

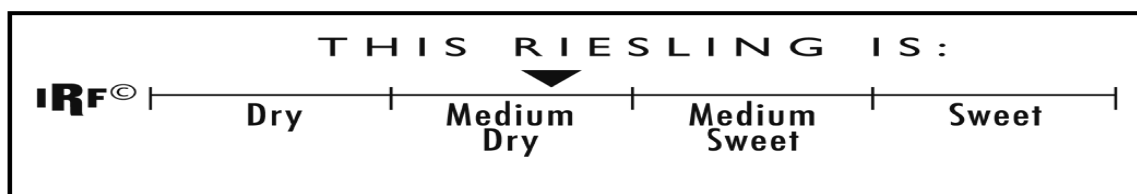


The Future of Riesling in SA and what we can learn from the recent improvements in Germany (example: the Rheingau)

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Dissertation submitted in partial requirement for the diploma of the Cape Wine Master.



Declaration

I, Kristina Adele Beuthner, declare that this dissertation is my own, unaided work. It is submitted in partial fulfillment of the requirements for the diploma of the Cape Wine Master to the Cape Wine Academy. It has not been submitted before for qualification of examination in this or any other educational organization.

1 July 2009

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Last but not least a big thank you to Mr. Günter Brözel, Mrs. Fredericke Buechner, Mr. Peter Gebler, Mrs. Jancis Robinson, Dr. Wolfgang Prinz and Mr. Daan Joubert and Mrs. Margaret Fry.

Summary

This dissertation starts with a page of quotes on Riesling that serves as a point of focus. An introduction to the attributes of Riesling is then given via history of the cultivar, regions where it is grown, data and statistical information. In the Appendices, there is also a profile of Riesling.

A questionnaire helped to structure the interviews in each region. These interviews were summarized to allow for a quick overview of the factors affecting taste and quality of Riesling and recommendations for the future. The Geisenheim Research Institute and SAWIS were important information sources.

The focus on Riesling in the Rheingau and in South Africa has two chapters. Both chapters are built in the same way: A map is provided followed by general information, history, wine law and the summarized interviews of the region. The recent vintages also show how climate forces the winemaker and viticulturist to more perfection in vineyard management and winemaking.

The chapter on the Rheingau summarizes the unique site-charting in this area in an attempt to extract relevant information for growing Riesling for example in South Africa. The chapter on South Africa shows which wineries are involved with Riesling and their rather low representation in South African competitions.

The section on how Riesling wine is made summarizes vineyard management and winemaking in the Rheingau. Consumers as well as the winemakers need to understand the unique characteristics of Riesling, not only as a marketing tool. The “Under the Influence of Riesling Festival” in Johannesburg shows how the wine industry in South Africa is starting to focus on Riesling. Finally, the discourse comparing the factors that affect taste and quality of both regions is to show how difficult it is to superimpose the Rheingau model onto the South African model.

However, it is concluded that there are lessons South African winemakers can learn from what was accomplished in the Rheingau. South African winemakers should pursue and use information from this source in order to develop procedures to improve the consistency and quality of local viticulture and viniculture. This will earn Riesling a more prominent position in its niche share of the South African wine-drinking society.

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1. Quotes

“Newcomers....approach their first Riesling without preconception and often see it is a refreshing improvement on basic Chardonnay”. **Jancis Robinson, www.jancisrobinson.com, November 2007**

“Riesling’s day will come, if not tomorrow, maybe it takes 10 years for a wine trade trend to turn into a consumer trend” **Life is sweet, Tom Bruce Gardyne, T4, 2006**

“...today winemakers can’t speak highly enough about its star qualities – the fact that it ages well, is good value for money and the quality fruit means it needs a few tricks in the winery to produce an outstanding wine.” **The Rebirth of Riesling, Wine Industry Journal, May/June 2000**

“Riesling is a good wine to drink young, but it also grows in stature with age and develops additional flavour. It is also a refreshing drink, light bodied but full flavoured. The first glass doesn’t stop you in your tracks like some other varieties.....” **Brian Barry, former wine show judge & South Australian Winemaker; Wine Industry Journal May/June 2000**

“Riesling is a hardy grapevine that performs its best when it is “on the edge” ie. a fine line between water stress and disastrous defoliation, extreme greenness from shading or sunburn from excessive heat late in season...” **Leo Buring, Barossa Valley, Wine Journal, 2004**

“Although Germany is now producing a wider range of wines than ever in living memory, including serious ripostes to both red and white burgundy, there is one style of wine that nowhere else in the world can produce and that is featherlight yet ethereally refreshing and magically long-lasting fruity Riesling with well under 10 per cent alcohol, lots of acidity and extract and quite a bit of residual grape sugar, disguised by the acidity both when it is very young and very old.” **Jancis Robinson, article on Scharzhofberger vineyard, 17 December 2005**

“The quality of a wine depends upon the vineyard site, but also on a late harvest. The poor and the rich are constantly at odds. The former focus on quantity; the latter on quality.” **Johan Wolfgang von Goethe (1749-1832), Autumn Days in the Rheingau, from his Rheingau diary**

2. Objective of the Study

The objective of the dissertation is to evaluate Riesling's position in South Africa and compare it to what it could become, by looking at the Rheingau, where it dominates the vineyard area and its viticulture and viniculture.

In SA we talk of a cultivar of minor importance in vineyard area (and also not a big cash business), yet this easy, seductive cultivar should be given a chance. South Africa shows a slow yet steady improvement of its Riesling wines, but there is still a need to learn more about this noble cultivar and to persist to keep on learning in a time of major change in the industry.

A further objective of this dissertation is to provide an insight of a wine region dominated by the grape variety Riesling, and to show the detail, knowledge, experience, and research that are necessary to produce such top wines.

The Rheingau is the most concentrated wine-growing region in the world for Riesling grapes. In the Rheingau, Riesling has 78% of the vine area¹ (so clearly more dominant than in the Mosel), varied soils (producing different aroma and taste profiles of Riesling), flat areas and undulating hills, a predominately south-facing aspect, low rainfall and above average hours of sunshine during the growth period². Finally, also within this breathtaking Rheingau landscape, lies Schloss Johannisberg – the world's oldest Riesling Estate (established in 1720AD). These factors, and its clear leadership role in the CHARTA and VDP organizations in attaining legal status for its Erste Gewächs, make this region an interesting comparison to South Africa with its small, diverse, warmer vineyards of Riesling.

The objective of the research was to develop a questionnaire to gain insight into the aspects of the Rheingau viticulture and viniculture. South African winemakers and the wine industry can learn from the improvements of viticulture and viniculture in the Rheingau. The comparison is mainly on Riesling wines, in a dry and off-dry/ medium sweet style. Riesling Sekt and Noble Late Harvest wines (from Beerenauslese

¹ Fischer, Christina, and Ingo Swoboda. *Riesling, The full diversity of the world's noblest vine*. Hallwag, 2007

² Gladstone, John. *Viticulture and Environment: A study of the effects of the environment on grapegrowing and wine qualities, with emphasis on present and future areas for growing winegrapes in Australia*. Winetitles, Adelaide 1992,

onwards) were not at the center of this study. A look at some interesting points in the world of Riesling, also in the appendices (eg Appendix 15.1 *Riesling Profile*, pg 83 or Appendix 15.13 *IRF Tasting Profile*, pg 99), is included, to invite the reader to get closer to understanding this cultivar.

3. General Information and History of Riesling

In her *Guide to Wine Grapes*, Jancis Robinson lists more than 800 cultivar names, although many represent regional names for the same grape variety. This multitude of names is a result of the distribution of the ancient grape varieties from their areas of origin to various other regions in Europe (and the rest of the world), and their cultivation from selected seedlings. Thus over a long period, some cultivars became endemic to certain areas while not occurring anywhere else.

Cultivars migrated to other countries either under their original names or under new names. Given this long history, as Viticulture and Oenology has become more formalized it has proved difficult to discover the true origin of some grape varieties.

Knowledge of the various cultivars has grown immensely with identification using Ampelography. Today we can identify the origin, names, synonyms and characteristic traits via modern DNA analyses. Doing so has caused new problems; in many countries where established cultivars are known under a local name which turns out to be incorrect³.

In an article⁴ reviewing a taste-off at Chateau Ste Michelle Estate in Washington State, USA, Stuart Pigott actually mentions how blurred the definitions of Riesling from the Old World versus the New World have become. He even suggests that they have always been blurry and refers to the first Riesling being planted in South Australia 150 years ago, as well as a Pewsey Vale Riesling winning a gold medal in London in 1854. At that time only a small amount of Riesling had been planted in the Old World, including Germany.

In Germany winemaking dates back to the first century AD. Riesling only appears in the 15th century when it is first documented as being grown in the Rheingau area and slightly later in the Mosel Valley.

A reference to Riesling was made in 1435, when the storage inventory of Count John IV of Katzenelnbogen in Rüsselsheim (a small principality on the Rhine, close to today's Rheingau) lists the purchase of six Riesling vines in the vineyard⁵.

³ *What's in a name*, Piet Goussard, Viticulture and Oenology Department, Stellenbosch University, www.wynboer.co.za

⁴ *Riesling rendezvous inspires worldly debate*, Wine Industry Journal July/August 2007, Vol.22, No.4, Page 77, www.winebiz.com.au

⁵ "umb seczreben Riesslingen in die wingarten"

In the 1800s the great Rieslings of Germany sold at higher prices than white and red Burgundy and the First Growths of Bordeaux, France. In the 1950s and '60s Australia's most important premium white variety was Riesling⁶.

After the two World Wars that devastated German vineyards in the first half of the 20th century, the vineyards were replanted, but not always with Riesling. Technological and scientific advancements led to experimentation in the vineyard and the development of earlier ripening new grape varieties like Sylvaner and Müller-Thurgau (a hybrid of Riesling and Madeleine Royale). As a consequence, vineyard yields of Sylvaner and Müller-Thurgau increased substantially and wine production entered a phase that focused on quantity rather than quality.

In spite of the great vintages of 1971, 1976 and 1983, the boom of ever cheaper German wines dragged down the image of the fine wines. This was exacerbated by the German Wine Laws, 1971, with the introduction of "süßreserve"- the legal addition of unfermented must (grape juice) to fermented dry wine.

Lower demand for Riesling, archaic labels in Germany, less attention to yield and winemaking and incomprehensible wine laws, left Riesling to be typecast as a cheap wine in Europe. Australia sold Riesling to the UK under a medium dry white label as a blend, at around £3.49 per bottle.

After the Austrian diethylene-glycol scandal of 1986, vine growers simply had to improve the quality of their wines. Austrian wines were found to contain diethylene-glycol, giving them the desired character of sweetness and also more body. This had been a misguided attempt to make the wines more attractive for the export market at a lower cost. Austrian wine laws, as a direct consequence to this scandal were overhauled, and to this day are now the most stringent to be found anywhere.

In the 1990s Australian Chardonnay had lost its lustre, and finally the young generation developed an interest in Riesling. New Zealand started growing Riesling. The USA only produced a half-dry Riesling, which was consumed by the older generation. Finally these wineries turned to making dry premium wines, mostly in Washington State. Germany also started its long haul to catch up, with the help of the Verband Deutscher Prädikats- und Qualitätsweingüter (VDP), see chapter 6.1 *The Rheingau*, pg 16.

There is little documentation on the history of Riesling in South Africa. In the 1600s when van Riebeeck brought vine cuttings to the Cape, this cultivar was called Green

⁶ *Riesling renaissance continues*, Nick Bullied, Wine Industry Journal, March-April 2004

Leaf Steen (“Groenblaarsteen”). At some point, this variety was renamed ‘Riesling’. In the 1980s, Professor Orffer⁷ a recognized South African ampelographer identified this South African Riesling to be Crouchen Blanc, a French varietal. This was confirmed by other ampelographers and the local cultivar name needed to be corrected. Weisser Riesling/White Riesling was also imported to the Cape. Professor Orffer states that the origin of Weisser Riesling is uncertain. According to Galet Weisser Riesling is Roman of origin while Jancis Robinson believes it is of German origin, and mentions other recognized synonyms. Orffer deduced that there are also cultivars using the name Riesling that are actually other grape varieties, eg. Franken Riesling is Silvaner; Schwarzer Riesling is the French Pinot Noir (not to be confused with Schwarzriesling, the German name for Pinot Meunier).

Today it is impossible to claim that there is only one “original” grape that may claim the name “Riesling”, with Italy, the Soviet Union and Hungary as well as Austria all claiming cultivars with the “Riesling” name. This will undoubtedly lead to more DNA analyses and consequent name changes will occur. The SA wine industry has to follow the new wine law⁸ of 2010, see chapter 6.2 *South Africa*, pg 45 in this respect.

⁷ “*Riesling*” bestaan nie....maar hoeveel Soorte Riesling is daar?, an unpublished paper from Prof.Orffer, 1998, received by Ernst Le Roux, Distell

⁸ Appendix *Wine Law SA* and Appendix *Annexure B*

4. Where Riesling is grown

The recent Riesling renaissance of the New World (Australia and USA) has given rise to a group of exceptional winemakers, experts, journalists, editors and judges, who are showcasing Riesling in many ways. After Sauvignon Blanc, Chardonnay and Muscat, Riesling still only has a total share of 4%⁹ cultivation in the world, yet it is being planted in many countries, as listed below:

Germany¹⁰ (20627 hectares)

France

Austria

Luxembourg

Italy

Spain

Portugal

Switzerland

Hungary

Romania

Bulgaria

Slovenia

some ex-Soviet Union “areas”

Argentina

Chile

USA

Canada

Australia

New Zealand

South Africa (347 hectares)

⁹ Christina Fischer, Ingo Swoboda: *Riesling, The full diversity of the world's noblest vine*, Hallwag, 2007 (English version)

¹⁰ Appendix 15.6 *Where Riesling is grown in Germany*, pg 92

5. The World of Riesling in Numbers

There are two estimates for global acreage of Riesling on the International Riesling Foundation website¹¹ (IRF, also see Appendix *IRF Tasting Profile*): The IRF estimate is 120 338 acres while the Chicago Wine School estimate is 146 230 acres. South Africa is considered to have planted between 1 030 acres (in 2002) and 595 acres (2006). This difference could be due to a number of factors: a true uprooting of Riesling, as seen by the decrease of wineries offering Riesling wines; no distinction being made between the vine area of Rhine and Cape Riesling, and a quantitative discrepancy from the two schools.

