

**Full Report on a visit to the cool climate vineyards of Oregon, USA and the 7th
International Cool Climate Symposium in June 2010, sponsored by a Post-Graduate
Award from the Farmers Club Charitable Trust**

**What the UK wine production industry can learn
from the cool climate wine region of Oregon, USA**

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15th August 2012

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1. Report summary

This report focusses on cool climate wine production in the region of Oregon, USA; the techniques and technologies used that have provided its wine with a global reputation for quality; and how UK wine producers can learn from the Oregon producers. It covers production methods, education, sustainability, and industry structure.

The UK wine production industry is similar to Oregon in many ways;

- Climate, particularly rainfall
- Oregon is currently larger in planted area, but the UK industry is growing fast
- History and age
- Grape varieties grown and disease pressures.

However, Oregon has developed into a world-class wine-producing region, with an 'eco-friendly' reputation; whilst the UK wine industry has only recently started to emerge from its 'hobbyist' stage.

The main objectives of this study are to:

- Compare winemaking and viticultural techniques used by Oregon and UK producers
- Evaluate the LIVE (Low Input Viticulture and Enology) sustainability programme used in Oregon and consider its suitability for the UK
- Review relevant information from the 7th The International Cool Climate Symposium in Seattle
- Compare educational and research programmes regarding Viticulture and Oenology in Oregon with the UK
- Assess the Oregon wine industry structure, identity and governance.

The knowledge gained from this study is intended for dissemination to wine producers and future wine producers through my teaching to Wine students at Plumpton, the courses I run for WineSkills industry training programme, and an article in the UK wine industry's magazine 'The Grape Press'.

2. Introduction

Although there are records of wine production in the UK dating back to the Romans, the revival of wine production in the UK started in the late 1950s. Until recently, wine producers in the UK were

mostly considered hobbyists, but in the last few years the industry has started to develop, and its scale and reputation for producing a quality product are developing significantly.

The area under vine in 2011 was estimated at 1384 hectares, (www.englishwineproducers.com) which is an increase of over 50% from the 2005 area. Volumes of wine are expected to rise quickly as newly planted vineyards come into production, and general opinion estimates that around 4 million bottles will be produced by 2015. Much of the area under vine is for sparkling wine production, with the most planted varieties being Chardonnay and Pinot noir. The increase in hectares is mainly due to the expansion of larger commercial vineyards and the planting of new large-scale operations, rather than the increase in smaller or amateur viticultural enterprises (*data from www.englishwineproducers.com*).

The increasing success of English wine is mostly due to the high quality of the product, as evidenced by the recognition of UK (particularly sparkling) wines in international competitions (see appendix), and also a strong increase in the market for local food products, including wine.

However, the UK wine production industry is still considered to have great potential for further development. The recent international successes, along with a view that climate change will favour grape growing in the UK, has caused an increase of vineyards area, with new, serious, commercial entrants, buying and planting land. One example is a 400-acre planting taking place near Eastbourne over the next few years (see appendix).

This growth brings the diversification of land use, particularly that of poorer land on slopes often not suitable for many crops; local employment and revenue to rural areas from wine sales; and wine tourism.

This expansion of the industry is strongly supported by training and education, provided by the Plumpton College Wine Department. One of its principal activities is the WineSkills training project, which, supported financially by the European Union and Defra through the RDPE scheme, aims to up-skill those involved in wine production in the UK by way of workshops, masterclasses, mentoring, and, more recently, a sustainability scheme. Established in 2010, the WineSkills training project has already had a major influence on the both viticultural practices and winemaking in the UK, as evidenced by improving wine quality (see appendix). Peter Hayes, former President of the International Organisation of Vine and Wine, recently commented that "...WineSkills has advanced the industry perhaps 8-10 years over its 3 years of operation."

Plumpton College also offers the only degree-level Viticulture and Oenology courses in English in Europe, and has many international as well as home students. Past students follow careers in wine production and trade in both the UK and abroad.

