <p>Answers: 211</p> | <p>Passes: 109 (52%)</p> |

The breakdown of marks for this question showed that it was answered both by those who really knew the subject (with a top mark of 84%) and those who only knew a little about some of the sections (a bottom mark of 16%). The danger of the five part paragraph style question is that there is nowhere to hide if the candidate is unable to answer all five sections or if more than one section is weak. With all five parts carrying equal weighting, it only takes two weak sections for the candidate to be at a real disadvantage and likely to fail.

Although the question did not volunteer this information, most candidates were aware that these were all wine producing regions and structured their answer accordingly. A good approach in all six sections would have been to consider the characteristics of each region, such as climate, soil, grape varieties, viticulture, winemaking.

The section on Columbia Valley was answered well on the whole, although some candidates mistakenly placed it in Canada or Chile. Answers on Paarl were poor for such a significant wine region of South Africa. Most responses were very basic, with many candidates discussing ocean influence and maritime climate and listing grape varieties as Sauvignon Blanc and Pinot Noir. However, as this is a hotter, inland region, styles and varieties needed to match the climate and very few candidates did this. When it came to Margaret River, there was some confusion with Coonawarra and some references to South Australia and South East Australia. A number of candidates mentioned “cool climate” which is an oversimplification since Cabernet Sauvignon is grown with great success here. Many thought it is on the same latitude as Bordeaux and frequently the wrong ocean was cited. Martinborough was answered well on the whole, although there was some confusion with other regions with reference to “South Island”, “hot inland climate” and “Gimblett Gravels”. Quite often there was no reference to Pinot Noir with candidates simply writing about Sauvignon Blanc. Rio Negro clearly highlighted those candidates who had studied the full breadth of the Unit 3 syllabus. These were the ones who scored high marks in this section. Others often thought it was a region in Brazil or Chile, and some clearly clutching at straws wrote that it is a river. Responses on Uruguay were surprisingly good, with most showing a basic understanding of the country, location and climate. Tannat certainly needed to be mentioned, and was by most candidates.

| | |
|--|--|
| What is the role of blending in the production of the following: | |
| a) | Large volume branded Australian Chardonnay |
| b) | Sauternes 1er Cru Classé Grands Vins |
| c) | Red Rioja Gran Reserva |
| Answers: 285 | Passes: 138 (48%) |

Along with the question on Mâconnais/Beaujolais, this was the third most popular question on the paper, answered by 75% of candidates. There were lots of very uninspiring scripts with some extremely weak responses, the worst achieving only 7%. Most candidates simply wrote everything they knew about the wines rather than focussing on the issues relating to blending. Many only considered the issue of blending of grape varieties rather than expanding their responses to include many of the other components of the blending process and only the best candidates made any attempt to link these components to the effect that they have on the wines produced. Far too often candidates simply described the wines rather than discussed them and this means that answers were superficial and missed many key points.

The following script is an example of one such candidate, who achieved a fail (unclassified) grade.

| | |
|----|---|
| a) | Large volume Branded Australian Chardonnay. |
| | Typically hailing from south eastern regions McLaren Vale, Chardonnay is harvested mechanically and fermented in millions + litre @ stainless steel tanks. As new wood pallets shy away from over use of oak, not much oak treatment used - and if it is would be in the form of oak chips or essence. Musts may be included to increase alcohol, and no regulations are in place to prevent this. Consistency is key, as millions of bottles are sold annually and consumers have an expectation of the predictability. |

b) Sauternes les Cru Classé Grand Vins

Using grapes that have been exposed to botrytis (noble rot), of the Semillon or Sauvignon variety, are hand picked in bunches to preserve the delicacy of the grapes. Grapes are pressed and blended dependent upon extent of exposure to rot and to maximize sweetness and acidity. Noble rot gives nutty, honey and toasted flavours while still achieving balance. The best quality Sauternes command very high prices and are in limited supply.

c) Red Rioja Gran Reserva.

Made from the tempranillo grape, Gran Reserva Rioja offers flavours of spice, leather, tobacco and strawberries. Requiring a minimum of 3 years bottle aging before release, Gran Reserva Rioja's are not produced annually as they command exceptional weather and quality grapes in order to be produced.

This candidate has not made a single reference to blending in terms of the Rioja. In contrast, the following candidate has written considerably more, resulting in very good responses on the Australian Chardonnay and the Sauternes, although the section on Rioja is weaker. This was a common trend in most scripts, and there was even one candidate who simply stated that red Rioja Gran Reserva is not blended, although it is hard to understand why they think we would bother to ask the question if this were the case.

The role of blending is to increase complexity of a wine, to gain balance or to use the most possible of a crop of grapes

a) The main purpose of blending in volume branded Australian chardonnay is to give a consistently (high) quality of the wine of every vintage or every time the wine is produced. An important aspect of buying a brand is to reduce risk. When you buy a brand you know what to expect and you more or less then know what you will get. By blending wines for a brand consistency in style may be achieved. Grapes can be made into wine to give desired style and complexity including:

- Grapes from cooler vineyards for freshness
- Grapes from warmer areas for richness
- Over-ripe grapes for sweetness and added complexity and an "easy to like" style
- Some under ripe grapes for freshness and complexity
- Use of wine that has gone through malolactic fermentation for creaminess
- Use of some wine that has been on lees for even more creaminess
- Use of wine that has been aged in wood or use of oak chips for added complexity and spiciness

- Use of wine from lower yielding sites or even concentrated grape must for weight and concentration
- Use of high yielding plants for a lightness in wine

All the components are blended to get desired style. When sourcing from different places wine can be the same even if a vintage is particularly hot or cold. Through this price and style can be kept constant.

b) The role of blending in a Sauternes 1er cru Classe Grand vin is to get a concentrated, complex, dense and sweet wine, yet fully balanced through the right level of acidity and an alcohol to match it. A 1er Cru Classe grand vin from the sauternes is not necessarily made in every vintage - only in those when the conditions in weather make the grapes botrytised to concentrate the grape juices sufficiently. The aim of blending is to get a combination of freshness, sweetness and complexity from botrytised. A wine can be blended on basis of:

- Usually three different white grapes will be used in different proportions: Sauvignon Blanc for an aromatic style, Semillon to add acidity and muscadelle to add sweetness and volume
- A higher proportion of Sauvignon will make the wine more aromatic, but also more expensive.
- Several different tries through the

vineyard needs to be made to pick only the most botrytis affected grapes. The more tries that are made, the more concentrated and complex will the finished wine be. But, as it is all manual labour with grapes being picked over one at the time for each bunch, it also drives the cost of the wine up. The producer needs to decide the right level of botrytis and how many tries he can do and if it corresponds to the price he will be able to obtain for his wine.

- There is also a choice whether to put all of or only parts of the wine in oak.

Usually new french oak will be chosen, but old oak may also be used.

- There is usually a separate vinification of each grape, so the cellar master or vinemaker will need to blend the different semillon, muscadelle and sauvignon based wines. He also needs to chose how much botrytis across the wine should have when blending and if blending to one cheaper cuvee and one top cuvee or if rather making only one.

- There is also the choice to release the wine early when it is more fruity, to free capital or whether to further mature it and sell more expensively as an older vintage.