The official number for the area planted with Riesling in Germany in 2003 is 21 514 hectares (ha) which represented 20.8% of its 102 605 total ha¹² under vine.

According to SAWIS¹³, quoting OIV as source, the total world planting of vines (wine and table grapes) in 2005 was 7 929 000ha, with Spain, France and Italy leading the list of countries. In that year South Africa had 134 000ha under vine, equal to 1.7% of the total, and Germany with 102 000ha, accounted for 1.3% of the total. Change in vine plantings for South Africa and Germany from 2003 to 2005 are given in Table 1.1.

<i>Country vine planting</i>		
	2003	2005
South Africa Total	110 200	112 590
* white grapes	65 459	66 203
* red grapes	44 741	46 387
Germany Total	102 489	102 037
* white grapes	67 643	64 487
* red grapes	34 846	37 550
Table 1.1 Source: SAWIS: World Review, Area under Vines, in ha		

¹¹ <http://www.drinkriesling.com/home/riesling-grapes/global-case-production/>

¹² Freddy Price, *Riesling Renaissance*, 2004, pg 21

¹³ http://www.sawis.co.za/info/download/World_Overview.pdf

This statistic shows that Germany favours white wine production over that of red and has a higher percentage under white grapes than South Africa.

Despite South Africa having a greater area under vines, consumption of wine in these two countries is significantly different: in 2005, Germany consumed 1.9 million litres of wine at 24 litres per capita, while the 345 000 litres of wine consumed in South Africa only represents 7.3 litres per capita. While the demographic complexity of South Africa might explain the relatively low consumption, there is clearly a large market for wine still waiting to be exploited. Riesling can be an alternative and can introduce beer and liquor drinkers to learn about wine. It has a fruitiness, often sweetness and lower alcohol which make it attractive.

When we consider only the planting of Riesling grapes, the area under Riesling in Germany is 20 627 ha¹⁴, which represents about 61% of worldwide Riesling vineyards. Also refer to Appendix 15.6 *Where Riesling is grown in Germany*, pg 92. By contrast, in South Africa the area under Riesling is only 347 ha, or about 1% of the worldwide Riesling total.

In a speech at Schloss Vollrads, Pia Rosenkranz, Vice-President of the Rheingauer Weinbauverband e.V., on 24 August 2008¹⁵, the vine area under Riesling in Germany was increasing by about 500 ha per annum. This increase is almost 50% greater than South Africa's total planting of Riesling in 2005 and is an indication of rising demand for German Riesling wines, a trend South Africa could also use to its advantage. South Africa already produces good dry and off-dry Riesling wines at very affordable prices. Germany exports Riesling wines primarily to the USA¹⁶ and the UK. The demand for German Riesling wines in the Netherlands and Norway is increasing. These countries may present an opportunity to market South African Riesling.

Since there is no data available on recent changes in Riesling plantings in South Africa, the only indication of the increasing popularity of Riesling is derived from new orders of Riesling vines from nurseries. Charles Visser of Vititec nurseries in Paarl reveals in 1981 there were about 19 Riesling clones available, most of these from

¹⁴ Fischer, Christina, and Ingo Swoboda. *Riesling, The full diversity of the world's noblest vine*. Hallwag, 2007

¹⁵“Pressegespräch, anlässlich der Präsentation ‘Erstes Gewächs’”, Pia Rosenkranz, Rheingauer Weinbauverband e.V., August 2008

¹⁶ Impact Int.v37 n15-16, pg4, Aug 1 &15, 2007 and DT Weininstitut Stastic Titel Deutscher Wein- Statistik 2007/2008, Typ (Gen), Number W3 08 68

Germany but a recent list of available clones shows only 4 clones namely WR110A, 110F and WR239 AG, 239 Z¹⁷ are available “virus free” from Germany.

Other recommended clones are WR 198 and WR 64 from Geisenheim (as per e-mail from Dr. Ernst Rühl from Geisenheim to Mr. Visser on 21.09.2008).

Visser, Vititec advised that “with the recent interest in Riesling we sourced some of the other clones from old mother blocks and put them through virus cleaning again¹⁸”. A list of Riesling clones sold during recent years is reproduced in Appendix *15.4 Riesling clones sold in SA over the last 5 years and clones on order for 2009*. It is interesting to note that the Riesling vines sold per year has increased since 2005 and the orders for 2009 are mainly from Elgin and Hermanus areas.

¹⁷ Vititec clones available 2009, see Appendix *15.4 Riesling clones sold in SA over the last 5 years and the clones on order for 2009, pg 86*

¹⁸ E-mail from Mr. Visser, dated March 2009

6.1.2 History of the Rheingau

From the 1st to 3rd century AD the Romans grew wine in the Rheingau. In a certificate dated 786 AD, of the wine region, now displayed in Geisenheim, the word “Rheingau” (at the time written as “Rinechgowe”) first appeared.

In the 13th century, Bartholomeus Angelus wrote about this region calling it the “garden of indescribable delight”.

During the Middle Ages, Benedictine and Cistercian monks planted vineyards and derived a livelihood from wine. In 1498 the first inventory at Kloster Eberbach referred to “the growths of special sites”, clearly giving credit to certain vineyards in the area. The wine historian, Friedrich von Bassermann-Jordan, believes that the monasteries and the free wine-growers were the reason for the impressive growth of the Rheingau noble varieties.

The Rheingau also shows the origins of the quality attributes of “Cabinet, Spätlese and Auslese”. There is a famous story about “Spätlese” from 1775: The monastery of Johannisberg was under the reign of the Lord Abbot of the town Fulda. A courier on horse had to present the ripened grapes in Fulda for the permission to harvest. The monks in Johannisberg followed this regulation and waited for the courier’s return. Schloss Johannisberg actually showcases the permission certificates that this courier received from the abbot. In that year the courier was late, the harvest was late and the dried out grapes were vinified as normal. This was the birth of Spätlese, or rather “späte Lese” (late harvest), introducing a harvest of ripe and overripe grapes. Although it is not clear what took the courier so long a monument was erected at Johannisberg to commemorate this legendary story. A few years later, in 1787, the first Auslese was made. In 1858 the first Eiswein harvest took place. Two traditional wineries, Schloss Vollrads and Kloster Eberbach, introduced the word “Cabinet”, around 1728/1730: Cabinet was previously described as a room with valuable content. Both of these wineries had a cabinet cellar containing true wine treasures. The Rheingau Cabinet description was then misused in the wine law of 1971 as the first level of Prädikatwein: Kabinett, causing a lot of criticism from the Rheingau.

Thomas Jefferson ranked the Rheingau vineyard sites in a 1788 diary entry. Goethe¹⁹ kept diaries while travelling through the Rheingau, clearly recognizing quality over quantity. By 1836 the first scientifically written publication on climate and

¹⁹ see Quotes, pg 6

geology of the Rheingau appeared. The first vineyard maps on the Rheingau were published in 1885, only some 30 years after the Bordeaux classification. That book, written by Heinrich Wilhelm Dahlen, general secretary of the German Winegrowers' Association, was based on the quality of the soil and property tax revenue generated by the individual sites. This brought Riesling from the Rheingau into the limelight of the world, fetching far higher prices than wines from Bordeaux, Burgundy and Champagne.

In April 1897, 15 wineries founded the "Vereinigung Rheingauer Weingutsbesitzer" (Association of Rheingau Wine Estate Proprietors). This was what is today known as the VDP Rheingau, the oldest regional association of the national organization that represents the most renowned German Wine Estates in all the wine-growing regions, the VDP. The VDP stands for "Verband Deutscher Prädikats- und Qualitätsweingüter"²⁰. Its purpose was to primarily promote "Naturweine" (natural, unchaptalized wines). The VDP is also the organization that regulates procedures at the annual wine auction.

In 1967 a new book of maps of the Hessian wine-growing region was published by Heinrich Zakosek, among others. This set of maps started a vineyard classification system and was revised in a new edition of 1996²¹.

The Rheingau officially introduced the "Erstes Gewächs" (First Growth) from officially declared sites with the 1999 harvest. In the Rheingau some 1100 ha are "classified terroir". Erstes Gewächs in the Rheingau may only be made from the cultivars Riesling and Spätburgunder (Pinot Noir). It has not only been Riesling that has profited from this classification. The *Assmannshaeusser Höllenberg* has become a well-known Pinot Noir²² in the world. Wines with the label "Erstes Gewächs" may only be sold from the first of September of the year following the harvest.

²⁰ also see Appendix 15.7 VDP Rules, pg 93

²¹ see 6.1.4 Site Charts and Research, pg 24

²² *Das grosse Dutzend*. Fine, Das Wein magazine, 3/2008

6.1.3 German Wine Law and the “Erstes Gewächs”

The Rheingau²³, of barely 30 km in length, presents a “quirk of nature”, as it is the only part of the 1000km long Rhine that flows from east to west, bordered by the Taunus hills in the north.

The Rheingau is a region of 3200 ha of vineyards primarily on south and south-west facing slopes, with the highest proportion of Riesling vines in the world. With vineyards situated at 80-200m above sea level, diverse soils from gravel and sand to loam and clay, and some quartzite and decomposed slate, this region has a superb terroir for viticulture, which was already recognized by the Romans.

In 1971 the German Wine Law was established and based quality on the must weights of wine, not the regions/terroir it came from. The most important categories are Qualitätswein (QbA) and Qualitätswein mit Prädikat (QmP).

QmP, now shortened to Prädikatsweine, are basically natural wines that come directly from the vineyards. Chaptalization is not allowed. In Germany, irrigation is allowed; water may not be taken from the Rhine River but only from the farmer’s own sources, although not many wineries have installed irrigation in their vineyards.

The regulations set out minimum Öchsle (Oechsle or Oe) readings for each Prädikat²⁴ in the Rheingau:

Kabinett - 73° Oe, Spätlese - 85° Oe, Auslese - 95° Oe, Beerenauslese and Eiswein - 125° Oe; Trockenbeerenauslese - 150° Oe .

Quality-oriented wine-growers strive to achieve higher starting must weights than required by law²⁵. The VDP Rheingau promotes “Naturweine” (natural unchaptalized wines) and runs the proceedings at the annual wine auction. Through presentations at international wine challenges and the rare wine auctions at Kloster Eberbach, the VDP-Rheingau has built up a reputation and image of the Rheingau. The logo (a stylized eagle with a cluster of grapes) on every VDP member’s capsule on the bottle has stood for classic grape varieties (Appendix *VDP Rules*). In the Rheingau this applies to Riesling and Spätburgunder and the top sites.

In 1987 the Rheingau Vintners Association, CHARTA, started a classification based on the 1885 Dahlen map and categorized certain parcels of famous sites, by their

²³ Rheingau basically means: the region adjacent to the river Rhine.

²⁴ go to 14. Abbreviations and Explanations, pg 81

²⁵ Appendix 15.8 Sugar or Sweetness (incl. SA and German data), pg 94

financial property value. The wines from these parcels, produced according to strict guidelines, were entitled to bear the designated “Erstes Gewächs” (First Growths) according to the CHARTA guidelines. The first wines with the logo of the three Romanesque arches on a black strip, appeared in 1992. Hugh Johnson and Stuart Pigott used this CHARTA classification model in their description of Rheingau vineyard sites. The CHARTA organization aimed to legitimize their first growths with the state of Hessen. The state had no problem to accommodate this request, but required all the Rheingau winegrowers to be formalized and similarly regulated. This allowed the association (Association of Rheingau Wine-growers) to legally secure and establish these vineyard sites with the Geisenheim Research Institute.

The Geisenheim Research Institute finalized the map in 1999 and classified 35% of the Rheingau vineyards as first growths. This is high for such a small region but the Rheingau is a homogenous wine growing region, with limited expansion of vineyards in any direction.

The Rheingau VDP classification of Erstes Gewächs is legally regulated. No other wine-region in Germany has achieved this cornerstone yet²⁶.

Terroir has always stood for uncompromising quality in the world and is also the base of the classification model of the wines of the Rheingau. When Erstes Gewächs, or First Growth, appears on a bottle of wine, it defines the finest dry wines from the top Rheingau vineyard sites. The lusciously sweet wines fall into the Prädikatswein category from Spätlese to Trockenbeerenauslese.

A First Growth must reflect the inherent quality of the vineyard site must adhere to strict viti- and vinicultural criteria and must pass an organoleptic examination. With these three quality hurdles, only an average of 3% of the total vintage each year manage to be classified as a First Growth.

²⁶ www.vdp-rheingau.de

Points that distinguish the Erstes Gewächs²⁷

- Viticulturally: First Cut, not more than 6 eyes per square meter
- Selective handpicking at harvest
- Wines only from classified vineyard sites
- Vineyard sites of Erstes Gewächs to be declared by 1st May
- Minimum Must Weight 83° Oechsle at harvest, minimum 90 g/l total alcohol at sale
- Harvest yield maximum 50hl/ha
- Taste profile: a dry wine with maximum 13g/l RS (VDP Erstes Gewächs maximum 9g/l RS²⁸)

Points that distinguish Prädikatsweine:

- Viticulturally: First Cut, not more than 6 eyes per square meter
- Selective handpicking at harvest
- Wines only from classified vineyard sites
- Minimum must weight for Spätlese at harvest 90° Oechsle
- Minimum must weight for Auslese at harvest 105° Oechsle
- Minimum must weight for Beerenauslese, Trockenbeerenauslese, Eiswein laid down by legal regulations (as mentioned above)
- Harvest yield maximum 50hl/ha
- Taste profile: Spätlese > 40g/l RS; Auslese > 60g/l RS; BA, TBA and Eiswein > 100g/l RS

The Testing Commission receives wine for testing from 1st May following the year of harvest. Seven members of the Testing Commission perform an organoleptic tasting. The first Erstes Gewächs wines were marketed from the 1999 harvest.