The UK wine industry has great potential support through regional and site identification, training and education will help it achieve a profitable and sustainable future. Learning from the successes of similar regions is important to the UK's wine production future.

3. Methods

This report is the outcome of a trip to Oregon, USA, from 17th – 24th June 2010, which comprised of the following itinerary:

Day 1: The Willamette Valley region: Carlton Winemaking Studios, Carlton.

The Willamette Valley region: Willamette Valley Vineyards, Turner

The Dundee Hills region : Argyll Winery, Dundee

The Dundee Hills region: Sokol Blosser Winery, Dundee

Day 2: The Chehalem Mountains region: Adelsheim Vineyard, Gaston

Day 3: The Ribbon Ridge Region: Beaux Frères, Newburg

The Chehalem Mountains Region: Rexhill, Newburg

Day 4: The Southern Oregon region: Henry Estate Winery, Eugene

Chemeketa College (North West Campus), Salem. Craig Anderson, Assistant Dean

June 20-22: Seattle, USA: 7th International Cool Climate Symposium

June 23: Meeting with Chris Serra, Executive Director of LIVE (Low Input Viticulture & Enology)

4. Outcomes

This section is in five parts, and covers the outcomes from the meeting with the Executive Director of LIVE, the visit to Oregon wine regions and the attendance at the International Cool Climate Symposium in Seattle, plus details of how the knowledge is being passed on to students and wine growers (trainees) through Plumpton College and the WineSkills training programme.

4.1 The LIVE sustainability programme

The Oregon wine industry is renowned for being producing wine in an environmentally-sensitive way; its members are world-leaders in organic, biodynamic, and sustainable wine production. The Oregon wine producers visited were all extremely proud of their commitment to sustainability. Their degree of involvement varied: some were growing organically and biodynamically, but most were following the voluntary LIVE (Low Input Viticulture and Enology) programme.

LIVE was founded just over 12 years ago by a group of Oregon growers and is now an internationally-recognised certification of vineyards and wineries in the Pacific Northwest of the United States. The programme combines the three areas of sustainability, encouraging practices that are economically viable, socially supportive and ecologically sound. LIVE has technical committees for both vinegrowing and winemaking, and also provides support, education and resources.

All the vineyard managers and winemakers visited were enthusiastic about the LIVE programme. Successful, well-supported sustainability practices were evident, including; alternate row mowing, cover cropping, raptor perches and solar panels. One comment from an Oregon vineyard manager, "...the programme is easy to use, the website provides a checklist and the technical committees and other members of LIVE are able to help. It starts you thinking about best practice and better ways of doing things."

A few years ago UK wine industry started considering a sustainability framework to support its wine growers. As a direct consequence of the visit to Oregon, the WineSkills training project was able to deliver a Masterclass for the UK wine industry (in November 2010) with three key people from the Oregon LIVE programme. Discussion during this Masterclass indicated that the attendees, representing UK wine producers, found the methods used in the LIVE programme interesting and potentially relevant to the UK.

Following the Masterclass, funding was successfully secured, from Defra and the EU, for the WineSkills

training project to appoint a Sustainability Mentor and a Sustainability Project Coordinator. After industry consultation, WineSkills delivered an initial series of practical workshops, where members of the industry received training to help them improve their practices. During this phase, a Viticulture Technical Committee and a Winemaking Technical Committee were formed with the remit of developing a set of guidelines for 'best practice' along with the Sustainability Project Coordinator. The guidelines are a major part of the WineSkills Sustainability Initiative, which wine growers in the UK are able to access via the WineSkills website www.wineskills.co.uk. The WineSkills sustainability initiative aims to support UK wine producers who wish to produce wine more sustainably, in particular, those who wish to:

- Create and maintain a wine production industry that is economically viable over time
- Maintain the highest level of grape and wine quality
- Implement cultural practices and solve wine production problems in a way that minimises the use of off-farm inputs, such as agricultural chemicals and fertilisers, with the aim of protecting workers, the environment, and society at large
- Promote and maintain biological diversity in the vineyard
- Promote and maintain soil health, fertility, and stability
- Reduce greenhouse gas emissions
- Manage water and energy use more efficiently, and reduce and recycle waste
- Engage in aspects of social responsibility
- Have a safe and healthy working environment

These guidelines are continually being reviewed. Initiated by the visit to LIVE in Oregon, they are now being adapted to the particular growing environment in the UK and the needs of its wine growers.