- A wine with a high content of Botrytis affected grapes will be more concentrated, more complex and higher in glycerol. It will be longer lasting and more impressive but also the most expensive.

- It is an equally important decision for a top Grand Cru Classé chateau to decide not to make a vintage as it is the other way as a bad vintage can destroy a reputation of high quality.

c) For Red Rioja Gran Reserva the aim of blending is in a way between the two others. To ~~at~~ a certain point a big Rioja ^{quality} Producer like for instance Bodegas Muga will want the house style to be recognizable at the same time as there is a point in showing vintage typicity. The wine will only be made in the best vintages maybe only 3 vintages within a decade.

- Tempranillo will usually be used as the main component of the wine to give fruit and body.

- ~~Also~~ Garnacha will be used to give colour and body as well as sweetness to the wine.

- Uva Mazueho will be used to give structure, colour and acidity.

- There will be a strict selection of grapes where the best grapes are put into the grand reserva while the lesser grapes will go into the reserva.

| |
|--|
| <p>- To keep control of maturation and development only the grapes will be vinified separately for blending later</p> <p>- Some wine will be in new oak from France adding freshness and driving the price up</p> <p>- Some wine will be matured in American oak to give sweetness and vanilla aroma aroma</p> <p>- Usually the grapes from the oldest vines will be used. Here the yields are lower. This gives a more concentrated and powerful wine at the same time as it drives the price up</p> <p>- The wine will be blended to obtain fruitiness, powerfulness, acidity to endure long ageing and oak to add spice. The wine may be tough when released but is made for cellaring. It is made to taste of quality and of a Grand Reserve</p> |
|--|

With reference to France, write a paragraph on FIVE of the following:

- a) Viognier
- b) Muscadet Sur Lie
- c) Mourvèdre
- d) Jurançon
- e) Guigal
- f) Bourgueil

Answers: 333

Passes: 93 (28%)

This was the most popular question on the paper, answered by 88% of candidates. However, although on the surface a paragraph question on France may have appeared to be the easy option for candidates who only studied the mainstream parts of the syllabus, this was really not as straight forward as it appeared, with “tricky” sections such as Jurançon and others that showed up significant gaps in candidates' knowledge, for example Guigal and Bourgueil. Even easy sections such as Muscadet Sur Lie were often answered in very basic terms, frequently just a description of the wine and a superficial statement that it is “aged on the lees”. Like the compulsory question, this was clearly answered by a large number of the weaker candidates, but in this instance they were unable to come up with the hard facts that these paragraph questions require for a pass grade.

As a result, the pass rate for this question was a complete shock for the Diploma Results Panel, who were alarmed at the lack of knowledge in some of the sections of this question. The following candidate not only answered one section in a single sentence rather than a paragraph, but also managed to include the largest number of errors in the fewest number of words:

“Jurançon is a dry red wine from the Jura mountains in the North of France.”

Unit 4, Spirits of the World

The examination for Units 4, 5 and 6 requires good all round knowledge on the part of the candidate for them to do really well, as the tasting and theory paper carries equal weighting. However, the paragraph format of the theory question still allows those who give good responses in two sections (but may be weak in a third) to pass the paper as a whole, providing their tasting paper achieves high marks.

The approach to this question is no different to that for paragraph questions in the Unit 3 examination, you should aim to get as many facts down as possible. Nevertheless, it is still important to make sure that what is written relates specifically to the question as set. For example, if asked about the production of a particular style of spirit, there is no point describing at length the basic principles of distillation that apply to any style of spirit. This is something examiners comment on time and again.

In terms of the tasting question, there is evidence to suggest that some candidates do not add water to their samples when assessing them. This is foolish, as they inevitably “blast” their taste buds to the point that they are unable to assess the samples properly.

The examination for Unit 4 was run on three separate occasions in the academic year 2011/12, in November, March and June. The overall pass rate for the unit as a whole for all these dates combined was 67%

The questions and individual pass rates for each of the three examination dates were as follows:

November 2011

| | |
|--|--------------------------|
| Question 1 – El Jimador Reposado Tequila, Calvados Roger Groult 3 years old, Courvoisier VSOP | |
| <i>Answers: 268</i> | <i>Passes: 212 (79%)</i> |

Results for this question were extremely good with 20% of candidates achieving a distinction grade.

The concluding sections of this question focussed on the ageing of these three spirits, asking candidates to describe how this influences the style of the spirit. Some candidates ignored this and simply wrote the information set out in the concluding sections of the Systematic Approach to Tasting Technique, commenting on readiness for drinking, quality and what the spirit was. They lost marks as a result.

| | |
|--|--------------------------|
| Question 2 – In relation to spirits, write about each of the following: | |
| <p>a) Islay b) Molasses c) Vodka production</p> | |
| <i>Answers: 269</i> | <i>Passes: 185 (69%)</i> |

This was a good pass rate, with a good number of merit and distinction grades.

Candidates generally scored good marks in the section on molasses, but the section on Islay tended to polarise candidates with some excellent responses (possibly from Malt Whisky enthusiasts), whilst others struggled to know what to include in their answer. Some candidates answered this section without making any reference to peat at all. There was inevitably plenty of irrelevant information in some responses, for example from the candidates who wrote about the distillation process for Whisky production rather than focussing on information relating to Islay itself.

March 2012

| | |
|--|-------------------------|
| Question 1 – Absolut Vodka, Wray & Nephew White Overproof Rum, Grappa di Moscato Giallo | |
| <i>Answers: 153</i> | <i>Passes: 97 (63%)</i> |

There was some evidence of guesswork with these three clear spirits, with some candidates appearing to allocate identities at random. As a result, there were some very illogical and unconvincing deductions such as identifying the Vodka as Gin and the Rum as a fruit spirit made from cherries or pears. The Grappa also proved tricky for many, but this was perhaps more understandable. It was often mistaken for Tequila. The use of the Moscato grape was actually very evident on this spirit, with plenty of perfumed and fruity character – orange, tangerine, apricot, grape, rose, lilac, lavender, camomile were just a few of those noted.

There were the inevitable problems caused by those who did not follow the Systematic Approach for Spirits. This differs considerably from that used for assessing wine, and this is an easy way to lose unnecessary marks. Some candidates also pay no attention at all to the wording of the question, and instead just work their way through the various headings at the end of the Systematic Approach.

| | |
|---|------------------|
| Question 2 – In relation to spirits, write about each of the following: | |
| a) Cognac grape varieties b) Marketing of premium gins c) Maturation and blending of Scotch malt whisky | |
| Answers: 153 | Passes: 94 (61%) |

Although the pass rate for this was reasonably good, there were inevitably problems with many of the scripts submitted. This was usually down to the inclusion of irrelevant information or straying too far from the question that had been set.

For example, in section c) the examiner is only interested in information relating to MATURATION and BLENDING, so it is pointless writing about the distillation process. There were similar problem with the section on the marketing of premium gins. Often, this amounted to no more than a list of gins and their attributes rather than discussion of the marketing strategies behind these products.