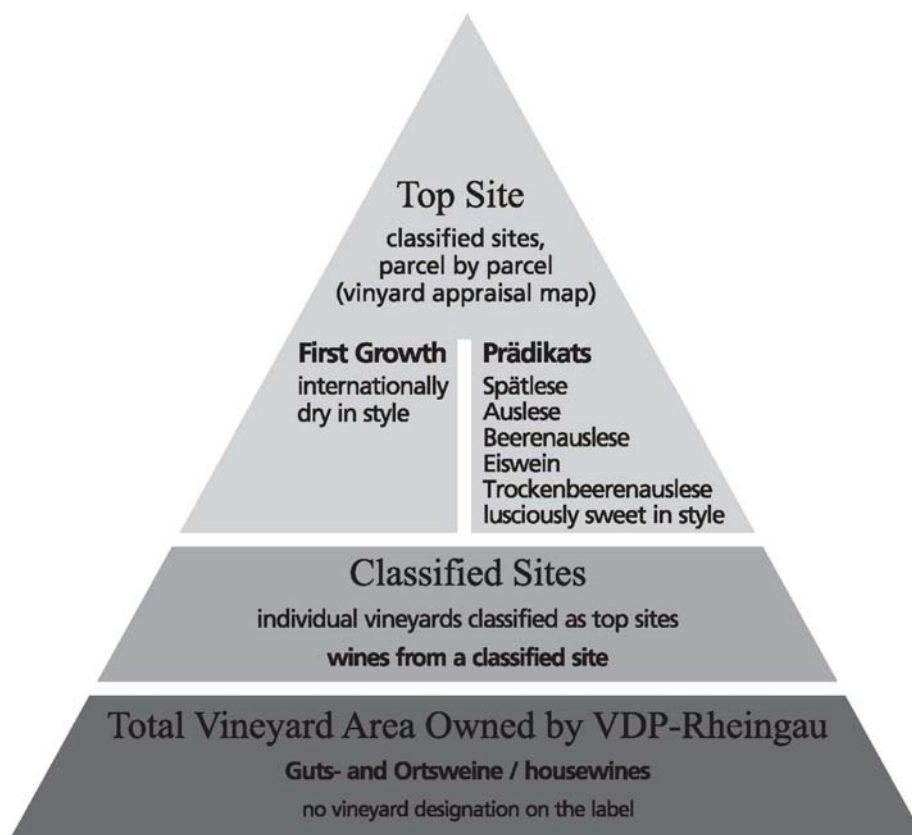
²⁷ Naegler, Richard and Silvia Diemer and Dr. Dieter Hoppmann. *Erstes Gewächs Rheingau*. Eine Dokumentation des Rheingauer Weinbauverbandes e.V. und der Gesellschaft für Rheingauer Weinkultur mbH, 2000

²⁸ Appendix 15.7 VDP Rules, pg 93

There are a number of marketing regulations: recommended use of the Rheingau Flöte (flute bottle shape) and the sale of Erstes Gewächs is only allowed from 1st September following the year of harvest.

The VDP (Rheingau) Classification Statute

The VDP classification Statute starts with the basis of every Prädikat Estate Wine Portfolio: These are the Guts- and Orts-Weine (house wines with proprietor name or village name). The next category for the VDP members are the classified sites: these wines carry the vineyard designation on the label. The top quality wines come from classified sites and are either First Growths or Prädikat wines.



Source: VDP-Rheingau Classification and First Growth

There are 123 classified vineyard sites in the Rheingau, including the four independent communities, of *Schloss Johannisberg*, *Steinberg*, *Schloss Vollrads* and

Schloss Reichartshausen. The sites for the VDP Rheingau wines number 79, including the four independent communities.

Out of these 79 classified sites, individual parcels for First Growths or Prädikatsweine can originate from:

Assmannshausen: Frankenthal, Höllenberg

Eltville: Langenstück, Rheinberg, Sonnenberg, Taubenberg, Kalbspflicht

Erbach: Hohenrain, Marcobrunn, Michelmark, Schlossberg, Siegelsberg, Steinmorgen

Flörsheim: Herrnberg

Geisenheim: Fuchsberg, Kläuserweg, Mäuerchen, Mönchspfad, Rothenberg

Hallgarten: Jungfer, Schönhell

Hattenheim: Engelmansberg, Hassel, Mannberg, Nussbrunnen, Pfaffenberg, Schützenhaus, Wisselbrunnen

Hochheim: Domdechaney, Hofmeister, Hölle, Königin Victoriaberg, Kirchenstück, Reichetal, Stein, Stielweg

Johannisber: Hölle, Klaus

Kiedrich: Gräfenberg, Sandgrub, Wasseros

Kostheim: Weiss Erd

Lorch: Bodental-Steinberg, Kapellenberg, Krone, Pfaffenwies, Schlossberg

Lorchhausen: Seligmacher

Martinthal: Langenberg, Rödchen, Wildsau

Mittelheim: Edelmann, St. Nikolaus

Oestrich: Doosberg, Lenchen

Rauenthal: Baiken, Gehrn, Rothenberg, Wölfen

Rüdesheim: Berg Roseneck, Berg Rottland, Berg Schlossberg, Bischofsberg, Drachenstein, Klosterlay, Magdalenenkreuz

Walluf: Berg-Bildstock, Vitusberg, Walkenberg

Wicker: Mönchsgewann, Stein

Winkel: Gutenberg, Hasensprung, Jesuitengarten, Schlossberg

6.1.4 Site Charts and Research

This chapter is a summary of data from the Hessisches Landesamt fuer Umwelt und Geologie (HLUG) for the wine region Rheingau.

The first edition²⁹ of the “Standortkartierung der hessischen Weinbaugebiete”³⁰ started in 1945/46. In 1947 Mr.H.-H.Pinkow started with a process of systematic wine-region mapping showing details of the soils and rootstocks. From 1953/54 the Research Institute for Agricultural and Meteorological Data of Geisenheim was also involved. By 1967 the first Atlas³⁰ for the wine regions (Rheingau and Hessische Bergstrasse) was completed. In 1989 it was decided to redo the Atlas, considering new aspects of nature conservation, quality control, greening areas and the quality of certain vineyards. More detail in the nature conservation project, such as total field capacity, soil erosion and nitrate erosion attracted the support of the Ministry of Agriculture and Forestry. This process covered 10 000 ha, by systematic drillings every 2 metres, to a maximum depth of 2 metres. This meant that per hectare some 40-50 holes were drilled, including field surveys and laboratory sampling. A total of 210 colored maps with 38 different legends are now archived.

This has lead to an excellent “Standortkartierung”³¹ (cartographical site information) which has been adapted to today’s demands. Economical as well as ecological interests have lead to questions around soil treatments and quality control. New calculations have been modeled helping the winemaker to estimate his risk when changing the soil preparation, and helping the departments of the Ministry for Water Control and Regional Planning.

²⁹ Zakosek, H and W. Kreuz, W.Bauer, H.Becker, E. Schroeder. *Die Standortkartierung der hessischen Weinbaugebiete*.1 Abbildung, 17 Tabellen und 1 Atlasheft. Herausgabe und Vertrieb, Hessisches Landesamt für Bodenforschung, Wiesbaden, 1967

³⁰ translated as “site charts for the wine-growing areas in Hessen”

³¹ Hessisches Landesamt für Umwelt & Geologie. *Geologische Abhandlungen Hessen, Band 114, Standortkartierung der hessischen Weinbaugebiete*. HLUG, Wiesbaden, www.hlug.de, 2004 and Hessisches Landesamt für Umwelt und Geologie. *2. Auflage des Weinbaustandortatlas Hessen*, HLUG, 2004

The atlas³², today, contains:

Wine regions and Nature Conservation Areas

- The actual location of vineyards, the conservancy of water and land areas, climate
- Intensity of sunlight, temperature, wind, cool air and frost dangers

Soil, relief and specific vineyard sites

- Soil groups, usable field capacities, aspect and exposure, cultivars and vineyard sites

Risks and Potential

- Potential problem of loss of nitrate; potential problem of erosion; Risk of dry stress with continuous greening; potential must weight

With all these points a complete compendium for the Wine Industry was prepared.

Legal parcels, wine-region index, role of specific vineyard, regions

New areas may not be planted without specific permission, requiring detailed conditions (including mathematical models for calculation) from the state of Hessen. An annual update is made with the wineries in this region. The Rheingau follows the usual index as is known in Germany: the region Rheingau encompasses 12 towns and their immediate *Gemeinden* (communities); this is followed by the *Bereich* (district). In the Rheingau, for example, Johannisberg is a *Bereich*. A *Bereich* would contain a couple of *Grosslagen* (collective site). There are 12 *Grosslagen* in the Rheingau. The *Einzellage* (single site) is the smallest unit, some 119 in the Rheingau.

Data shows that in the Rheingau there is a potential vine growing area of 4152 ha.; only 3167 ha has been planted with vines, leaving a potential of 985 ha unplanted This is due to lack of 'planting rights'.³³

³² Hessisches Landesamt für Umwelt und Geologie. 2. Auflage des *Weinbaustandortatlas Hessen*, HLUg, 2004

³³ Data (from 31.07.2003) from Hessisches Landesamt für Umwelt und Geologie

Brief discussion on the above points:

Soil Terroir

In a separate booklet, the state of Hessen has defined the vineyard soils of this region³⁴.

Terroir³⁵ unites the regional factors (such as history, culture, and communities) with the natural landscape (topography, geology, soil and climate) as well as the human factors: viticultural aspects and vinicultural attributes. These factors combine and are mirrored in the wines, year after year (according to Gladstone & Smart 2003). The quantity and quality of the grapes coming from a vineyard site show, among other factors, definite taste sensations that make this site individual and typical. There seems to be a correlation between the soils and the aroma/palate:

Triangle diagrams of typical soils like sand, clay and chalk show a correlation with acidity and liveliness, body and softness of the wine. The evaluation of the soil on the aroma/palate is in continuous controversial discussion with the influence of the climate, but the authenticity of a vineyard site has been brought more and more into the limelight as the major aspect of the wine's nose and palate (Schenk zu Tautenburg 1999, Rheinhessenwein e.V.2005, Mosel-Saar-Ruwer Wein e.V. 2007, Fischer et al. 2007). This means that the soil gives its character to the wine, leaving the vintage variation to the climatic conditions year per year.

There are 7 soil groups in the wine growing regions of Hessen (Rheingau and Hessische Bergstrasse), determined by the structure of the soils and their composition (mostly loam, clay, sand) in different consistencies. Often certain soil groups, like "Va" (mostly sandy, some chalk) and "VII" (mostly clay, some chalk), which are unacceptable for the establishment of vineyards, are in the right position and aspect and are therefore used. Other soil groups on the level plains like "III" (deep loess, base rich) and "V" (loess, chalky) would be ideal, but are only used near the rivers. Those soils groups with endless loess and east-facing are used for agricultural purposes, as well as pasture. The soil group "VI", where cold winds sweep the landscape and the ground water is high, are mainly used for green space cultivation.

³⁴ Hessisches Landesamt für Umwelt and Geologie. *Umwelt & Geologie, Böden und Bodenschutz in Hessen*. Heft 7, Wiesbaden 2007

³⁵ Robinson, Jancis. *Terroir, a much discussed term for the total natural environment of any viticultural site*, pg.966, The Oxford Companion to Wine,1994

Since Roman times the Rheingau soils have been deeply ploughed (rigolt) to more than 1 meter depth. In the 17th century soil preparation went as far as 3m deep, and in intervals of 30 to 80 years the earth was “rigolt”. Today the soils are mechanically ploughed only to between 40-80 cm deep.

Soil erosion through torrential rains, floods and new site development, led farmers to establish their new vineyards by purchasing new soil substrate. This purchase needs to be reported to the Wine Growers School in Eltville. This soil substrate is more or less similar to the actual soil of the area.

The Erstes Gewächs Rheingau, with the use of objective site criteria, aims to draw up a “Grand Cru” wine system for the Rheingau. The basis of the classification of vineyard areas is a system of must weights (mathematical evaluation of the must weight per exact point on the site). Around 1132ha was classified as “Erstes Gewächs”. Within some vineyard sites there are heterogeneous soil entities and this has been evaluated by the maps of the wine regions from HLUG³⁶. HLUG has worked on the soil maps of the 1950s and has renewed the data and digitized some 210 maps. Details (like size, author, origin, date) are all saved in a metadatabank. The authorities in Hessen are aware of the definition of terroir with respect to all the data collected and yet one example shows how vulnerable such a system is: Klosterberg vineyard in the Rheingau shows more than 11 different soil entities, which are changed slightly and continuously through viticultural activities and may lead to a loss of real soil character in that area. Nevertheless, the soil has become a major marketing and sales factor in wines of the region.

³⁶ HLUG= Hessisches Landesamt für Umwelt und Geologie

Field Capacity

The field capacity is the capacity of the soil to retain water. All vineyards were mapped to show the water retention capacity.

Cultivars and Sites

The research station in Geisenheim has provided rootstock since 1890. The phylloxera resistant root stock Berlandieri x Riparia is the most dominant in the German market. Since 1991 a new rootstock, Börner, was brought onto the market. The choice of rootstock is influenced mainly by the soil. There are recommendations for certain rootstock for each soil group. The HLUG and the research station for cultivar selection in Geisenheim have developed an adaption program for the testing of rootstock in different vineyard sites resulting in many recommendations.

Eighty three percent of the Rheingau vineyards are planted with Riesling. This cultivar ripens late and therefore needs warm vineyard sites. Riesling can grow on stony soils with rocky subsoils as well as heavy soils. The early maturation of the vine also allows the establishment of vineyards in cooler areas, but this can lead to "lesser quality" wines. The present research on new clones for Riesling will help to improve the quality. This shows that Riesling can produce wines on many different types of soils, improving in quality when the right rootstock and clone is used.