An understanding of the successful LIVE sustainability programme is now being passed on to undergraduate students at Plumpton College through the Sustainable Wine Production module on the BSc Viticulture and Oenology course.

4.2 Visits to vineyards and wineries in the Oregon wine regions

The vineyards and wineries visited were carefully selected to cover a variety of growing conditions, soil types, different sizes of venture and wine styles in order to provide a good cross-section of the area.

Data from the Oregon Wine Board (www.oregonwine.org) for 2009 shows Oregon has 835 vineyards, just over 300 wineries and total of 19,400 acres (7,850 ha) of vines planted. Pinot noir is the most popular variety, covering 11,523 acres (4,663 ha), with Pinot gris second at 2,829 (1145 ha). The businesses are mainly small (“boutique-style”) and many are family-owned. The average vineyard size is around 23 acres (9.3 ha). In 2009, the average yield from Pinot noir was 2.09 tonnes/acre (5.06 t/ha) and Pinot Gris 2.54 tonnes/acre (6.15 t/ha). The vineyards are mainly on the hillsides to avoid frosts; and mostly on volcanic soils, avoiding the fertile, damp valley floor.

The Oregon wine growers started in a similar way to the UK wine growers, with a handful of hardy pioneers. The region was originally considered too cold for viticulture, but the early growers, such as Susan and Bill Sokol Blosser, of Sokol Blosser Winery, created a support network and forged ahead in the uncharted territory of a new wine region. They shared information on varieties, clones, row widths, trellising and other vineyard practices. One advantage the early wine growers had is that the state law prohibited the establishment of housing on the rural hillsides, which are now home to the region’s vineyards.

However, in just 40 years, Oregon has evolved into a world-class wine-growing state with 15 approved wine regions. One of the turning points for the industry was in 1979, when an Oregon wine producer entered a Pinot noir into a competition in France where 330 wines from 33 countries were evaluated by 62 experts from ten nationalities... Oregon Pinot noirs have proved themselves on many other occasions since, ranking above Burgundies in blind tastings. Recognising the opportunities, Robert Drouhin, a Burgundy producer, started a vineyard and a winery in 1988 in the cool Willamette Valley area of Oregon. Investment from both other states in the US and abroad followed. All the properties visited were extremely welcoming and gave the impression that the wine-producing community was important and that collaboration was a key.

The impression was also that the Oregon winegrowers are very much ‘stewards of the land’; passionate

about their sense of place and producing wine in a sustainable manner. A high proportion follows the LIVE programme, and a much of the vineyard area is certified as sustainable, organic and some biodynamic. Some of the producers visited were still following the guidelines, even if they had not sought formal certification.

The state of Oregon contains 15 American Viticultural Areas (AVAs) :vinegrowing regions distinguishable by geographic features with defined boundaries. Applegate Valley

- Chehalem Mountains
- Columbian Gorge
- Dundee Hills
- Eola-Amity Hills
- McMinnville
- Red Hill Douglas County
- Ribbon Ridge
- Rogue Valley
- Snake River Valley
- Southern Oregon
- Umpqua Valley
- Willamette Valley
- Yamhill-Carlton District

The Willamette Valley region: Carlton Winemaking Studios, Carlton.

A fairly unique and successful venture of shared winemaking facilities. At this state-of-the-art winery, eleven winemakers currently share pressing equipment, fermentation vessels, pumps and skilled cellar staff. The premise also has a retail outlet, with the advantage that customers have the opportunity to taste and buy a wide range of wines in one place.

Shared investment makes financial sense, especially for smaller growers, as the quality of the equipment used affects the quality of the wine, and good equipment is expensive. Carlton uses contract bottlers, as even at a shared facility the costs of a premium bottling line are not justifiable and cheaper units can compromise quality.