Good candidates identified premium gin as a relatively recent phenomenon, and discussed the need to establish a point of difference from lesser brands since, with the exception of some Dutch Gins, gins cannot command a premium on the basis of ageing. Some examples of marketing strategies mentioned by good candidates included:

- Stylish packaging designed to look good on the back bar.
- The correct pricing strategy based on the assumption that “if it’s expensive, it must be good”.
- Establishing a USP, e.g. type of still used in production, use of unusual or exotic botanicals etc.
- Innovation in production such as limited editions or small batch products that generate “desirability”.
- Targeting provenance, e.g. Hendricks and Scotland, or even more specifically The Botanist which uses botanicals from Islay.
- Targeting markets where consumers have high disposable income.
- Linking the product to aspirational, sophisticated lifestyle.
- Using celebrity endorsement, particularly at events featured in “lifestyle” magazines and gossip columns.
- Establishing a link to the current fashion for cocktails.

These are just some of the ideas that were discussed by the better candidates.

The other two sections on this question posed fewer problems and generated some very good responses, such as the two below from candidates who both achieved distinction grades in this paper:

Section a)

The main grape variety for cognac is Ugni Blanc, which represents about 95% of the grapes used in the spirit. It is a relative of the Italian Trebbiano, with high acidity and producing low alcohol wines. It is rather bland but well suited for this spirit. It has been very much the replacement of the Folle Blanche grape, which ~~was~~ is more fragrant but due to the very compact grape bunches rather prone to grey rot. It also did not grow well on American rootstock. Folle Blanche continues to be used but to a smaller degree. The third grape that is commonly used, but representing less than 5%, is Colombard, which can be racy and fragrant but leads to a wine over 10° abv, which is less desired by the distillers.

The grapes that are allowed are codified in the decree of 1926 (which set out the AOC Cognac) and further adapted in 1938. Additionally, the following grapes are also permitted: Jurançon blanc, Meslier St François (rather high alcohol), Mesnil, ^{select} and Sémillon. The latter grape is currently not used by any producer. The other ones in the last group are only used in minute quantities.

Section c)

c) The maturation and blending of Scotch malt whisky is what sets it apart from other spirits and gives it its unique character and identity. Before maturation the colourless spirit that has been distilled could in fact go down the route of becoming a Vodka or Gin, but it is its life after this point that takes it on a whole other course.

Scotch malt whisky is matured for a minimum of 3 years in Scotland in oak casks. These oak casks are usually ~~the~~ 2nd fill, that is to say that they have been ageing another wine/spirit for ~~one~~ year previously. ~~Often~~ Usually ex-Barbosa casks are used, but some distillers do choose to use other types of cask such as ex-Cognac casks. ~~That~~ The fact that these casks have already been ageing a spirit mean that there is less 'intrusive' oak character imparted to the malt whisky. There ~~is~~ ^{are} some flavours that come through in the end product - they interact with the whisky bearing out its flavours whilst also creating new ones. Flavours like caramel, nuts, vanilla, toffee are common examples. The oak also contributes to the colour of the whisky, whilst a whisky maker may add some caramel to the whisky to aid in giving the whisky a richer, deeper colour. Some colouring matter does ~~of~~ come from the oak. Some tannins are also given to the wine.

Once the malt whisky has spent a minimum of 3 years in oak cask the blender then ~~blends~~ composes his blend. The length of ageing in barrel often exceeds the 3 year minimum, 6-8 years is common, sometimes longer.

The blender will draw on many different casks of malt whisky, some from different (or a different) distilleries, some from different vintages. The blender is not so interested

in the individual components as the final composer. The fact that ~~are~~ some malt whiskies are older or have been more heavily peated than others ~~is~~ is not what makes the final blend a better quality, it is how all these flavours and characteristics integrate. The blender must have an ~~very~~ exceptional understanding not only of the 'house style' but also of each individual cask. He will know exactly the flavours, the structure, the body and the character that he wants to achieve. He must judge how best to achieve that. Blending is an art. Consistency is key. The malt whisky must taste just the same as another bottle, even if it ~~is~~ that bottle was made a year before.

June 2012

Question 1 – Maker's Mark Bourbon, Jameson Irish Whiskey, Highland Park 12 year old Single Malt

Answers: 176

Passes: 130 (74%)

This was a very good set of results. However, some candidates lost unnecessary marks because they did not read the question at the top of the paper. This is a common problem and one that is totally avoidable and unnecessary. Candidates were told that all three samples were whiskies/whiskeys. In addition to the description of each sample, candidates were required to identify the country of origin, the style within the category and give an assessment of quality. Although most candidates picked up the peat on the Malt Whisky and identified this as such, those who did not read the question obviously came unstuck in these concluding sections. Incorrect identifications ranged from the understandable (Cognac, Armagnac) to the downright bizarre (Gin). Some of those who had read the question, assumed "whiskies/whiskeys" could only mean Scotland.

The following candidate achieved high marks. The descriptions are good, only losing a few marks here and there. All three spirits have been identified correctly and the assessment of quality makes some good observations.

SPIRIT No 1

Appearance: (3 marks)

Clear, med amber, showing legs.

Nose: (7 marks)

Clean. Med intensity of caramel, burnt sugar, vanilla, oak, toffee. Coconut
~~is~~ Matured. After adding water, more nuttiness is shown.

Palate: (10 marks)

Dry, med intensity on palate with similar notes as on nose. Caramel,
burnt sugar, oak, smoke, cinnamon, ~~and~~ nutmeg, clove, spices.
Med body, ~~and~~ warming alcohol, med length. ~~There is a balance~~
~~of flavours, together with med length in finish to offer a good~~
~~balance~~

Country of origin: (1 mark) United States

Style within the category: (1 mark) Bourbon

Assessment of quality: (3 marks)

This is a good quality spirit showing complex aromas that are
reflected similarly in its flavours. There is a good balance in
flavours with body weight and alcohol. Slightly warming alcohol
prevents it to become ~~very~~ very of good quality.

SPIRIT No 2

Appearance: (3 marks)

Clear, med(-) copper, showing legs.

Nose: (7 marks)

Clean. Med(-) intensity on nose, with notes of apple, floral, cereal, grains, ethanol, slight citrus, a bit of vanilla. Matured. After adding water, more fresh fruits and apple character is showing.

Palate: (10 marks)

Dry. Med(-) intensity on palate with flavours of smoke, floral, cereal, touch of ethanol-y quality, a bit of vanilla and oak on finish. Med(-) body, alcohol is slightly warming. Med(-) length. Slight heat on finish, otherwise finishes clean with subdued floral & citrus notes.

Country of origin: (1 mark) Ireland

Style within the category: (1 mark) Irish whiskey

Assessment of quality: (3 marks)

This is an acceptable quality spirit. Finish is clean but aromas & flavours are lacking complexity & intensity. Finish is slightly hot. It is a clean simple spirit that is suitable in mixing & cocktails as it doesn't interfere with aggressive flavour profile.

SPIRIT No 3

Appearance: (3 marks)

Clear, med(-) copper, showing legs.

Nose: (7 marks)

Clean. Med(+) intensity on nose with notes of smoke, peat, seaweed, iodine, Matured. After adding water, smoke and peat character remain prominent, notes remain similar.