Potential Nitrate and Erosion Problems

Since the 1970s the legal nitrate content in potable water laws has increased from the earlier 50 mg/l maximum to 200mg/l. As nitrate is a major part of the nitrogen fertilization of agricultural land, this also affects the vineyards. The research station of Geisenheim works together with the German Weather Forecast Bureau. As nitrate is only partly absorbed, it drains away quickly from the root zone to lower levels. The danger of erosion increases with the rate of water draining away.

A lot of changes came with the mechanization, specialization and intensification of vinegrowing. Because of the compacting of soils through agricultural vehicles, and through the increasing size of vineyard sites (due to restructuring³⁷), water cannot

³⁷ Restructuring = Flurbereinigung (reshaping, improving) in Germany, a programme of the restructuring of sites, undertaken in the second half of the 20th century.

drain and erosion increases. A mapping programme of these problems and preventative actions have been recorded since the 1950s. The Rheingau with its south and south-west facing vineyard sites is “highly endangered” by erosion. However, the clay and marl soils as well as the pebbles are relatively resistant to the downpour of heavy rains. Recommendations for greening (green cover planting) between the vine rows are made, although in dry years these grasses compete for water and can negatively influence the quality of the wine. In the Rheingau one can often see “other cover materials”, like straw, bio-compost, bark-mulch or often just greening in every second row.

Dry stress risk with continuous greening (permanent green cover)

In the Rheingau the continuous greening in the vineyard is desirable: this allows for machines to work in the rows, even in wet conditions, more humus is produced and the loss of nitrate into the groundwater is reduced. Also, when it rains the water drainage is much better. Winter greening is not as effective for reduction of soil erosion as heavy rains usually occur in summer. Unfortunately this greening results in serious competition to the vine and may cause harvest and quality loss. The Rheingau is actually one of the driest wine regions in Germany and therefore this is considered a high risk. As quality is measured in must weight and total acidity, temperature and sun intensity/as well as hours of sunshine are the main quality factors. Water stress affects the harvest. There also seems to be a correlation with water stress and the “formation of unspecific ageing notes³⁸ “. This already shows that it is very difficult to define a threshold for the soil water household. Charts of different soil groups with the same field capacity have been drawn up. Evaluations were done for 40 days following flowering, the time when the vine is most vulnerable. There are tables for the different exposures and aspects. This mapping was done from 1961 to 1990 and has established 4 different risk classes. There are lessons South Africa can learn, when considering its rainfall patterns and the growth cycle of the Riesling vine in certain areas.

³⁸ The German version reads as “*Unspezifischen Alterungston*” or “*untypische Alterstöne*”, abbreviated to *UTA*.

Potential must weights

With the Rheingau map of potential must weights an attempt was made for an objective categorization of different sites. This would also fall into the new wine laws of the European Union, which base quality on regional sites. For these northern wine regions, sun hours and temperature are the limiting factors for winemaking. One chart shows that the medium temperature during the brightest daytime phase, from budburst to harvest, of the vineyards is best on SE, S and SW-W sites. These vineyards are between 0 and 120m above sea-level.

In years of drought, water also becomes an important factor for a specific vineyard site. Depending on the soil group, this can have a major influence. Climate and soil influence the must weight, especially for the cultivar Riesling, and have been mapped into a Geographic Information System.

The maps show different color legends, orange to red being most suitable areas for viticulture, especially for the growing of Riesling vines (as high potential must weights can be achieved here). Further, the yellow areas are less suitable areas with lower potential must weights. Dark green areas are only good for early ripening varieties. High potential must weight is still an important criterion for quality in Germany, and is today more a result of excellent viticulture and viticulture in a region, than a stand-alone quality factor.

These Rheingau maps show the quality of this region in Germany: over a period of 30 years 50% of the vineyards achieved a must weight of 80°Oechsle. This is due to the following factors, associated with climate:

- South and south west-facing aspects receive a lot of direct sun
- The forests on the slopes prevent the cold night air from reaching the higher lying vineyards
- The soils are ideal for vinegrowing. Especially in the dry years, two thirds of these soils can capture more than 150 litres water per square meter in the winter for the drier summer months.

Climate

The collection of data about the influence on the vineyard site of intensity of sunlight is still limited. Very fine technical equipment is needed to research the annual daily temperature in context to the topography. Cloudy conditions, the hourly exposure of

sunshine, the angle of the sun, height above sea-level, and many other factors show how complicated this collection of data really is.

Most of the Rheingau, between Wiesbaden and Rudesheim, with its mostly south-facing slopes receives 151-165kjoule (cm²*Vp)³⁹ of the direct sunlight. Some specific *Grosslagen* (collective sites) like Erntebinger (Johannisberg), Burgweg (Rudesheim) have well over 165 kjoule (cm²*Vp). The exposure of south and south south-west facing slopes also have 165kjoule (cm²*Vp). Hochheim with mainly south facing slopes, but less steep vineyards, has only 150kjoule (cm²*Vp).

Frost

The incidence of frost is divided into 4 zones. These zones do not include valleys and basins and minor lakes. Generally the Rhine moderates nearby river banks and vineyards. However, there is a cooler zone where cold air from the mountains and valleys influences the lower lying vineyards.

Frost damage is more likely in the slightly higher vineyard sites.

The resistance of vines against frost is dependent on the maturity of the vine: older vines retain starches and sugars with little water. Some older vines can resist minus 20° C. Spring and autumn frosts cause much damage and at minus 3° C some vines die completely.

Wind

The wind evaluation was determined from 1961 to 1990 on sunny and cloudy days taking into account the vine rows' direction of specific vineyard sites. Wind can damage the vines and prevent growth. On the other hand, wind after rain or dew can dry the vines and prevent fungal infection. Wind can cause a temperature change of some 10°C and thus is an important quality factor.

³⁹ measurement Vp stands for a specific vegetation period (here from beginning April to 31.October.) source: Hessisches Landesamt für Umwelt & Geologie. *Geologische Abhandlungen Hessen, Band 114, Standortkartierung der hessischen Weinbaugebiete*. HLUG, Wiesbaden, www.hlug.de, 2004 and Hessisches Landesamt für Umwelt und Geologie. *2. Auflage des Weinbaustandortatlas Hessen*, HLUG, 2004

Summary

The site charts for the vine-growing regions of Hessen, including the Rheingau, are a decision making aid for the winemaker, in order to optimize quality and maintain the natural resources.

Climate: in northern wine regions, for late ripening cultivars the ideal height above sea level seems to be 230 to 250 m. Single vineyard sites may fall within this range but are also dependent on the intensity of sunlight. Cold air and frost over the last decades still present a high risk. The maps based on sun intensity, frost and wind, help for quality purposes and give indications for soil preparation, disease risk and evaporation. The climate influences the harvests, and this results in the variation between vintages.

Water and Soil: Geisenheim is one of the driest sites in Germany. Riesling does not need a lot of water unless there is a drier phase around the beginning of berry growth. Maps showing the field capacity help wineries to understand and improve the water household for the vineyards. Dry stress risks from greening in the vine rows can still be managed by reducing the harvest level. Water and nitrate quantities need to be managed during vine growth. Sites with more than 18% slope angle risk high erosion. Greening and less mechanization during the ripening phase help to manage nitrate/nitrogen content in the soil. Maps with these criteria help decision making on cultivar and rootstock.

Potential Must Weight: The Weinbauverband in the Rheingau lists a potential must weight as one of the possible quality factors for wines as there is long term research on this. Another quality parameter is total acidity. Must weight and acidity work inversely to each other (in low lying warm vineyards and dry years total acidity can be low, while must weight increases some 3° to 4° Oechsle every 100 meters). Total acidity and must weight are not the only quality factors. With water and nitrogen stress the sugar levels can fall, as yield is reduced.

All of these maps express a desire to define the origin of the wine via its site, terroir. Hugh Johnson even extends this terroir definition from the deep subsoils to the late mists as well as the site preparation and the soul of the winemaker. Winemakers can use these detailed maps for the choice of cultivar and rootstock, trellising and greening, soil preparation and quality control of the site.

6.1.5 Interviews with top Riesling Wineries

Along the North bank of the Rhine River, between Wiesbaden and Lorch, stretches the world-famous Rheingau wine growing district. Eighty-four percent of the total area, which covers approximately 3 000 ha, or well over 7 000 acres, is planted with Riesling.

The Gulf Stream current moderates the climate. Forests on the Taunus hills protect against the cold winds from the north. Most vineyards lie on south-facing slopes above the Rhine, and receive long hours of sun for ripening grapes. The soil's special composition, often clay, sand and loamy soils, interspersed with marl and loess, some quartzite and some slate in specific sites (eg Rudesheim, and the high sites of Kiedrich and Rauenthal), along with the heat stored in its bedrock and the consistent humidity levels, are unique worldwide. These factors, just like the sparkling reflection of the sun, the milder winters, warm summers, and hazy autumn days, combine to create perfect growing conditions for the Riesling grape.

Rheingau wines are not as fruity or light as Mosel wines (but show more raciness and individual character). Nor are they as powerful as Alsace and Austrian wines.

In the 1980s the Rheingau suffered a sharp decline in its wine sales, as the vintages were not good, and the other wine regions improving quality. Some of the Rheingau well-known wines became mid-range wines, some operations (eg. Schloss Groenesteyn) disappeared completely. Family wineries like Georg Breuer, Wilhelm Weil and Gunter Künstler brought Rheingau Riesling back on the map with absolute top quality.

Hereafter are details of some of the top quality Riesling wineries, with information on the location of the vineyards, terroir, winemaking techniques, styles produced, and some personal tips from the people interviewed. All wineries are members of the VDP Rheingau (also refer to Appendix 15.2 *Contacts and People visited in the Rheingau, pg 84*).

Domdechant Werner'sches Weingut, Hochheim, Mr. Bott, production manager

This family property dates from 1780, receiving its first awards for Riesling as early as 1875. The 14 ha of vineyards next to the Main River are 98% planted with Riesling. The best vineyard sites are *Domdechaneu*, *Kirchenstück*, *Hölle* and *Stein*. All these produce Erstes Gewächs.

The subsoils are predominantly chalk with topsoil of sand or loess. Vineyards are south-east and south-west facing, 100 meters above sea level and the vines are 27 to 52 years old. The Riesling clones used are 198 and 110 planted mainly on rootstock Riparia, Riparia-Berlandiera or SO4. The vineyards have 3000 vines per hectare.

The climate is temperate with occasional warm humid westwinds. Average rainfall is 450mm/pa. Before the year 2000, harvest was on 10-15th October; today harvest normally falls around the 25th September, a sign of global warming.

The 2005, 2006 and 2007 vintages were very ripe vintages: 2007 Domdechant Werner'sches Weingut Riesling Kabinett, trocken is very aromatic in comparison to 2008, which was considered a cool normal harvest. It is of utmost importance that Riesling needs a long maturation phase and this is mainly achieved in September with warm days and cold nights. Harvesting date depends on a range of factors: their portfolio of producing ranges of Classic, Kabinett, Spätlese; ripeness of grapes at 85°-90° Oechsle, 9% Total Acidity (TA), 3.3-3.5 pH.

Mr. Bott suggests that attention must be paid to tradition, to adapting to global warming and to observing the political arena, the wine laws and the competition.

Their most exported wines are:

2008 Domdechant Werner'sches Weingut Riesling Kabinett, halbtrocken, 16g/l Residual Sugar (RS), 10.5% of volume alcohol (alc.) and

2007 Domdechant Werner'sches Weingut Riesling Kabinett, traditionell, 57g/l RS, 8% alc.

The winery has won many medals at the Riesling du Monde Competition in '06, '07, '08 and '09. The Medaille d'Or 2009 was won by the Riesling Hochheimer Spätlese trocken 2007.

Weingut Künstler, Hochheim, Mr. Gunter Künstler, owner

The Künstler family owns this winery, and Gunter Künstler has been the owner and winemaker since 1988. Eighty four percent of the total vineyard area is planted with Riesling, the rest being vineyards of Chardonnay, Sauvignon Blanc, and Pinot Noir. The Riesling clones used are: 198, 239, 64, and an own selection. Some of the rootstocks used are SO4, Berner. This winery has been recently awarded with the *Wine of the year 2007* from Weingourmet magazine, also with *International Wine Competition & Decanter* Riesling trophies; and with the producer of the *Best Worldwide dry Riesling*.

The Hochheim style typically lies between the styles of the Mosel (lighter) and the Pfalz (heavier) and shows elegance and power. Riesling is definitely dependant on

soil: the more powerful the soil, the more powerful the Riesling eg. Heavy soils retain water, which travels from roots to clusters when needed; water retains minerals, calcium etc. which is brought into the taste/style of wine.

Their single vineyards and their specific soils are *Hölle* with clay marl, loess loam soil, showing wines with minerality and good acid; *Kirchenstück* with clay and sandy loess soils, showing fresh and light wines; *Stielweg* with a mixture of soils (clay, Cyrena mussel, marl, loess loam, sand) producing light and fine wines; *Domdechany* with chalky clay and loess loam soils, producing minerally warm and powerful wines.

Mr. Künstler says that the uniqueness of these wines is their great ageing potential. These monumental wines need time to age.

Viticulture is generally difficult (as no irrigation was allowed in past; disease control is difficult; often rains during harvest time). Budbreak is mid/end April; flowering is end May/mid June; harvest 15 September/10 October; sun hours in summer from 4:30am to 10:15pm; Erstes Gewächs should have sun warmth of 208 kilojoule per year per square metre.

All styles of Riesling are produced, depending on the individual vineyard physiological ripeness; the finished wine normally has 12-13.5% alc., 7.5 to 8.5g/l TA and 6-7g/l RS. Mr Künstler uses all styles of closures: stelvin for wines around €10-12; cork for wines from €20 and also in single vineyard wines.