The Dundee Hills region : Argyll Winery, Dundee

Surprisingly in Oregon, unlike the UK, there is little sparkling wine production, although the cool climate

is suitable. The visit to Argyll Winery, one of the few sparkling wine producers, revealed some of the reasons why. Firstly, the Americans do not consume as much sparkling wine per head as the British, but also, from a business perspective, sparkling wine requires a lot of investment and a delay in return of up to seven years with high stock-holding costs. It seems that many wineries are keener to produce still wines, particularly Pinot noir and Pinot gris, where the marketing reputation is established and cash-flow is more favourable.

The Dundee Hills region: Sokol Blosser Winery, Dundee

Sokol Blosser, as well as having a highly-regarded and very passionate Pinot noir winemaker, was also the first winery in the country to receive the prestigious Leadership in Energy and Environmental Design (LEED) Certification for their underground barrel cellar, in 2002. LEED a widely accepted measure of environmentally friendly construction.

Willamette Valley region: Willamette Valley Vineyards.

Willamette Valley Vineyards pioneered as the first winery in the world to use sustainable corks from the Rainforest Alliance-certified cork forests. *This gives the impression that the corks were grown in a rainforest?*

The Southern Oregon region: Henry Estate Winery, Eugene

It was a real privilege to visit Henry Estate and spend time with Scott Henry, the designer of the Scott-Henry vine trellising system, which is now adopted worldwide. The Henry family started the vineyard in 1972, but, as the vines matured, Scott Henry noticed that, due to the fertile soil and favourable conditions, vine vigour became an increasing problem and fruit quality was falling. He tried many different methods to improve the poor fruit quality, and through trials and experimentation created his own trellising system, increasing the number of canes from two to four per plant and dividing the canopy. Advantages of this system include increased yield, as well as increased sugars and reduced acidity.

4.3 The 7th International Cool Climate Symposium, Seattle

The International Cool Climate Symposium series is the international focal point for the cool climate wine sector and takes place every two to four years, hosted by a different cool climate wine region each time. New Zealand and Tasmania, as well as Seattle, USA, have been recent hosts.

The Symposium series keeps growers abreast of research and developments influencing the production of wine in cool climate areas around the world. Other than the plenaries, the sessions are usually theme-based, mostly in parallel, covering either Oenology or Viticulture topics, where researchers present their findings and updates on abstracts submitted. Poster sessions, summarising research, are available throughout the breaks.

To provide details of each of the presentations attended is outside the scope of this report. However the benefits of attending the Symposium were two-fold.

Firstly, it was an invaluable opportunity to improve my personal knowledge, particularly in the area of viticulture. This has improved my lecturing, particularly in the areas of soil science and botany.

Secondly, it was a source of relevant important topic areas, as well the opportunity to make contact with potential speakers and trainers for the WineSkills training programme, in order to deliver training events for UK wine growers. It was noticeable that only a few members of the UK wine industry were present at the Symposium, but WineSkills has been able to disseminate information through Masterclasses. As a result of the Cool Climate Symposium, WineSkills has run training events including:

- Winemaking techniques for dealing with high acidity and Botrytis-infected grapes, with Dr Oliver Schmidt
- Informed winemaking: understanding wine oxidation & interpreting wine analyses, with Dr Roland Harrison
- Grapevine yield management and its influence on fruit composition, with Dr Mike Trought
- Canopy management and clonal selection, with Dr Richard Smart

- Frost Protection Strategies, with Hans Loder
- Pinot noir: factors influencing aroma and flavour, with Dr Roland Harrison.

During the Symposium, discussion took place as to whether the UK should bid to host a future International Cool Climate Symposium. At the next International Cool Climate Symposium in Tasmania, a team representing the UK won the bid to host the 2016 International Cool Climate Symposium, which will take place in Brighton. This is a very significant step forward for the UK wine production industry and will be an opportunity to put UK wines on the worldwide map.