Palate: (10 marks)

Dry - Med(+) intensity. Flavours include peat, citrus peel, floral, seaweed, smoke, ~~grainy~~ savory quality. Alcohol integrated. Med body with a med(+) length. Finishes clean and balanced.

Country of origin: (1 mark) Scotland

Style within the category: (1 mark) Single malt whisky

Assessment of quality: (3 marks)

This is a very good spirit. It is balanced, with good intensity on both nose & palate. Alcohol is nicely balanced with a med(+) length lingering with flavours of smoke, peat & floral.

Question 2 – In relation to spirits, write about each of the following:

- a) Parts of a pot still
- b) Fruit spirits not made from grapes or apples
- c) Marc

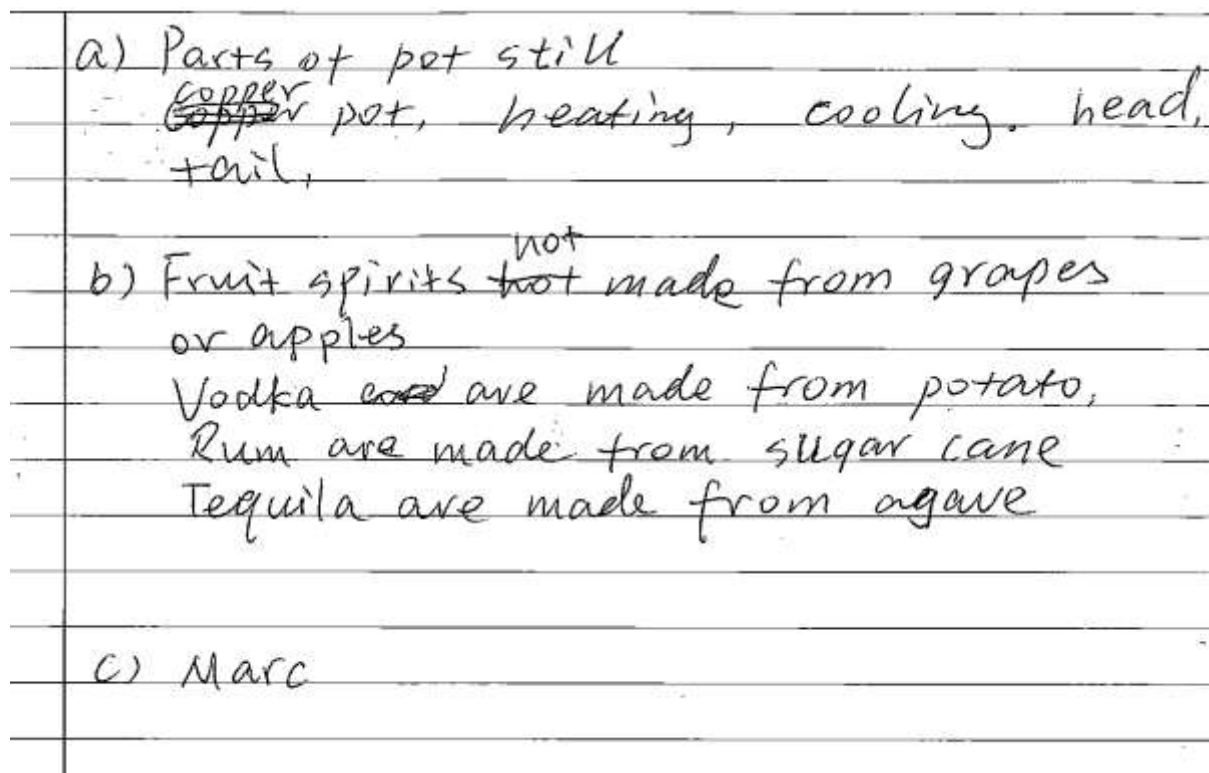
Answers: 176

Passes: 78 (44%)

There were a number of reasons for low marks in this question. Descriptions of the parts of a pot still were surprisingly poor for such a fundamental subject. Many candidates included diagrams, in some instances this was all that was submitted with no explanation of what the various parts did, how they worked or what effect they had on the spirit that was produced. Diagrams are certainly helpful in getting information across, but will never suffice on their own. The best responses were on section b) relating to fruit spirits, but even here there were glaring errors such as categorising Tequila as a fruit spirit. The weakest responses were on Marc, with many candidates failing to make the connection that this is a brandy made from pomace. Therefore a generic pomace brandy description would have generated the basic facts required for a pass, with better marks awarded where candidates included information specific to Marc.

It is clear in all examinations that there are some candidates who are capable of passing this examination but simply did not do enough revision, or concentrated on the wrong parts of the syllabus. There are also those who clearly should not be doing this qualification at all. The following script is one such candidate, whilst the next is an example of the candidate who has realised their failure is of their own making.

Example of candidate who has clearly underestimated the level of this qualification. This was the sum total of this candidate's submission:



Not only is this disastrously brief and superficial, it also manages to contain nothing of any relevance in section b).

Example of a candidate who recognises their shortfall and does so with a sense of humour!

Pot Still - The pot still is a discontinuous pot which is made for batch process in distilling. In Cognac it is known as Chouffe tin.

The pot still will have a different shape bulb, which will be either a dome shape which will have an effect on the flavour of the spirit. The pot is made out of copper, which interacts with the spirit. The more contact "conversation" the more complex the spirit.

The part of the pot still the Bonne chauffe pot a copper snake rack.

The pot still will give lower strength spirit of 50-60% and will give concentrated flavour.

Pot stills are used in Cognac, for Calvados d'Age, Juraillon Rum, and in Barbados, they use a wooden pot, with a copper head.

Armagnac once used a pot still which only consisted of 3-5 plates which made a heavy concentrated spirit.

I know this is basic, + I should know this but I was revising everything apart from the basics! Ask me about Pisco or Tequila! I even drew and practiced all types of column stills

See you on the resit!

Gutted

Unfortunately the final paragraph of this has not reproduced very clearly. It reads as follows:

"I know this is basic and I should know this but I was revising everything apart from the basics! Ask me about Pisco or Tequila! I even drew and practiced all types of column stills.

See you on the resit (drawing of an "unsmiley" face). Gutted."

Unit 5, Sparkling Wines

The examination for Unit 5 was run on three separate occasions in the academic year 2011/12, in November, March and June. The overall pass rate for the unit as a whole for all these dates combined was 75%.

The questions and individual pass rates for each of the three examination dates were as follows:

November 2011

| | |
|---|--------------------------|
| Question 1 – Segura Viudas Brut Rosado Cava NV, Segura Viudas Brut Reserva Cava NV, Anna de Codorníu Cava NV | |
| <i>Answers: 158</i> | <i>Passes: 115 (73%)</i> |

Of the three smaller units, it is the sparkling wine unit that tends to generate the best results, and this was no exception.