Wines tasted:

- 2008 Künstler Herrnberg Riesling, QbA, trocken, 12% alc., € 9.00
- 2008 Künstler Hölle Riesling, Kabinett, trocken, 12% alc., Prädikatswein, € 11.00
- 2008 Künstler Weiss-Erd, QbA, trocken, 13% alc.
- 2008 Künstler Stielweg, "Alte Reben", QbA, 13.5% alc.
- 2008 Künstler Domdechaney Rielsing, QbA, trocken, 13% alc.
- 2007 Künstler Hochheim Hölle, QbA, 13% alc., Erstes Gewächs (Best dry Riesling, by Bruce Anderson, 93 points Wine Spectator)
- 2007 Künstler Kirchenstück Riesling, QbA, trocken, 13% alc.
- 2007 Künstler Hölle Riesling QbA, 12.5% alc.
- 2005 Künstler Hölle Riesling, Qba, 13% alc.
- 2004 Künstler Hölle QbA, 13.5% alc.
- 2008 Künstler Reichstal Riesling Kabinett (Prädikatswein), 7.5% alc.
- 2008 Künstler Hölle Riesling Auslese, 7% alc. (375 ml bottle)
- 2003 Künstler Hölle Riesling Trockenbeerenauslese, 6% alc., 347 g/l RS

Schloss Vollrads, Östrich-Winkel, Mr. Cavalla, sales, marketing and public relations manager

This castle of 63 ha was previously family-owned, but the main shareholder is now a German bank, the Nassauische Sparkasse. Of the 50 ha village wine (Ortslagen), 20 ha are Erstes Gewächs. This winery was one of the founding members of the VDP in 1897.

The vineyards are at a height of 50 to 210 m above sea level and have soils of Cyrena mussel, marl, and quartzite and are rich in minerals. The micro climate is ideal for producing Kabinett wines. Their Erstes Gewächs is harvested at 85°-95° Oe with a yield 35 hl/ha. A total of approximately 50 000 bottles annually is produced in a price range of € 13 to € 35. As the castle holds many event a second lable, affordably price, has been introduced. This has helped to improve their sales of the more expensive Riesling range to the walk-in public.

Schloss Vollrads uses rootstock SO4 and Geisenheim clone 239.

Most of their wines are bottled in the green Rheingau “Flöte” bottle and the closures are vino-lock glass with a capsule cover.

Wines tasted:

- 2008 Sommer, Riesling, QbA, 11 % alc. €6.90 (second lable)
- 2008 Schloss Vollrads Riesling trocken, 12.5% alc., Estate bottled
- 2008 Schloss Vollrads Riesling, Kabinett, trocken,
- 2008 Schloss Vollrads, Riesling Kabinett, feinherb (halbtrocken)
- 2007 Schloss Vollrads, Riesling Spätlese, trocken, 12.7% alc.
- 2006 Schloss Vollrads, Rheinriesling, Erstes Gewächs, 13% alc.
- 2007 Schloss Vollrads, Riesling Spätlese, 9% alc.
- 2007 Schloss Vollrads, Riesling Auslese, 8% alc. (375 ml bottle)

Weingut Robert Weil, Mrs. Verena Schoettel, public relations manager and member of winemaking team

This 73 hectare big, family-owned winery, has an Italian investment partner. Their best individual vineyard sites are *Kiedrich Gräfenberg* (10 ha, south-west facing, stony and phyllite soils with loess and loam) and *Kiedrich Turmberg* (4 ha, south-facing, decomposed slate with loess and loam). The average age of their vines is 25 years old.

Traditional and modern winemaking techniques are used: fermentation in 1200 litre old oak barrels for Erstes Gewächs, as well as stainless steel for other wines. For fermentation some wild yeast is allowed for more terroir character, otherwise cultured yeast is used. Filtration takes place mostly in January; sterile filtration at bottling.

Wines show a distinctive mineral tone, with intense flavour, elegance and finesse. There are 3 wine ranges: village wines, specific vineyard wines and top growth, all vinified in 3 styles (dry, off dry, sweet). The Robert Weil Riesling Spätlese Trocken is a wine recently mentioned in Jancis Robinson article on Riesling, of 3. September 2008⁴⁰. This winery is a brand known very well from Japan to the USA. The use of a soft light blue lable has resulted in instant recognition everywhere.

Tasted wines:

- 2008 Weingut Robert Weil Riesling trocken, 12% alc., € 11.
- 2008 Kiedrich Klosterberg Riesling trocken, 13% alc., € 20
- 2008 Kiedrich Turmberg, Riesling trocken, 13%alc., € 20
- 2008 Kiedrich Gräfenberg, Erstes Gewächs, Riesling trocken, 13.5% alc., € 33
- 2008 Weingut Robert Weil Riesling Kabinett, 8.5% alc., 54 g/l RS
- 2008 Kiedrich Turmberg, Spätlese, 8.5% alc., € 33
- 2008 Kiedrich Gräfenberg, Riesling Spätlese, 8.5% alc.,
- 2008 Kiedrich Gräfenberg, Riesling Auslese, 8.5% alc.,(375 ml bottle)
- 2006 Kiedrich Gräfenberg, Riesling Beerenauslese, 8% alc., 204g/l RS, 11g/l TA, € 140

Weingut Fritz Allendorf, Oestrich-Winkel, Mrs. Judith Rossberg, sommelier

This very modern family winery of 58 ha produces more than one Erstes Gewächs. It has vineyards in *Roseneck*, *Jesuitengarten*, *Hasensprung*. The magazine *Weinwelt* awarded the 2007 Winkler Hasensprung Riesling Kabinett trocken the *Best Riesling in Rheingau*; *Wine Spectator* recommended the Erstes Gewächs Jesuitengarten 2007, which also won a Gold Medal at IWC Challenge 2009.

The Allendorf family produces a *Roter Riesling*: “original form” of Riesling, with a slightly red-skinned berry similar to the berry of Gewürztraminer and Muskateller. The wine was made from some 2000 vines, from the research station in Geisenheim. This classification of Roter Riesling is allowed in Germany. The advantage of the grape is a thicker skin and it is less susceptible to diseases and botrytis (as well as sunburn). The wine has a shy nose, has herbal, spicy flavours, with pleasant acidity. This form of Riesling may be of interest to the warmer New World countries.

⁴⁰ <http://www.Jancisrobinson.com/articles/jrs03403.html>

Wines tasted:

- 2008 Allendorf Riesling, QbA, trocken, 12% alc., € 5.70
- 2007 Allendorf Winkeler Jesuitengarten, Erstes Gewächs, trocken, 12.5% alc., € 19
- 2008 Allendorf Winkeler Jesuitengarten, halbtrocken, 10% alc., € 6.20
- 2008 Allendorf Winkeler Hasensprung, Roter Riesling

Diefenhardt Weingut, Martinthal, Mr. Peter Seyffardt, owner

This 18 hectare winery is 21 years old, at 200 m above sea level, and has 85 % of its vineyards planted with Riesling. Mr. Seyffardt is well travelled and has specialized in terroir: his best quality Rieslings come from vineyards *Martinthal* (loess soil where the nose and palate show pears and peaches, elegance and good ageing potential) and *Rauenthal* (phyllite soils bring lemon, citrus aromas and flavors and good finesse). He would like to give the following recommendations for New World wine growers: extend the ripening periods where possible, spray with copper (not acceptable in Germany), use good canopy management, and use minimal pruning. He uses biological and organic treatments in the vineyard, applies very little nitrogen, some herbicides, and does hand selection before harvesting. His wines may go through malo-lactic fermentation and he may remove the too harsh acids, eg with calcium carbonate. He prefers terpenes in older dry or older sweet wines. In Germany he says that some Riesling wines show UTA (unspecific ageing notes), which he believes is a result of stress, too high yields and too little nitrogen.

Tasted Wines:

- 2008 Rauenthaler Kabinett, 11% alc., € 7.90
- 2008 Martinthal Erstes Gewächs, € 15.90

Henkell & Co., Wiesbaden, Mr. Walter, chief winemaker

This company, with its huge portfolio, belongs to Dr. Oetker, and has a range of local and international wines, champagnes, sekt, vodka and liquors. The German market consumes a lot of Riesling sparkling wine (Sekt) and here a short insight in how they maintain quality:

The German Sekt production is very technical, at 1 Million liters of Sekt a year. It is based on terroir (contracts with suppliers in all German Riesling areas), on the specific micro climates (aim for long vegetation period, ripening per region), and on the wine making (quality scouts are employed per region, the cuvees are tasted blind and evaluated). Riesling Sekt should show cultivar typicity. Their standard cuvée is mostly 'a masculine wine', with green apple flavours, little minerality, a balanced

body. The premium cuvee is mostly 'feminine', with peach/maracuya flavours, clear minerality, and a fine body. Sekt, by law needs to lie 9 months on the lees; the liqueur d'expédition, a mixture of wine and sugar added to balance the acidity or to give the wine a degree of sweetness, is house specific and a well guided secret.

Mr. Walter says that Riesling in New World is worthwhile: the vine can tolerate dry conditions and develop great character, but any stress can cause different types of wine (see 2003 German vintage). He regards the petrol note as a fault, unless in very old wines. Terroir and popular taste profiles are the most important criteria for planting Riesling.

Fürst von Metternich-Winneburg'sche Domäne Schloss Johannisberg,

Mr. C. Witte, managing director

This top end winery also belongs to Dr. Oetker and lies in the independent community appellation Schloss Johannisberg. The site is called Johannisberg with the single vineyard Schloss Johannisberger. Total area under vine is 35 ha, and approximately 240 000 bottles a year are produced. It won the 2009 Gault Millau honorary title collection of the year, for 2007 vintage.

Mr. Witte believes in the Riesling renaissance as their exports to Asia, USA, Italy, Spain have increased. This is, of course, also because Schloss Johannisberg profited from the relationship between Fürst von Metternich and the Rothschild bankers historically, who exclusively supplied the aristocrats in the world with Riesling wines.

The Riesling vines have the rootstock SO4 and the clones are GM210, 239, 64.

Viticulture falls under their marketing term "umweltschonender Weinbau" (aiming to maintain natural and healthy vineyards, to reduce any chemicals, biological sprays etc. to the minimum, but is not registered as organic). This has mainly been possible because the Rheingau has managed to minimize the use of insecticides in the last 5 years, by using pheromones to control insects in the vineyards.

He advised that typical Riesling should have a backbone of acid. The year 2006 showed warm nights which caused the vines to loose this acid backbone (untypical for Rheingau). Terpenes or petrol should be described as 'fruits de confit', which is an acceptable aroma and flavour in older Rieslings.

Wines tasted:

2007 Schloss Johannisberg Riesling Gelblack, QbA, trocken, 12.5% alc.,
€ 12

2007 Schloss Johannisberg Riesling, Rotlack, Kabinett, trocken, 12.5% alc.,
€ 17

- 2007 Schloss Johannisberg Riesling, Grünlack, Spätlese, trocken, 8.5% alc., € 27
- 2007 Schloss Johannisberg Riesling, Silberlack, Erstes Gewächs, 13% alc., € 34.50
- 2007 Schloss Johannisberg Riesling, Gelblacklack, QbA, feinherb, 12% alc., € 12
- 2007 Schloss Johannisberg Riesling, Rotlack, Kabinett, fein-herb, 11.5% alc., € 17
- 2007 Schloss Johannisberg Riesling, Grünlack, Spätlese, 8.5% alc., € 27
- 2007 Schloss Johannisberg Riesling, Rosalack, Auslese, 7.5% alc., € 34.50

Weingut Georg Breuer, Rüdesheim, Miss Theresa Breuer, daughter of owner and winemaker

This is small quality family winery has a total of 32 ha, in two communities, *Rauenthal (Nonnenberg and Rothenberg)* and *Rüdesheim (Berg Roseneck, Berg Rottland, Berg Schlossberg)*. Total area under Riesling vines is 26 ha with very low yields (an average 28 hl/ha).

The steep vineyard in *Rüdesheim* has soils of loess, loam and slate, quartzite, and is south facing, and the hills in *Rauenthal* have mostly soils of loam and are south west facing. The *Nonnenberg* is a monopole holding since 1990 which did not receive VDP Erstes Gewächs status. This was one of the reasons why Bernhard Breuer left the VDP. Their portfolio shows great marketing potential eg the 'Terra Montosa', which was a CHARTA wine, is an ideal food wine, but is not necessarily from one vineyard only. It is a cuvee from a selection of top sites.

Wines tasted:

- 2008 'Estate' Rüdesheim, 11.8% alc., € 11
- 2007 'Estate' Rauenthal, 12.4% alc, € 10
- 2007 Terra Montosa (cuvees of single vineyards), 12% alc., € 16
- 2007 Berg Roseneck, 12.3% alc., € 28
- 2007 Berg Rottland, 12.5% alc., € 28
- 2007 Nonnenberg, Rauenthal, monopole, 12% alc., € 34
- 2006 Nonnenberg, Rauenthal, monopole, 12% alc.
- 2007 Rheingau Auslese, 9.5% alc., 95g/l RS
- 2007 Berg Rottland Auslese Goldkapsel, 8.5% alc., € 34

Hessische Staatsweingüter GmbH Kloster Eberbach, Mr R. Bengel, head oenologist and viticulturist

This winery was established in 1136 by a Burgundian Cistercian monk. From 1866 it belonged to the state of Prussia (black eagle on bottle as reminiscence). Since 1945 the owner is the German regional province Hessen and since 2003 it is a GmbH (Pty Ltd) with Hessen as main shareholder.

The total area under vine is 212 ha of which 170 ha are Rheingau vineyards. The other hectares are in the Hessische Bergstrasse, and of these 85% are Riesling. This is the biggest wine producer in Rheingau.

Since 1806 world renowned auctions take place in the monastery. It is also one of the founding members of the VDP and initiator of the classification pyramid. The monastery is a medieval monument and has an impressive cellar with wines from 1706. The oldest wine is a Riesling from Hochheim from 1706. Kloster Eberbach has had recent press attention for its Assmannshäuser Höllenberg Pinot Noir⁴¹ as well.