4.4 Education and Research

The Oregon Wine Board provides grants and funding to Oregon State University, which conducts research and provides an extension service in viticulture and oenology to help the wine industry put in place sustainable practices, solve problems, develop new ideas, and share information in order to produce a high-quality product. The UK wine industry does not yet have this level of support. Plumpton College is the UK's educational institution specialising in wine, and is developing its research programme, but further funding from the industry is needed if it is to offer a similar service to that provided by Oregon State.

The meeting at Chemeketa College was an opportunity to compare the US Viticulture and Oenology teaching programme, course contents and structure with that of Plumpton College. The programmes, although similar in content, are structured slightly differently, as many of the students need to combine training and education with their employment in the wine production sector. There was a greater emphasis on the practical elements of the course (in Oregon?). This reflects the needs of the (larger) Oregon industry with a higher number of employees compared to the current UK industry. However, Plumpton offers intensive courses tailored to trainees employed, or seeking employment in the industry, and the WineSkills programme is able to provide practical workshops around the UK regions as required, to complement the courses offered by Plumpton College.

The visit to Oregon provided an opportunity to meet the Assistant Professor and Viticulture Extension Specialist, Dr Patty Skinkis from Oregon State University. The extension programme that the University runs for continuing training for the Oregon wine-growers is not dissimilar to the role of WineSkills and it was useful to learn of the growers' issues and the topic areas covered by the workshops and training events that Oregon State University run. Hopefully there will be opportunities in the future to use the

expertise of some of their trainers for the UK growers, through the WineSkills training project. Dr Patty Skinkis contributes significantly to the LIVE sustainability programme and was part of the team that delivered a Masterclass in the UK as a direct result of the visit to Oregon.

4.5 Oregon wine industry structure

4.5.1 Governance

The UK wine industry's current structure has its roots in the early years, where smaller and amateur growers dominated, but this is not necessarily appropriate for the future. Membership of regional associations and the national association, the UKVA (UK Vineyards Association), is optional, and financial contributions are relatively small. Just about all other wine-producing countries, or wine regions in the world, have compulsory contributions in the form of levies, either on area, tonnage or bottles produced, or a combination. This revenue contributes, depending on the region or country, to the funding of representation at government level, generic marketing activities, guidance and advice, rules and regulations, and often research.

The Oregon wine industry operated under the Oregon Wine Board. The Oregon Wine Board is a semi-independent state agency that replaced the Oregon Wine Advisory Board in 2003. The Board supports oenological, viticultural, and economic research and also the promotion of grape growing and winemaking in Oregon. Funds to support this work come from mandatory taxes on grapes used to produce Oregon wine (\$25/ton) and on certain wines sold in Oregon (\$0.02/gallon) (correct in 2010). Nine industry leaders, from Oregon vineyards and wineries, are appointed to the Oregon Wine Board. This funding of research and support in marketing (both domestic and export), tourism, and education has considerably advanced the Oregon wine and wine grape industry. In comparison, the UK wine industry desperately needs to strengthen and increase the financial abilities of its professional associations.

4.5.2 Self –assessment and benchmarking

The spirit of community and professional collaboration is noticeable amongst the members of the Oregon wine industry. An example of professional collaboration is the benchmarking exercise set up by the growers in the 1980s, known as the Steamboat Pinot noir meetings. Winemakers use the event to taste and discuss their wines, and compare them with others from around the world. These events made a huge difference to the quality of their wines in the early years, but meetings still continue to this

day.

In response to this, WineSkills is planning to offer a training Masterclass in the UK as a starting platform for benchmarking quality within the industry. Growers will be able to compare their wines, receive feedback and advice from professionals, and have the opportunity to compare UK wines with other similar style wines from around the world.

4.5.3 Collaboration

In Oregon, many growers faced with the huge investment required to set up a winery, developed collaborative, joint enterprises. For example, there are several winemakers' studios, jointly using state-of-the-art winery facilities and sharing trained cellar crews. The growers also see the financial sense of sharing the cost of a single cellar door sales facility, with the added advantage of offering customers a range of wines to experience. Such collaborative enterprises don't yet exist in the UK, maybe because the industry is not yet regionalised, and growers are relatively spread out. But as the industry is growing rapidly, WineSkills is considering training events to cover business models that can assist collaborative business development.