The focus on this paper was the candidates’ ability to assess the quality of three different Cavas. A number of candidates failed to read the instructions at the top of the examination paper that told them that these three wines were all from the same country. Since candidates were not required to identify the wines, this tended to make little difference to their result provided the quality assessment was well argued and the descriptions themselves were reasonably accurate.

| | |
|--|--------------------------|
| Question 2 – In relation to sparkling wine, write about each of the following: | |
| <ul style="list-style-type: none"> a) Loire Valley b) Traditional method Rosé c) Sekt | |
| <i>Answers: 158</i> | <i>Passes: 110 (70%)</i> |

As with the results for the tasting question, this was also a very good pass rate. Low marks were often the result of candidates not paying enough attention to the specific wording of the question. For example, there was no point in simply describing the “traditional method” of Champagne production when examiners were looking for an explanation of how this differs in the case of the production of rosé. Many only considered rosé in the context of Champagne. The examiner was expecting some discussion of Cava and Cremant at the very least. Similarly, some candidates strayed from the syllabus in respect of the Loire Valley, including information relating to still wines produced in the Loire. Those who restricted their answer to sparkling wine often failed to consider all the sparkling wines produced and therefore missed

out many other important facts such as explaining how production of the various wines differs or is affected by other factors such as climate and soil.

March 2012

| | |
|---|--------------------------|
| Question 1 – Conde de Caralt Brut Rosado Cava, Jack Rabbit Sparkling White Zinfandel, Champagne Henri Chauvet Rosé | |
| <i>Answers: 263</i> | <i>Passes: 197 (75%)</i> |

This was a very high pass rate with a good spread of results across the three pass grades. Clearly the emphasis here was on quality, with three rosé wines with very different price tags.

It was in the assessment of quality that most candidates lost marks as it is clear that many still do not understand what it is that defines “quality” such as complexity, length, balance, concentration etc. Instead many candidates write about the “drinkability” of the wine, or the method of production. The following extracts from candidates’ papers illustrate this point:

“definitely not traditional method, induced CO₂, will not age, meant for immediate consumption”

“very good wine that can be enjoyed right now but will definitely improve with more ageing, drink now – 2020”

“good quality, aged sur pointe \$50”

With the requirement to describe the colour of three different rosé wines, there was quite a lot of inaccuracy and vagueness. The colours for rosé wine given in the WSET Systematic Approach were perfectly adequate for describing these wines. However, many candidates managed to confuse the issue considerably as the following excerpts show:

“colour is red, pink, amber”

“a bright strawberry colour”

“apricot-peach hue in the core”

“med (-) intense pale ruby (slight garnet)”

This last example is particularly vague, not only in terms of the colour, but also the intensity.

The following two scripts show a good contrast between a fail grade, where the tasting notes are short, superficial, not particularly accurate and presented in the form

of "bullet points" and a merit grade where the candidate has achieved good marks on the provenance of the wines and the assessment of quality but lost some marks on the structure of the wines due to inaccuracy.

Fail grade script:

WINE No 1

Appearance: (3 marks)
Condition - clear
Colour - pink
intensity - medium +
mousse - bubbles medium

Nose: (7 marks)
clean
medium + intensity
~~medium~~ fruity - cherries

Palate: (10 marks)
Sweetness -
acidity - medium
intensity flavours - medium +
length - medium
fizziness - cherries, straw berries, quite spicy
developed notes on the finishing
alcohol - medium (well balanced)
body - medium

Country and region of origin: (2 marks)
Cava 1 CATALUNYA

Assessment of quality: (3 marks)
Good quality.
Ready to drink now

Fail grade script:

WINE No 2

Appearance: (3 marks) Condition - clear
colour - pink
intensity - medium +
mousse: bubbles

Nose: (7 marks)
clean
intensity - medium +
cherries, strawberries, floral (such as roses)

Palate: (10 marks)
sweetness - off dry
acidity - medium +
alcohol - medium - (balanced)
body - medium
developed → (can't improve)
length - medium

Country and region of origin: (2 marks)
Cremant, France,

Assessment of quality: (3 marks)
good quality

Merit grade script:

WINE No 2

Appearance: (3 marks)

Clean & bright, medium colour intensity of a pale colour
small persistent (medium persistence) bubbles legs

Nose: (7 marks)

Clean, medium (to) intensity fresh bright sherbetty aromas
of raspberry apple with some red fruit, blackberry
~~and~~ some ~~some~~ ~~some~~ ~~some~~ slightly affected
and citrus,

Palate: (10 marks)

Medium sweet, medium acidity and a creamy mousse, medium
level of alcohol, and a medium body, medium intensity of
flavour and a medium length. Slightly organically affected
flavour of sherbet & raspberries, strawberr, raspberry, little
aliphatic character on palate

Country and region of origin: (2 marks)

Australia, Great Rivers

Assessment of quality: (3 marks)

~~Good~~ Acceptable, an average commercial style of
sparkling wine without a great deal of complexity
but a balance of flavour with body & alcohol.

Fail grade script:

WINE No 3

Appearance: (3 marks) Condition - clear
colour - salmon
bubbles - persistent, long
intensity - medium

Nose: (7 marks)
clean
intensity - medium +
mouth - medium; Creamy.

Palate: (10 marks)
Sweetness - dry
acidity - medium +
body - medium
flavours - strawberries, quite bready notes,
cherries
→ developed
length - medium +

Country and region of origin: (2 marks)
Champagne, France

Assessment of quality: (3 marks)
Good quality.
Drink now but could keep longer.

Merit grade script:

| |
|---|
| <p>WINE No 3</p> <p>Appearance: (3 marks)</p> <p>Clear & bright, medium (-) color intensity, salmon. Small, persistent (medium persistence) bubbles & legs</p> <p>Nose: (7 marks)</p> <p>Clean, pronounced intensity, red fruit aromas of raspberry citrus/lemon, yeasty with a vegetal character, a hint of smoke, autolytic character + evidence of ageing developing</p> <p>Palate: (10 marks)</p> <p>Dry no high acidity, creamy mousse, medium alcohol + medium body long length, pronounced intensity of biscuit toast + yeast but still with a red fruit character of raspberry/ strawberry + redcurrant + lemon, creamy dairy quality.</p> <p>Country and region of origin: (2 marks)</p> <p>France Champagne</p> <p>Assessment of quality: (3 marks)</p> <p>Very good, elegant and typical of its style, with acid, fruit + alcohol all in balance and a clear structure, very good length + flavor complexity from layers of fruit + secondary aromas</p> |
|---|

Question 2 – In relation to sparkling wine, write about each of the following:

- a) Transfer method
- b) Prosecco
- c) Vintage Champagne

Answers: 264

Passes: 187 (71%)

This was a good pass rate with most candidates able to cover the most important facts, particularly in sections a) and b). Responses were weaker on vintage Champagne, with many only able to come up with the most basic principles of "grapes from a single vintage" and "36 months ageing". Those who achieved higher marks in this section showed a better understanding of the effects of autolysis and did more to differentiate between this wine and NV Champagne.