The winery has vineyards in the Rheingau, in Assmannshausen, Rudesheim, Rauenthal, Hochheim and Kloster Eberbach and has 3 wine cellars. The favourite and monopole vineyard of the monks is at Kloster Eberbach, *Steinberg*, around 32 ha, 150m above sea level, with a quarry-stone wall of 3.2km enclosing it. Steinberg has top-soils of loess-loam and subsoils of slate.

This monastery has brought in new technology: a new modern cellar of 5000m² was built in 2008 at the Steinberg vineyard, mainly underground. At 1.8 million litres capacity in tanks it can receive a capacity of 100 tons of grapes per day. An attached storage cellar was built for all the Hessisches Staatsweingut Kloster Eberbach 1.2 million bottles a year. Most wines are closed with the Stelvin and Stelvin-Lux cap.

Wines tasted:

- 2007 Domaine Assmannshausen Höllenberg, QbA, trocken, 13% alc., € 12.80
- 2007 HSKE⁴² Berg Schlossberg, Riesling, Erstes Gewächs, 12.5% alc., € 25
- 2008 HSKE Rauenthaler Baiken, Riesling trocken, 11.5% alc., € 7.60
- 2008 HSKE Erbacher Marcobrunn, Riesling trocken, 12% alc., € 10.10
- 2007 HSKE Steinberger Spätlese, 8%alc., € 20
- 2008 HSKE Domdechaney Riesling Beerenauslese, barrel sample, approx. price € 85 per 750ml

⁴¹ *Das grosse Dutzend*, pg 110 in Fine, Das Wein Magazin, 3/2008

⁴² HSKE= Hessisches Staatsweingut Kloster Eberbach

1959 Rheingau Kabinett, Steinberger Riesling Trockenbeerenauslese, Naturrein, Eltville with around 231g/l RS; 14.8g/l TA, and a value of around € 1000 per bottle.

An excursion into the Mosel shows how specialized the Mosel winemakers are. They have a different location, aspect, soils and micro-climates to deal with.

Dr. Loosen, Bernkastel-Küs, Mosel, Mr. Michael Stahlmann, marketing and export manager

The winery has 25ha in 280 parcels in the Mosel and the Pfalz (the estate JLWolf). These disconnected parcels and the very steep, densely planted vineyards (up to 75% slope angles; therefore very labour intensive of up to 2000hrs per hectare per year) make this a large operation. Vineyards are mostly south-facing. Soils are mainly different coloured slates, some volcanic soils

Ripening in 2008 was a test of patience according to the winery. The harvest finally started in mid October. Dr. Loosen uses double de-acidification when necessary. The year 2008 presented good Kabinett and Spätlese wines.

Dr. Loosen has consulted to the biggest US Riesling supplier Chateau Ste-Michelle, in Washington State and has promoted Riesling all over the world.

His first class sites are *Erdener Prälät* (his 1.4ha is the biggest single owned parcel) *Wehlener Sonnenuhr*, *Ürziger Würzgarten*, *Erdener Treppchen*, *Bernkasteler Lay*, *Graacher Himmelreich*.

His marketing tools are: the terroir, especially slate soils, the very old vines (averaging 60 years), the top vineyard sites, the continuous style of elegant, racy, refreshing, light, minerally Rieslings and the hospitality of his staff and company. For the different styles of wine, he uses coloured capsules on the bottles: blue= dry style; white= fruity, traditional; gold= botrytis selected, making it also easy for overseas marketed wines.

Wines tasted:

- 2007 Dr. Loosen Blauschiefer Riesling trocken, 12 % alc., 8g/l RS; 7.8g/l TA, € 8.60
- 2007 Bernkasteler Lay Riesling, QbA, trocken, €10.60
- 2007 Graacher Himmelreich Riesling Kabinett, feinherb (med-dry), 10% alc., 22g/lRS, 7.9g/l TA, € 10.60
- 2007 Bernkasteler Lay, Riesling Kabinett, 8% alc., 54g/l RS, 8.1g/l TA, € 10.60

- 2007 Erdener Treppchen, Riesling Kabinett, 7.5% alc., 57g/l RS; 8.1g/l TA,
€ 10.60
- 2007 Ürziger Würzgarten, Riesling Spätlese 7.5% alc., 76g/l RS, 8.3g/l TA,
€ 13.80
- 2007 Wehlener Sonnenuhr, Riesling Auslese; 7.5% alc., € 26.80

Egon Müller Scharzhofberg, Wiltingen, Mosel

This well-known 8ha south-facing vineyard, with deep slate soils is on the Saar, a tributary of the Mosel. It is made up of vines from different clones and some are unknown from before clonal selection. The Egon Müller Scharzhofberger vineyard has produced Riesling wines since 1797 and the winery has vintages dating back to 1921: this vineyard produces light wines with deep fruit and minerality. Depending on vintage, different levels of Prädikat wines can be achieved. Clearly in Germany, and especially in the Mosel, the biggest difficulty is to ripen grapes under the prevailing climatic conditions: Atlantic climate, cool summers, mild winters, rainfall all year. These factors leads to slow ripening, full aromatic maturity at low sugar levels (words used to define these wines are “pure, refined, mineral, firm backbone of intense acidity”)⁴³. A typical wine analysis would be: 8-9% alc. with 30-50g/l RS, and 8.5-9.5g/l TA.

It is clear that a comparison between the Mosel and South African Riesling would be more complicated. The Rheingau winemakers, with the research that has gone into that region, show a wider variety of possible methods of viticulture and viniculture useful for South Africa.

⁴³ <http://www.thewinedoctor.com/germany/egonmuller.shtml>

6.1.6 Recent Rheingau Vintages ⁴⁴

In recent years, conditions have required a greater focus on quality strategies in the management of vineyards and harvesting times. These conditions were:

2003: Extreme weather, hot conditions (2003 had the most sunshine hours since 1860). Because of drought stress, irrigation was permitted. The harvest could begin 3 weeks earlier. It was a year of superlatives; most grapes in the Rheingau were of Spätlese quality with a high proportion of Auslese. Rheingau was considered as one of best appellations for 2003; an opulent vintage with sensational aromas, a lively/ fine acidity and long finish. 4 out of 5 stars (Decanter)

2004: A classic Riesling year; reminiscent of 1990. There was a variation of warm daytime and cool night time temperatures. Healthy grapes allowed full maturation, resulting in fresh, fruity and well structured, balanced white wines, with pronounced aromas. In some vineyards of the Rheingau grapes were harvested for Eiswein as late as 21st December. 4 out of 5 stars

2005: Exceptionally good year. Must weights were of Prädikat wine quality and very close to 2003. A golden October with some Rheingau wineries reporting 10% lower than average yields, but of excellent quality; comparable to the vintages of 1971, 1921, 1953. 4 out of 5 stars

2006: Record weather conditions; a hot July (warmest since 1884) while August was cold and had high rainfall. Generally warm and the Rheingau benefited from this phenomenon with an earlier, shorter harvest. 3 out of 5 stars

2007: Perfect weather conditions; highest temperatures during the growing season with a wonderful autumn. The result was a broad spectrum of wines.

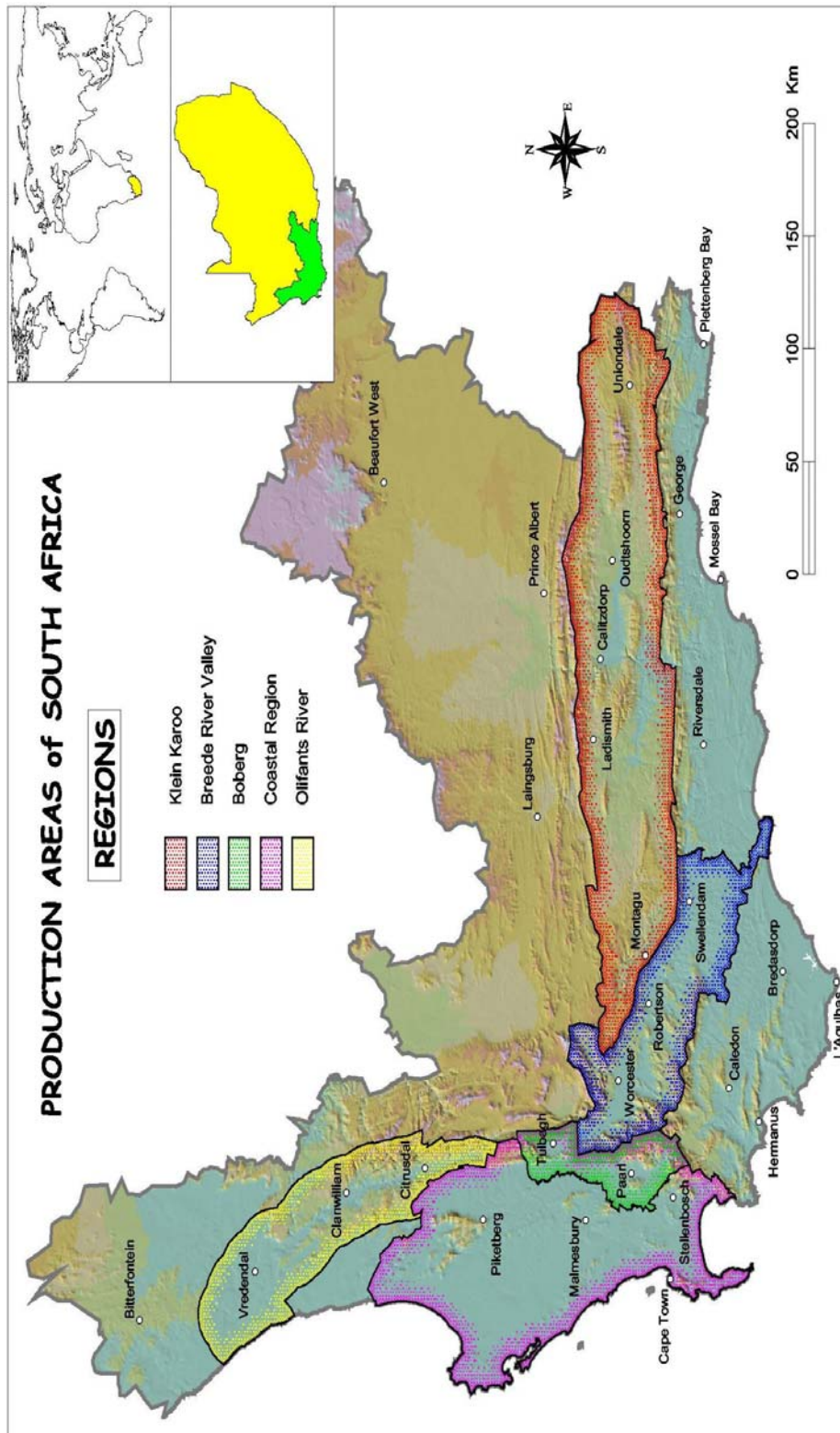
2008: Good in quality harvest and rich in quantity. There was early blossoming and a hot summer. Cold rains in September and sun in October contributed to wines with a high level of complexity.

Riesling wines have become more consistent in quality over these last years.

⁴⁴ Comments were taken from www.Decanter.com/vintageguides/region and from the websites of Robert Weil and Domdechant Werner'sches Weingut

6.2 South Africa

6.2.1 Map



6.2.2 Introduction, History and Wine Law

In the midst of the financial markets' crash of 2008 the South African Wine Industry somehow still has been able to grow exports. There is a sense of optimism among Cape wine producers, even with the strengthening of the Rand. Of course this is not the only reason South Africa has benefited: drought and fires in large parts of Australia have created a shortage of wine in Western Europe and the United States. This has given opportunities to South African wineries to extend their export shares.

The domestic market in natural wine shows stagnant sales in 2008 at 312 million litres, but exports have increased by 31.7% in 2008⁴⁵

SAWIS World and Local News⁴⁶, December 2008, quotes total exports of natural wines reached 403.1 million litres (for the twelve month period from November 2007 to October 2008).

Areas under vine in South Africa: Crouchen Blanc and Weisser Riesling

According to SAWIS Nr.32⁴⁷ the area under vine (wine and table grapes) in 2007 is 125 762 ha.

The total area under wine grape vineyards in 2007 is then 10 1957ha.

The SA Wine Industry Directory 2009/2010 has written a small summary of Rhine Riesling and Crouchen Blanc. See Appendix 15.12 *SA Wine Industry Directory 2009/2010, pg 98*, referring to the updated hectares.

Statistics do not specify Rhine Riesling⁴⁸ in plantings from 1.12.06 to 30.11.07 but they do mention the uprooted area of 40 ha of Weisser Riesling (in the regions Malmesbury, Paarl, Robertson, and Stellenbosch). During this same time 83 ha of Crouchen Blanc (still as Cape Riesling in the statistics) was uprooted.

In 2007 Crouchen Blanc actually represented 1.1% of the total ha of white wine varieties (i.e. 982 ha in total), while Riesling represents only 0.2% (240 ha in total).

Crouchen Blanc is grown mainly in Worcester (50%), Paarl (27%) and Stellenbosch (9%), while Riesling is grown in Stellenbosch (34%), Worcester and Klein Karoo

⁴⁵ *Further Decrease in 2009 wine grape harvest*, Yvette van der Merwe, SAWIS, 2009

⁴⁶ World and Local News, L. Arendse, SAWIS, December 2008

⁴⁷ South African Wine Industry Statistics, Nr.32, SAWIS

⁴⁸ Rhine Riesling= Weisser Riesling =Riesling in this dissertation

(17% each), Robertson (16%), Malmesbury (12%) and Olifantsriver (3%). Some regions with very small Riesling vineyard areas, like Elgin, Durbanville and Constantia have become increasingly more important, but they are too small to be mentioned in the latest statistics. These areas show that the wine industry's interest of growing Riesling in cooler areas, may present a very viable option. Also refer to the Appendix 15.4 *Riesling Clones sold in SA over the last 5 years, pg 86*, which shows that more Riesling vines are ordered in the districts of Hermanus, Elgin and Durbanville.

In South Africa in 2008 the average grape price per ton for Weisser Riesling was R3849, which is R110 higher than Chardonnay, and R819 lower than Sauvignon Blanc. The poor prices achieved for Riesling in the past were partly responsible for the uprooting of Riesling vines.