4.5.4 Tourism

Visiting wineries in Oregon is a real pleasure, and has that 'holiday-feel' about it. A 'wine route' of blue signs makes vineyards easy to find, and sweeping entrances are welcoming. Tourism has steadily increased and other businesses have emerged to cater for wine tourists such as restaurants, hotels, wine bars and shops, contributing significantly to the local economy. Wine tourism is developing fast in the UK, with many vineyards offering vineyard tours and tastings, but, as yet, the UK lacks the promotion, direction and coordination supplied by the Oregon Wine Board to its members.

In response to this, WineSkills has run several successful Masterclass on Wine Tourism with Professor Stephen Charters MW, as specialist in the area of, and author on, wine tourism. Evaluation from trainees has shown a requirement for workshops concentrating on regional identity with regards to wine tourism and appropriate training events are being planned for the future.

5. Conclusion

Wine growing in the UK is still in its emergence stage and is eager to learn, looking to other cool climate wine regions for methods, technologies and techniques. The Farmers Club funding for the visit to Oregon has been invaluable, and outcomes have already had an impact on the rapidly developing UK wine industry.

These include;

- The opportunity to discuss issues with wine growers in Oregon, such as the consistency of quality and quantity and the viticultural practices and production techniques to overcome them;
- Evaluating how effective collaboration and industry structure can be;
- Observing the LIVE sustainability programme in action and learning the growers views
- Attending the International Cool Climate Symposium.

The information and knowledge gained has been vital for planning training through the WineSkills programme and for teaching on wine courses.

The UK wine industry now looks forward to hosting the International Cool Climate Symposium in Brighton in 2016 and becoming a world-recognised wine-producing country.

6. Acknowledgements

Farmers Club Charitable Trust for funding the Post-Graduate Study Award to visit Oregon in June 2010.

Oregon Wine Board, for helping to arrange the appointments with the vineyards and wineries visited.

All the winemakers and vineyard managers visited for giving up their time so generously.

Dr Patty Skinkis from Oregon State University for discussions on the state viticultural extension programmes and for coming to the UK to co-present the LIVE sustainability programme in a WineSkills Masterclass.

Chris Serra, LIVE Executive Director, for meeting and discussing the LIVE programme and subsequently coming to the UK to co-present a Masterclass.

Chris Foss, Head of the Wine Department at Plumpton College, for encouraging the application for the Farmers Club post-graduate bursary.

Plumpton College, for the opportunity to pass on knowledge to students on the wine courses.

Defra and the EU, for supporting the WineSkills programme,

7. References

Oregon Eco-Friendly Wine Clive S. Michelsen

<http://www.englishwineproducers.com/stats.htm>

<http://liveinc.org/>

<http://www.ukva.org.uk/>

<http://www.oregonwine.org/>

<http://www.rathfinnyestate.com/>

8. Appendix

All these producers won gold and silver medals in recent competitions surrounding the London International Wine Trade Fair.

Ridgeview were the most successful UK producer with 2 Gold Medals, 7 Silver Medals and 6 Bronze Medals. Balfour Brut Rosé from Hush Heath won a Gold Award at The International Wine Challenge 2008 and was awarded a Gold Medal at the Decanter World Wine Awards in 2009.

Chapel Down won gold in the International Wine Challenge 2009, the International Wine & Spirit Competition 2009 and the Decanter Awards 2009

Nyetimber was awarded Champion of Worldwide Sparkling Wines - Bollicini del Monod, 2009 and won best worldwide sparkling wine in the International Wine & Spirits Competition in both 1998 and 2006

Camel Valley won a Gold Medal and two silvers in the International Wine Challenge 2010 and were awarded Best International Traditional Method Sparkling Wine Italian World Sparkling Wine Championships 2010

Rathfinny estate <http://www.rathfinnyestate.com/>

Word count: 4,518