The following candidate gave excellent responses in all three sections.

| | |
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| 2a) | <p>THE TRANSFER METHOD RELIES ON A SECOND FERMENTATION OF BASE WINES BLENDED TOGETHER AND FERMENTED IN BOTTLE BEFORE BEING MOVED TO TANK BEFORE RIDDLING</p> <p>THE PROCESS IS AS FOLLOWS: ONCE A CUVEE OF BASE WINES HAS BEEN BLENDED, THE WINE WILL UNDERGO SECOND FERMENTATION IN BOTTLE THROUGH THE ADDITION OF LIQUEUR DE TIRAGE (SUGAR, YEAST AND ADJUSTING ADJUSTS). THE YEAST WILL BE CULTIVATED TO WORK IN AN ACIDIC AND ALCOHOLIC MEDIUM THAT CAN ALSO FLOCCULATE EASILY (E.G. PREMIER CUVEE). THE AMOUNT OF SUGAR ADDED WILL BE AROUND 20 g/L TO PRODUCE APPROX. 5 ATMOSPHERES OF CO₂ PRESSURE IN BOTTLE. RIDDLING AGENTS WILL INCLUDE TANNIN AND BENZOIC</p> <p>SECOND FERMENTATION IS COMPLETED IN BOTTLE OVER 6-8 WEEKS USUALLY AT LOW TEMP (E.G. 12°C). AGEING ON THE LEES, DEPENDING ON REGIONAL WINE LAW AND/OR STYLE, MAY THEN FOLLOW.</p> <p>THERE IS NO NEED FOR RIDDLING BECAUSE, WHEN DESIRED, THE CONTENTS OF THE BOTTLE WILL BE TRANSFERRED TO A PRESSURIZED TANK. IN TANK THE DEAD YEAST IS THEN FILTERED OUT AND THE WINE WILL THEN BE BOTTLED (STILL AT 5 ATMOSPHERES OF PRESSURE) WITH A COUNTER-PRESSURE FILLER. BEFORE THIS, HOWEVER, THE WINE WILL RECEIVE DOSEAGE IN TANK TO THE DESIRED LEVEL AND INTEGRATION OF DOSEAGE IS USUALLY COMPLETED BEFORE BOTTLING.</p> <p>TRANSFER METHOD, KNOWN AS TRANSVERSAGE, IN CHAMPAGNE, IS USED IN CHAMPAGNE FOR SPILTS AND FOR BOTTLE FORMATS LARGER THAN MAGNUM -</p> |
|-----|---|

2a) - IS FOR METHUSELAN THROUGH TO NEUCHÂTEL. THE TRANSFER METHOD IS ALSO FAVOURED IN MANY NEW WORLD COUNTRIES - e.g. 80% OF AUSTRALIAN SPARKLING IS TRANSFER - AS IT IS MORE COST EFFECTIVE, BY ELIMINATING REMAINS AND THE NEED FOR MECHANICAL EXPANSIVE GYRO-PALLETES WHICH ARE BEYOND THE REACH OF SMALL WINERIES.

THE OTHER OBVIOUS ADVANTAGE WITH TRANSFER IS SECOND FERMENTATION IN BOTTLE COMPLEXITY. WINES MAY BE LABELLED 'BOTTLE-FERMENTED' RATHER THAN 'FERMENTED IN THIS BOTTLE'.

2b) 'PROSECCO', UNTIL RECENTLY, HAD BEEN THE NAME OF A GRAPE VARIETY RESPONSIBLE FOR THE SPARKLING WINES OF THE PROSECCO DOCS. OUTSIDE OF THE PROSECCO DOC, HOWEVER, THE GRAPE MUST NOW BE CALLED 'GLERA'. PROSECCO, THEREFORE, IS A PERMITTED VARIETY - ALONG WITH VERDISO³ USED IN THE SPARKLING WINES OF THE PROSECCO DOC AS WELL AS FROM 2009, CONEGLIANO - VALDOBBIADENE DOC AND, FROM 2010, CONEGLIANO - VALDOBBIADENE PROSECCO SUPERIORE DOC.

MOST PROSECCO IS GROWN ON STEEP SLOPES IN THE VENETO, WITH THE DOC CENTRED ON TREVISO. THERE ARE VARIOUS TRELLIS-SYSTEMS WITH HANG-HARVESTING PREFERRED. MOST PROSECCO GRAPE GO INTO SPARKLING WINE PRODUCTION FOLLOWING TANK METHOD, ALTHOUGH SOME BOTTLE-FERMENTED EXAMPLES EXIST (e.g. COLLESALE). MOST PROSECCO IS MADE IN BULK AND TANK METHOD SUITS PRESERVATION OF ITS PEAR AND FICHALE AROMAS. DOSAGE FOLLOWS EU GUIDELINES AND MUCH PROSECCO IS BRUT, EXTRA SEC OR SEC.

ONE IMPORTANT SUB-ZONE FOR PREMIUM PROSECCO IS CARTIZZE (only 106 ha). CARTIZZE SUPERIORE

| | |
|--------------------------|---|
| <p>2b) CONTINUED</p> | <p>PROSECO IS A POLK PROSECO WINE WHICH IS OFTEN SEC IN STYLE. THE NEW 'GIVE' DESIGNATION REQUIRES THAT THE COMMUNE IS IDENTIFIED ON THE LABEL. THE OVERALL PROSECO REGION HAS ABOUT 15 COMMUNES OVER 20,000 HA. EXPANSION IN PRODUCTION IS NOTABLE WITH 60.8 MILLION BOTTLES OF PROSECO PRODUCED IN 2011. PROSECO PRODUCTION HAS GROWN BY 40% FROM 2004-2011 PIONEERED BY BISOLO AND MUONETTO. PROSECO MAY ALSO BE RELEASED IN EITHER FRIZZANTE OR SPUMANTE PRODUCED / STYLES.</p> |
| <p>2.c)</p> | <p>VINTAGE CHAMPAGNE INDICATES A CHAMPAGNE MADE ONLY IN A SPECIFIC VINTAGE YEAR. TYPICALLY, OWING TO CHAMPAGNE'S MARGINAL CLIMATE, MOST PRODUCERS WILL NOT RELEASE A VINTAGE WINE EVERY YEAR. RECENT STRONG VINTAGES INCLUDE 2004, 2002, 1999, 1998 AND 1996 BUT YEARS SUCH AS 2003 AND 2009 HAVE BEEN CONTROVERSIAL YEARS IN WHICH TO MAKE VINTAGE CHAMPAGNE OWING TO EXTREME WEATHER (e.g. WARMER TEMPERATURES). VINTAGE CHAMPAGNE MUST BE AGED FOR A MINIMUM OF THREE YEARS BEFORE RELEASE AND MANY WINES WILL SPEND SPEND LONGER ON THE LEED OR IN BOTTLE AFTER OR GORGEMENT BEFORE RELEASE. MANY PRESTIGE CUVEES ARE VINTAGE CHAMPAGNES BY DEFINITION, FOR EXAMPLE: POL ROGER'S CUVEE SIR WINSTON CHURCHILL, LVMH'S LA GRANDE PAME + DOM PERIGNON WHICH ARE VINTAGE WINES</p> |

PAR EXCELLENCE. SUCH VINTAGE CHAMPAGNES ARE
 SUPER-PREMIUM IN PRICE. DOM PERIGNON WAS
 LAUNCHED IN 1928 AND CRISTAL GOES BACK TO THE
 19TH CENTURY AND TSAR NIKOLAI II. HOWEVER,
 RUSSIA IS NOW AGAIN A SIGNIFICANT MARKET
 FOR VINTAGE CHAMPAGNE ESP. PRESTIGE CUVÉES.
 THE LATTER ACCOUNTED FOR 16.8% OF VALUE
 IN THE RUSSIAN CHAMPAGNE MARKET IN 2011.
 VINTAGE CHAMPAGNES ARE OFTEN BLENDS OF
 GRAPE BUT MAY ALSO BE SINGLE VARIETAL
 AND SINGLE VINEYARD, E.G. KRUG'S CLOS
 DE MESNIL, ONLY MADE IN CERTAIN YEARS
 FROM 2 HA CHARDONNAY. 'RD' IS AN
 IMPORTANT CATEGORY FOR VINTAGE CHAMPAGNE
 E.G. MOËT'S 1911 'RD' RELEASED LAST YEAR.