*Weisser or Rhine Riesling in South Africa*⁴⁹

In the 1950s that Prof. Orffer identified that there were two different Riesling names in South Africa, but only one was a true Riesling. In the early 1980s it was confirmed, with Cape Riesling was a synonym for the French Crouchen Blanc⁵⁰. The grape is therefore incorrectly identified, according to ampelographers; confusion that could have occurred in the Van Riebeeck and Van der Stel eras, i.e. 1656 when Cape Riesling was brought to South Africa and cultivated as "Green leaf steen" (Groenblaarsteen). White Riesling may have reached South Africa in 1664.

Such confusion is not limited to South Africa as other synonyms⁵¹ available and acceptable in the world for Rhine Riesling include:

Weisser Riesling, Rhein-Riesling, Roessling, Rheingauer, Johannisberger, Hochheimer etc. in Germany.

Gentil (e)-Aromatique, Petracine in France.

Riesling Renano, Reno in Italy

Johannisberg (J.R.) and White Riesling in the USA.

⁴⁹ Appendix 15.1 *Riesling Profile, pg 83*

⁵⁰ Memorandum 1.March 1999 from Ernst Le Roux, from Die Wyn en Spiritusraad, to Riaan Kruger

⁵¹ There are many more names defined in *Vines, Grapes and Wine, The Wine Drinker's Guide, Guide to Grape Varieties, Classic Grape Varieties*, books by Jancis Robinson

Wine Law: Definition for sweetness in South Africa

According to SAWIS regulations⁵², labeling requirements for wines (excluding fortified and sparkling wines) are:

- extra dry : a maximum residual sugar content of 2.5 g/l
- dry : a maximum residual sugar content of 5 g/l
- semi-dry : a residual sugar content between 5 and 12 g/l
- semi-sweet : a residual sugar content between 5 and 30 g/l
- sweet : a residual sugar content of more than 20 g/l

Weisser Riesling clones available

Clones available for Weisser Riesling in South Africa are WR 110 F and WR 239 Z, both from KWV Vititec, imported in 1981. They are characterized by their viticultural data as “average production and vigour”. Wine data for WR 110 F shows this is generally a warm area clone, good in Australia, producing spicy, floral aroma. WR 239 Z is the most widely planted clone in South Africa; it is very fruity - citrus-, spicy and floral, with a wide range of terpenes.

Cape Riesling or Crouchen Blanc “produces interesting light white wine with a typical straw character”⁵³; Under Wine data of the scion clone CR 1013 B⁵⁴ one finds some positive remarks, such as, “very good wine (Uitkyk, Van Loveren, Alphen wine club)”. Mr. van Rensburg, of Distell, confirmed that Paarl/Cape Riesling at one point sold more than 1 million litres annually. *Appendix SA Wine Industry Directory 2009/2010, pg 98*, contains definitions on Rhine/Weisser Riesling and Crouchen Blanc.

The South African Wine Law⁵⁵, Amendments to the Liquor Product Legislation, 12. June 2009, reads under point 3.4:

“The new dispensation regarding the use of "Riesling" is set out in this Table.

As explained in a previous newsletter this entails:

As from and in respect of wines of the 2010 harvest -

- (a) Cape Riesling may be shown as Crouchen, but not as Riesling; and

⁵² Appendix 15.9 Labeling requirements for South African wines, pg 95 and Appendix 15.8 Sugar or Sweetness (incl.SA and German data), pg 94

⁵³ according to Pg.390, South Africa Wine Industry Directory 2006/7

⁵⁴ according to Pg.390, South Africa Wine Industry Directory 2006/7

⁵⁵ Appendix 15.5 Wine Law SA, pg 89 and Annexure B (to the Wine Law SA), pg 90

(b) Weisser Riesling/Rhine Riesling may be indicated as Riesling.

Products of prior harvests must still comply with the pre-2010 dispensation and may be sold as such until stocks are exhausted⁵⁶.

This will still not allow Cape Riesling to be exported to the European Union as such - it will have to be indicated as Crouchen.”

Riesling Wine producers

Wine producers who make a Rhine or Weisser Riesling, according to Platter’s South African wines, 2009, Pg. 25, are:

De Wetshof Estate, Robertson: a dry Rhine Riesling (5g/l RS) and a Noble Late Harvest

Hartenberg Estate, Stellenbosch: an off-dry Weisser Riesling

Klein Constantia Estate, Constantia: a dry Rhine Riesling and a Noble Late Harvest

Buitenverwachting, Constantia: an off-dry Rhine Riesling (7g/l RS)

Jack & Knox Winecraft, Somerset West: a dry Riesling (made from vineyards in the Klein Karoo)

Jordan Wine Estate, Stellenbosch: an off-dry Rhine Riesling (9.6g/l RS)

Nederburg Wines, Paarl: a dry Rhine Riesling

Paul Cluver Estate Wines, Elgin: an off-dry Riesling (8.6g/l RS) and a Noble Late Harvest

Ross Gower Wines, Elgin: a dry Riesling

Thelema Mountain Vineyards, Stellenbosch and Elgin: off-dry/semisweet Rhine Riesling (12.5g/l RS) and dry Sutherland Rhine Riesling (5g/l RS) and a Late Harvest (103g/l RS)

Villiera Wines, Stellenbosch: an off-dry Rhine Riesling and a Noble Late Harvest

Woolworths: an off-dry Riesling (7g/l RS), from Villiera Wines

Fairview, Paarl: a dry Weisser Riesling from Wine of origin Darling

⁵⁶ Appendix *Annexure B, (to the Wine Law)* Table 1, *pg 90*, Grape cultivars which may be used for the production of wine. There are still names like Emerald Riesling and Olasz on the official cultivar list.

Rietvallei Estate, Robertson: a semi-sweet Rhine Riesling (14g/l RS)

Meerhof Winery, Swartland: 2ha of Weisser Riesling, no single variety wines any more, Riesling is integrated in a white blend

La Vierge, Hemel-en-Aarde Valley: dry Weisser Riesling

Bergsig Estate, Breedekloof, and Delheim, Stellenbosch (Edelspatz NLH), Weltevrede, Robertson (natural sweet with botrytis) and Woolworths have/are discontinuing their Riesling wines.

(Consider that: Off-dry as mentioned in the Platter is semi-dry, according to SAWIS and 5-12g/l RS; dry may include wines to be extra-dry)

The above mentioned wineries are not all the wineries in South Africa, producing Riesling, but it is difficult to source or know all of them, as there is not enough reliable information on this topic.

6.2.3 Interviews with some Wineries producing Riesling

Also refer to Appendix 15.3 *Contacts and people visited in South Africa, pg 85*

Nederburg Wines, Paarl; Johannes van Rensburg, former farm manager and viticulturist, and Tariro Masayiti, white wine winemaker

Nederburg, established in 1792 and owned by Distell, produces 1.1 million cases a year. According to Mr.J. van Rensburg, Rhine Riesling was first made in 1978, as a young trendy wine, off-dry, at about 6-7g/lRS.

Nederburg planted Riesling vineyards on Paulsen rootstock at Paul Cluver, Elgin, allowing some botrytis (about an average 10% of total harvest) to develop, for more mouthfeel and better quality. At the time, harvesting was very labour intensive and the workers had to be taught to pick “the right grapes” (“pick what you would be prepared to eat!”). Even then it was clear that rootstocks and clones were important. These were provided by Vinpro and KWV (now Vititec). The Cape Riesling clones are CR230 and CR 231 and the Rhine Rielsing clone is the WR 239.

Both Rhine Riesling and Cape Riesling are still produced to this day. Cape Riesling is picked, mostly in February, at 19° Balling, with a max of. 21°B, in order to keep its freshness, lively acidity and to keep alcohol low. Rhine Riesling will hang longer, depending on the condition of the grapes, the sugar, and the acidity.

J. van Rensburg believes the South African market can live with 3 styles of “Riesling”: Cape Riesling as the dry style (2.4g/l RS), fresh, easy wine, lower alcohol.; Rhine Riesling as an off-dry, food wine, even with a touch of botrytis and a Noble Late Harvest (NLH) for dessert and auction wines.

In 2008 41 000 litres Weisser Riesling and 540 000 litres Cape Riesling, mostly from Paarl Valley, were certified.

Tariro Masayiti is the Nederburg winemaker of white wines. He explained the planting of Weisser Riesling at the Nederburg farms: 20 ha are planted on Plaisir de Merle, on the Simonsberg slopes. The best lots are taken for the varietal wine, while other lots are taken for the Special Late Harvest. The Riesling Noble Late Harvest wines come from the best lots at the other planting, 5 ha in Durbanville, from Parker and Altydgedacht. About 3 200 bottles of 375ml are produced for the auction wines.

Masayiti says he looks foremost for freshness in Riesling, then ripe fruit, and the ideal would be lower sugars (2008 has shown that this is possible). The 2008 Winemaster's Reserve Rhine Riesling shows 4.4g/l RS and 7.7g/l TA, a dry wine in the classic Winemaster's Reserve collection. Phenolic ripeness is achieved at lower sugar levels, with good acid, and fermentation to dry allows for a balanced wine. The Rhine Riesling 2006 had 5.1g/l RS and in 2007 the wine was a semi-sweet with 13.3g/l RS. Masayiti says that Riesling does not have a formula, but that perfect balance is what is looked for.

Winemaking: At Nederburg, Rhine Riesling is picked and sorted by hand, as slopes are difficult for machines. Grapes are destemmed, crushed lightly, sometimes left on skins overnight (depending on vintage). Free-run and some lightly pressed juice are taken for this wine, settled, and occasionally corrected for acid with tartaric acid. The wine is moved to different stainless steel tanks allowing different yeasts to be used eg. QA 23 (which can break down terpenes) and VO 3 (gives great mouthfeel). Different treatments are employed to improve wine characteristics, such as mouthfeel; these include the pump over of the top part of lees, racking off the main lees and natural fermentation. Fermentation can last 4 weeks while the blend is only decided when the wine is taken off the lees and about to be bottled, which can be in July/August.

Nederburg Winemaster's Reserve Rhine Riesling 2008 won a silver medal at the Old Mutual Trophy Wine Show in June 2009. It is a dry Riesling of 4.4g/l RS.

At the Nederburg Auction, in September 2009 (its 35th anniversary), the private Bin S316 Weisser Riesling, a Noble Late Harvest, made in 2001 by Macici, chief winemaker, (his first vintage at Nederburg) will be included.

Neil Pendock included the Nederburg Riesling 2007 in his Top Ten selection in the Sunday Times of 14th June 2009.

Villiera Wines, Stellenbosch Koelenhof: Jeff Grier, owner

Established in 1983, Villiera has more than 200ha under vines, with an average yield of 8 tons/ha. Villiera processes 2 500 tons of grapes each year. Villiera produces three Riesling based wines, which make up only 1% of the total portfolio of wines: Villiera Rhine Riesling '07 is off-dry. The Woolworths Rhine Riesling '08 is off-dry. There is a Cellar Door Riesling NLH '05.

The Villiera Rhine Riesling has been produced since the 1983 vintage, the Woolworths label since 2000 and the Cellar Door NLH only for the 2005 vintage. Their oldest Riesling vineyard is 20 years old and is low yielding.

J. Grier believes that his wines rate well. He does not enter competitions as his production of Riesling is sold out, and there is no benefit. He thinks the cultivar should be taken more seriously in competitions.

Off-dry styles are preferred, with refreshing acidity and residual sugar to balance; Grier aims for light & fresh wines showing dried apricot and cinnamon/cloves. Wood is not used. Harvest is timed in terms of sugar/acid ratio, phenolic ripeness, the appearance of vineyard (stress levels, degree of botrytis) and weather forecasts. The typical analysis when ready to pick: is at 22°-23°B, 8g/l TA, 3-3.1 pH

The soil is Groenstad/Duplex with light marginal top soils, and underlying clay, the latter eliminating the need for irrigation.

The climate is classic Mediterranean, with cool afternoon breezes off False Bay, during the ripening period.

Villiera's vineyards are low-lying, resulting in misty autumn conditions, and some botrytis. No insecticides are used.

Winemaking: As Riesling is a mid-season ripener, it is usually ready for picking after Sauvignon Blanc and before Chenin Blanc. Villiera do whole bunch pressing for drier wines and leave the juice in contact with skins when doing off-dry wines. They use up to 5% botrytis grapes for phenols and aromatic development. The juice is extracted oxidatively, so the phenols can drop out and terpenes are reduced, followed by cool fermentation and quick bottling; the wines can mature in bottle. Typically, the wine has 12.5-13% alc., 6.5g/l TA, 3.2 pH, 7g/l RS.

The bottles are sealed with cork, but Grier is considering Stelvin for wines that are not for aging but to be drunk immediately.

Grier intends to continue making Riesling and is experimenting with it. He believes both the wine press and winemakers should believe in a comeback for this cultivar and that Riesling can be sold at a good price. He further believes that Riesling viticulture will improve in South Africa and that an increase in Riesling plantings illustrates this interest. He finds labeling difficult as a Riesling classified as off-dry by residual sugar content may actually taste dry and thus should be sold as dry. He sees the vintages 1997 and 2003 as the best years for Riesling in South Africa, with 2009 showing great potential.

La Vierge, Hemel and Aarde Valley (Elgin/Walker Bay): Marc van der Halderen, winemaker

Established 2006, La Vierge has 46 ha in total under vines, (20% of which is white). They produce dry Weisser Riesling. The 2008 maiden vintage is not yet released. The 2009 vintage is intended as a Noble Late Harvest (the grapes had not been harvested on 23 March, 2009 when we met). Riesling is about 5% of their total portfolio.

With a cooler climate and 750mm rainfall per year, this area seems to be similar to Elgin and Constantia; also with a similar style of wine: crisp, fresh, citrus and tropical notes with mineral texture on palate.