June 2012

| | |
|--|-------------------|
| Question 1 – Canevel Extra Dry Prosecco, Vouvray Mousseaux NV, Roederer Quartet NV | |
| Answers: 272 | Passes: 243 (89%) |

This was an excellent set of results, not just from the point of view of the high pass rate, but also because more candidates passing did so with either a merit or distinction grade.

The rise in popularity of Prosecco in recent years no doubt made this a fairly easy wine to pick out and the distinctive autolysis, tertiary characteristics and level of complexity on the Roederer clearly defined this as a quality Champagne. It was the Vouvray that was more challenging.

The concluding part of this question required candidates to identify the method of production for one mark and explain why they had reached this conclusion for another four marks. In many instances there was little in the way of convincing evidence cited in this concluding section.

| | |
|---|--------------------------|
| Question 2 – In relation to sparkling wine, write about each of the following: | |
| a) Prestige Cuvée Champagne b) Franciacorta c) Australia | |
| <i>Answers: 271</i> | <i>Passes: 172 (63%)</i> |

This was an uninspiring set of scripts with most candidates achieving a basic pass grade, and some extremely low marks from those awarded a fail (unclassified) grade. These candidates would do well to read the section at the beginning of this report that explains the different levels of assessment and how these change between the various WSET qualifications, as many of them have not progressed beyond the factual recall of the WSET Level 3 qualification, submitting answers that are brief and superficial.

With the paragraph sections in Units 4, 5 and 6 it is a good idea to think in terms of trigger words or questions. For example, who, what, where, why, how? All of these would have generated relevant information in response to these questions. Taking Prestige Cuvée Champagne as an example:

- What is it?
- Where is it produced? (It is not sufficient to state “in Champagne”, but specifically where within the region are the grapes sourced? i.e. single vineyard wines etc)
- Why is it produced? What is its purpose?
- How does production of this particular wine differ from other Champagnes?

This is not going to provide all the information relating to this section, but will certainly go a long way to achieving this. Too many candidates simply wrote a generic answer on Champagne or described what a “cuvée” was, neither of which answered the question that was set.

The section on Franciacorta would work well using the “six factors” as the basis for the answer, (grape variety, climate, soil, weather, viticulture, vinification, maturation) along with a description of the wine style.

Many responses on Australia were too narrow in their focus, either writing only about sparkling Shiraz or only about premium quality traditional method wines. The best candidates structured their answer to compare the vast range of styles and quality levels produced throughout Australia.

Unit 6, Fortified Liqueur Wines

The examination for Unit 6 was run on three separate occasions in the academic year 2011/12, in November, March and June. The overall pass rate for the unit as a whole for all these dates combined was 65%.

The questions and individual pass rates for each of the three examination dates were as follows:

November 2011

| | |
|---|--------------------------|
| Question 1 – Henriques & Henriques 10 year old Sercial, Henriques & Henriques 15 year old Malmsey, Henriques & Henriques full rich Madeira | |
| <i>Answers: 211</i> | <i>Passes: 118 (56%)</i> |

Once again, the emphasis here was on the candidates’ ability to differentiate between three quality levels of the same style of wine – in this case Madeira. In a number of instances candidates did not read the question carefully enough and therefore missed that these were all from the same region, and this became evident when it came to identifying grape varieties. There were also difficulties when it came to the assessment of quality. Wine 3 caught a number of candidates out, either because they mistook the “fullness” for “richness” and therefore quality or because they assumed it would be the best wine because it was presented at the end of the line up.

Despite these problems, this was not a complete disaster in terms of the pass rate.

| | |
|---|--------------------------|
| Question 2 – In relation to fortified wine, write about each of the following: | |
| <ul style="list-style-type: none"> a) Douro planting systems b) Languedoc c) VOS and VORS Sherry | |
| <i>Answers: 209</i> | <i>Passes: 103 (49%)</i> |

Results for this question were worse than the tasting, resulting in a poor result for this unit as a whole.

The large number of candidates achieving very low marks on this paper, suggests that many of them either did not prepare sufficiently for this exam, or simply are not yet ready for a qualification of this level. A lot of the low marks were the result of candidates writing too much irrelevant, generic information rather than answering the

specific question that had been set. For example, there was no point in writing about the various grape varieties used in Port production or methods of fortification when examiners were looking for descriptions of planting systems. Similarly, descriptions of the various styles of Sherry would not have generated a pass grade in respect of section c).

The following candidate achieved a pass grade. The responses are not particularly extensive, but they are full of facts that are correct and relevant, showing that content is more important than quantity.

| | |
|-----|--|
| (a) | <p>The Douro has 3 main systems of planting. The first are 'Socalcos' which are terraces dug into the Schist/Granite soil of the Douro valley. Stone walls protect these terraces to stop soil erosion. Stone walls are, however, quite obstructive which do not allow for mechanisation so human labour is required. The vine density of this system is also high, around 6000 vines per hectare which means that the terraces need frequent weeding, to avoid competition for water.</p> <p>The 2nd system of 'Pateuadas' originated in the 1970's and these are of ramps, held together by vegetation. While the ramps are quite large, this means vine density is reduced but it does allow for small tractors to work the area. The density of vines is about 3500 per hectare.</p> <p>The 3rd option is 'Vinhaes ao alto' or planting up and down a hillside in a vertical row, rather than horizontal. This has the disadvantages of increased soil erosion, and potential worker fatigue although some mechanisation is possible within this system.</p> |
| (b) | <p>The Languedoc is a region in the South to South West of France. It is known for its fortified wines with such examples as Muscat de Beaumes de Venise which is made from Muscat of Alexandria as well as Muscat à Petit Grains, grape varieties, as well as white wines. It has a well-known range of fortified which is the only one that does so as the Muscat de Beaumes de Venise uses the Muscat à Petit Grains grape variety.</p> <p>As well as white wines, it has a well known range of fortified red wines based on the Grenache ^{Noir} grape variety. The wines of Banyuls and Rasteau AOC come in two styles - a fruity one where the fortification is done early in the vinification process to keep the fruit compounds and residual sugar, and a 'Rancio' style which tends to have a more stewed/oxidised fruit nature. Banyuls must be 50% of Grenache Noir and a Banyuls Grand Cru must have 75%. It is less famous neighbour of Maury also produces strong, full bodied red wine fortified wines of Grenache. The area has a general continental climate.</p> <p style="text-align: right;">P.T.O</p> |

| | |
|-----|--|
| (C) | <p>VOS (Vincos Optimum Signatum) and VORS (Vincos Optimum Reservato Signatum) or Very Old Sherry and Very Old Rare Sherry are recent developments in the industry to offer a premium product. These are new legal measures where the sherry has to be at least 20 years old in the case of VOS and 30 years in the case of VORS. Carbon dating is used to determine the actual age of the sherry as, due to the fractional blending system of the delata, the contents will be a mixture of ages. This makes it difficult for the industry to have a 'Vintage' product (entire lot of practices) but this introduction, as well as having aged sherries at 17 and 18 year old, is one way to deliver a high quality product with recognizable, legal classification.</p> |
|-----|--|

March 2012

| | |
|---|-------------------|
| Question 1 – Quinta da Ervamoira 10 year old Tawny Port, Los Arcos Dry Amontillado Sherry, Stanton & Killeen Classic Rutherglen Muscat | |
| Answers: 193 | Passes: 147 (76%) |

Despite the high pass rate, the examiner commented that many candidates submit “lazy” tasting notes. This was either because they were in the form of bullet point lists rather than analytical descriptions, or because of simplistic comments under the assessment of quality, where candidates often used terms such as “balanced” or “complex” but made no attempt to explain how or why these wines are balanced or complex.

Marks were also lost on the appearance where candidates used unorthodox colour descriptions and the Rutherglen Muscat was often mistaken for PX.

| | |
|---|-------------------|
| Question 2 – In relation to fortified wine, write about each of the following: | |
| <ul style="list-style-type: none"> a) Colour extraction in Port production b) Oloroso c) Maturation of Madeira | |
| Answers: 193 | Passes: 145 (75%) |

This was a good pass rate, but the very wide span of marks from 9% to 80% showed that there were a number of candidates who are a long way short of the standard required for a pass grade in this qualification.

All three sections of this question focused on very straightforward factual recall, yet there were still some glaring gaps in candidates' knowledge or basic errors. For example, in terms of colour extraction in Port production, far too many candidates only wrote about the use of lagares without considering the role of other practices such as autovinifiers, piston plungers, pumping over or rotovinifiers.

June 2012

| | |
|--|--------------------------|
| Question 1 – Valdespino Tio Diego Dry Amontillado, La Ina Fino, Gonzales Byass Alfonso Oloroso Seco | |
| <i>Answers: 377</i> | <i>Passes: 311 (82%)</i> |

This was a very good result with an equal split between pass and merit grades and a good number of distinctions.

Common criticisms from the examiner were that some candidates are too vague in their use of terminology such as “*solid acidity*”, “*just off-dry*”, “*slightly sweet*”, “*decent length*”. Other write tasting notes are too informal or journalistic in style rather than objective and analytical.

Another area of weakness was in the concluding part of the tasting note, where candidates were required to identify the style within the category and explain what evidence in their tasting note supported this conclusion. Many candidates were unable to work out what was required here. The following candidate was not one of these, with some good analytical evidence put forward.

WINE No 1

Appearance: (3 marks)

2
Bright and clear. The colour is amber and has a light intensity. The wine has a small watery rim and leaves legs down the glass.

Nose: (7 marks)

The nose is clean and fully developed. It has a medium flavour intensity with flavours of toffee, caramel, dried raisins, dried figs, deliberate oxidation and ~~light~~ honey. It has complex flavours.

Palate: (10 marks)

On the palate, this wine is dry and has been fortified to a high level of alcohol. It has medium acidity and a medium body. It has medium flavour intensity and shows a lot away of complex flavours such as deliberate oxidation, hazelnuts, toffee, caramel, dried fruits (figs, raisins) honey. It has a big length.

Style within the category: (1 mark)

Amontillado

What evidence in your tasting note supports this conclusion? (4 marks)

Amontillado is a fine ~~that~~ for which the ~~flor~~ has died and goes up oxidising. As the wine oxidise, the colour turns amber like this wine and the wine develops more complex flavours such as hazelnuts, toffee, dried fruits. All ~~the~~ these flavours that we find in this wine. The wine also has a high acidity, which characterises Amontillado. The body is medium like a fine Amontillado.

WINE No 2

Appearance: (3 marks)

Bright and clear wine. The colour is pale lemon. It has a broad watery rim and the wine leaves legs along the glass.

Nose: (7 marks)

The nose is clear and fully developed. It has a medium flavour intensity with flavours of green apples (fresh and simple), citrus (lemon), hazelnut, ~~almond~~ and a flor. It also has some savoury notes.

Palate: (10 marks)

On the palate, this wine is dry with a high acidity. It has been fortified to a high degree of alcohol. It is medium bodied and medium flavour intensity of fresh green apples, citrus (lemon and lime), hazelnut. It has some savoury notes and a distinctive flor. This wine has a racy acidity and a medium length.

Style within the category: (1 mark)

Sherry - Manzanilla 1

What evidence in your tasting note supports this conclusion? (4 marks)

Manzanilla Sherry is aged under flor (a protective yeast layer which gives Manzanilla its distinctive flavour) in the town of Sanlúcar de Barrameda where flor is active all year around. This wine shows typicity through the notable presence of flor and its high acidity and savoury notes typical of Manzanilla.

WINE No 3

Appearance: (3 marks)

Bright and clear wine. The colour is amber and has a ~~medium~~ medium intensity. The wine has a small watery rim and leaves legs along the glass.

Nose: (7 marks)

The nose is clear - It is fully developed and has no pronounced flavours of deliberate oxidation, caramel, toffee, orients fruits (dried figs - dried raisins), honey.

Palate: (10 marks)

This wine is dry and has a medium⁺ acidity. The body is medium⁺. It has been fortified to a high level. It has medium⁺ flavour intensity, with distinct aromas of deliberate oxidation such as toffee, caramel, honey, hazelnut, dried fruits (figs (raisins)). It is complex, and has rich and smooth. The length is long.

Style within the category: (1 mark)

~~Pale~~ ~~orange~~ Oloroso

What evidence in your tasting note supports this conclusion? (4 marks)

~~Pale orange~~ is one of the best sherry produced. Oloroso is a sherry which is deliberately oxidised. The casks are only part filled so that the wine ages in contact with the air therefore developing similar flavours as the ones found in this wine (toffee, honey, caramel). Oloroso is made from press wine and is therefore fuller and richer than other sherries. It is fuller in body like this wine.

| | |
|--|--------------------------|
| <p>Question 2 – In relation to fortified wine, write about each of the following:</p> <p>a) Rancio b) LBV c) Rutherglen</p> | |
| <p>Answers: 374</p> | <p>Passes: 222 (59%)</p> |

This was a fairly mediocre set of scripts with a clear divide between those candidates with sound knowledge and those who have a lot more work to do as evidenced by more than 20% of candidates achieving a fail (unclassified) grade. Each of the three sections had its own pitfalls, but by far the weakest section was “rancio”. This was described by some candidates as “*a viticultural practice*”, “*a style of Eau de Vie*”, “*flor helps develop rancio flavours*”. Even the other sections had their problems – Rutherglen was located in South Africa or Cyprus and LBV was described as “*bottle matured Port*”. Responses on LBV also tended to be too generic – simply listing the Port grape varieties and describing the Port method of fortification rather than explaining how this style of Port differs from others in terms of production, maturation, style etc.