The soil is Bokkeveld series with loam and shale, clay subsoil (so medium fertile, with good water retention). The vineyard lies 300m above sea-level and is 10km from the coast, with a North-East aspect. Rainfall is mostly from May to November while the winters see temperatures of 5-15 °C. Summer temperatures remain mostly below 30°C. There is a cooling South-Easter wind in summer and frost and hail are rare.

The Riesling clones used for these new vineyards are WR 110 and WR 239. In the vineyard, control of weeds is through ploughing. No general pesticides are used, and only contact fungicides are used to control mildews.

Harvested grapes from the maiden vintage were picked at 20.5°B, 8.1g/l TA and 3.15 pH, resulting in wine technical specifications of 12% alc., 7.1g/l TA, 3.2 pH, 1.7g/l RS. A conglomerated Diam Cork was used during bottling.

The winemaker believes New World countries can produce good Rieslings, although with higher alcohol and less acidity, thus suitable for drinking earlier. He believes the austere, crisp style or the seductive, sweet style are the best ways to market Riesling.

Deetlefs Wine Estate, Breede River Valley, Rawsonville: Philipe du Toit, viticulturist and Ilse van Dijk, winemaker

Deetlefs is family owned since 1822 and do not appear in Platter's Guide. They have produced Riesling since 1998. The total farm is 102ha, with 2.2ha Weisser Riesling.

Riesling production is 9000 litres/pa out of a total of 700 000 litres. Deetlefs is the only wine estate in this region that bottles a single varietal Weisser Riesling.

They bottle two Rieslings: Deetlefs Estate Weisser Riesling, sweet (21.2g/l RS, 6.9g/l TA, 13% alc., 2.9 pH) and a Deetlefs Familie Weisser Riesling, off-dry (7.32g/l RS, 6.97g/l TA, 11.5% alc.; 3.07 pH)

Typical aromas and flavours are floral and spice with an elegant fine, soft, fresh lime finish.

The soil is sandy: sandstone, or sand with rocks/stones.

The climate consists of 'cooler days'; that is, 2-6°C cooler, than Stellenbosch; there is less sun in late afternoons and it is quite windy. Average rainfall is 850mm/pa (as an exception, by March 2009 rainfall was already at 970mm)

In their viticulture, they consider canopy management to be very important. Leaves on the west side are removed; then when into veraison even more leaves are removed. The vineyards are situated on flat ground next to a river and were planted in 1983, regrafted 2007. They spaced the rootstock 2.5m * 1m and used Richter110 and R99 and clone WR110F. Ducks are sent into the vineyard to eat snails. Irrigation is used for about 4 months of the year. A wheat crop is planted between vine rows. They find that the vines are susceptible to powdery mildew, mealybug and leaf diseases. The grapes ripen early to mid-season (15-28 February).

Grapes are picked when the taste profile is right, with the acid still good (7.5g/l TA), and before rot can set in. An example of a grape analysis is 7.5-8g/l TA, 3.12-3.3pH, 17.5° to 19°B. They consider Riesling to be an easy fermenter. The final wine analysis is 11.8-12.3 % alc., 18-20g/l RS, 3.06 pH, 6.9-7.2g/l TA.

Cork is used for bottling, as then the wines show better ageing potential.

They would like the public to be better informed about Riesling and will remain with both dry and semi-sweet wines, with good ageing potential.

Buitenverwachting, Constantia: Hermann Kirschbaum, winemaker since 1992

Buitenverwachting was established in 1796 and has produced Riesling since 1985. There are now 2 winemakers, alternating red and white wines every year.

Buitenverwachting is situated in a cool cultivation area; the mean temperature at harvest time is 20.6°C. The humidity is high, mostly from the SE/NW winds. The early morning sun dries the dew off the vineyards. Average rainfall is 1050mm/pa. The soil is Red Hutton, sandstone, broken-down granite along the lower foothills. The vineyards are on south-east facing slopes of 100-300m above sea-level.

Their Rhine Riesling is harvested before the Sauvignon Blanc and is off-dry (7g/l RS) with crisp, flinty, aromas of apples and limes, racy acidity and low alcohol at 10% vol. There are no terpenes and these are not wanted.

Viticulturally, the one vineyard is very near the cellar & demands constant overview to avoid fungal infection; the crop is small with small dense bunches that are hand-picked. Buitenverwachting employs environmentally friendly farming. No irrigation is used and the yield is between 5 and 7.6 tons/ha. In 2009 14 000 litres of Riesling were made.

Kirschbaum says that South African wine drinkers should not be limited to one style of Riesling: it depends on what the consumer enjoys. To achieve the same mouthfeel and taste profile as a German Riesling (eg the Mosel Rieslings typically have 9,9,9 – acid, sugar, alcohol) is difficult. In the past their wines had a higher alcohol, but now Buitenverwachting aims at 7.5-8g/l TA, 5g/l RS and about 10% alc.

A tasting of a variety of Buitenverwachting vintages showed that their Riesling ages well:

The 1985, first vintage, Buitenverwachting Rhine Riesling, No.14319 of 30 000 bottles still showed a golden brown colour, toffee, floral nose; a treacle citrus palate, a very drinkable wine with high acid and high sugars.

The 1989 Rhine Riesling, 12.6% alc., showed a golden hue, straw and terpenes on the nose; citrus, waxiness on the palate, with balanced acidity; a food wine; according to Kirschbaum their best wine ever made.

The 1996 Rhine Riesling, 10.5% alc. (since 1995 lower alcohol wines were produced) was still showing well for its 13 years, but was overshadowed by the other wines.

The 2001 Rhine Riesling, 11.5% alc. showed a shy nose of pears and apples; follow-through to the palate, no terpenes.

The 2007 Rhine Riesling, 11% alc., 8.2g/l RS, 7g/l TA, 153ppm SO₂, 2.9 pH is aromatic, off-dry with citrus and some tropical aromas and flavours.

2008 Rhine Riesling, 10.4% alc., 7.5g/lRS, 8g/l TA, 149ppm SO₂, 3.2 pH. This is an off-dry style. The wine gives the perception of dryness on the finish.

Klein Constantia, Constantia: Adam Mason, winemaker

Klein Constantia was established 1823. There is a total of 146 ha under vines. The estate is well known for its Vin de Constance, a remake of the famous Constantia wine of the 19th century, and is owned by the Jooste family. Old world winemaking philosophy is here supported by new technology.

Klein Constantia has made a dry Rhine Riesling since 1997, and also bottled a once-off Riesling Noble Late Harvest in 2006.

The Klein Constantia vineyards lie mostly on south facing slopes and are situated at higher altitudes, which brings benefit from cooling winds off the Atlantic Ocean. The Riesling vines are on south-east facing slopes at higher altitude and are now being replanted with new vines.

The soil consists of well-drained decomposed granite with a subsoil of clay.

Selective harvesting is employed, with grapes crushed, destemmed and pressed before the juice is settled in stainless steel vats and 500 litre older barrels. The juice is stirred on the lees, with bottling left till the end of the year. Screwcaps are used.

The 1997 Rhine Riesling was a semi-sweet (13g/l RS) wine. Today, wines are mainly dry: For example, the 2007 Riesling has 13% alc., 2.2g/l RS, 6.9g/l TA. The 2006 Noble Late Harvest was made from sun dried and botrytised grapes and the analysis showed 8.4g/l TA, 241g/l RS and 9% alc.

De Wetshof Estate, Robertson, Peter de Wet, the Riesling winemaker and Lesca de Wet, owner

De Wetshof Estate was established in 1949. They have produced a Riesling Noble Late Harvest since 1998. The vineyard has vines of 12-15 years of age and was planted at a density of 4000 vines per ha. De Wetshof has been replacing its Riesling vines with Sauvignon Blanc and Chardonnay.

There are still three blocks of Riesling left. Vintages of Noble Late Harvest were produced in 1998, 2000, 2001 and 2005, as these were years with higher humidity suitable for botrytis. Platter's 2008 gave a 5 star rating to the 2005 Edeloes. De Wet says that the 2009 Riesling is a well balanced wine with good acidity. The wine was not ready to taste yet.

Advantages of the De Wetshof site in Robertson include excellent climatic conditions with dry heat (only 25-20% humidity) and very cold nights. The soil is a mixture of

gravel and limestone with a pH of 8. Water is well retained in the soil, so that plants are not easily subjected to much stress. Use is made of irrigation, with most of the 300mm/yr rainfall falling during winter.

The winemaker's intention is also to produce a drier style Riesling, as the Noble Late Harvests can only be obtained 2-3 times a decade.

During this discussion various suggestions for improvement in Riesling vineyards in South Africa were mentioned:

- Do bunch greening (i.e. remove every third bunch while the other two bunches might be halved) and also remove leaves in the bunch zone.
- Let the vines grow higher, to about 2.3/2.4 metres for better ventilation and cooling and also transpiration.
- The pH of the soil is of utmost importance for Riesling. The pH influences the health of the vine, which then bears healthy fruit.
- Use sprays that allow the bunches to loosen up and reduce risk of botrytis.

Riesling is a very difficult variety to get right, even though the plant is tough and does not need much attention. Nevertheless a close watch, even more so than for Chardonnay, is needed for signs of stress that will require correction.

Jordan Wine Estate, Stellenbosch: Gary Jordan, owner and Robyn Martin, marketing manager

Jordan was established in 1982. Their Riesling vineyard is only 1.9 ha, with just under 7 000 vines, from which two styles of wine are produced. They have produced an off-dry Riesling since 1993. The Mellifera, a Noble Late Harvest has been produced since 2003, nearly annually, depending on the presence of botrytis (132g/l RS for the 2008 Noble Late Harvest) in their vineyard.

Stellenbosch is a warmer region than most other white wine regions and so the wines are riper and fuller. These riper and fuller Rieslings can be aged for 7 to 10 years; not as long as the classic Rheingau or Mosel Riesling wines. The wines when aged acquire a lot of citrus fruit, ripe melon, and also a terpene character.

Jordan's Rieslings, at about 1 500 cases, make up less than 3% of the total production.

The vines in the un-irrigated vineyard are 22 years old and are Geisenheim clone

239. The soil consists of decomposed granite. The vineyard is situated 300m above sea level on cool south facing slopes.

Grapes are picked between 21.5° and 22.5° B, with a low pH of 2.96-3.15, 8g/l TA. Wines when finished have the following analysis: pH 3.15-3.26, 7-7.5g/l TA, 7-9g/l RS and about 13% alc. Jordan uses screwcaps on varietal wines, as wines then tend to age slower and thus provide longer ageing. Cork is used on Noble Late Harvest.

Jordan says Riesling in warmer climates can still claim positive characteristics. Grapes have to be harvested earlier at lower °Balling to prevent obvious petrol notes.

It is definitely worthwhile to continue producing Riesling in South Africa, wine that is expressive of the region where it is made, eg a fuller wine from Stellenbosch and more elegant wine from Constantia and Elgin.

Jack & Knox Winecraft: Pia Pengilly, assistant winemaker and Gerhard Swart, winemaker for Flagstone Winery and Bruce Jack, founder of Flagstone Winery

Frostline Riesling is since 2002 a collaborative venture, between Bruce Jack, who is responsible for the quality of Flagstone, and Graham Knox of Stormhoek.

The Flagstone Winery/Constellation Wines South Africa in Somerset West are working on a Riesling vineyard, situated near the Swartberg Mountain Pass. They have to travel an inconveniently long distance to examine the progress of the grapes, while “frost is a constant threat, during the growing season”. The soil is quartzite, which imparts a minerality or flintiness to the wine. The decision to pick is based on taste and flavour: the grapes are picked with the technical specifications of 22.8° B, a pH 3 and 6.8g/l TA. Wine is bottled under screwcap.

It was mentioned that petrol notes in Riesling should not be a problem if one adapts to local circumstances, for example use regular irrigation to avoid stress in the vineyard. Riesling in South Africa has very good potential. Wine consumers should be led and motivated to explore the unknown, which applies to all styles of Riesling wine.

Their Frostline Riesling 2007, Platter’s rating of 3.5 stars, was not available for tasting.

6.2.4 Recent South African Vintages

The main characteristics of recent years in the wine making region of South Africa, with reference to white wines (*a reference for harvest date and degree Balling for Riesling grapes picked in Stellenbosch is given⁵⁷*), are:

2003: A long and cool vintage; some difficulties with late ripening cultivars; excellent to outstanding quality for white wines in the Constantia area for example. (*14th February at 23° Balling*)

2004: A dry cool winter, an early heat wave in February, rain beginning March delayed the harvest; Stellenbosch had a good average harvest with wine quality ranging from very good to average in white wines. (*10th March at 22.4° Balling*)

2005: Despite severe drought and heavy rainfall the year's harvest produced outstanding wines; High humidity in November and December, together with less southeasterly and other winds, caused Botrytis rot; rains in February; it was a short, early, challenging harvest; yields were lower, but grapes were healthy; there are some good quality white wines. (*25th February at 21.9° Balling*)

2006: Good growing conditions, a smaller harvest with healthy fruit, lower sugars and better acidity across most of the quality wine appellations. It is held that 2006 was "perhaps the best white wine vintage in a decade"⁵⁸. This vintage now enjoys an established reputation. (*8th March at 21.9° Balling*)

2007: Generally impressive wines, despite intense heat, but rain at the right time; elegant structured whites. (*12th March at 21.7° Balling*)

2008: Unusually cool; long and wet conditions required rigorous sorting procedures; ripeness of the grapes was achieved at lower alcohol levels; therefore potentially a great vintage for white wines. (*17th March at 23° Balling*)

2009: SAWIS announced that this vintage is of outstanding quality. Cool weather in December and early January. Widespread bushfires in Paarl and Stellenbosch; some very warm spells, but ripe fruit with good acidity; white wines performed well, have luscious fruit, fuller body, low pHs and delightful acidity⁵⁹.

⁵⁷ Jordan Riesling, produced in Stellenbosch, shows how Riesling was harvested in this area over these vintages; there is no annual Riesling harvest report in South Africa

⁵⁸ Platter's South African Wines 2009, pg.73

⁵⁹ SAWIS 2009 Harvest Report

7. How Riesling wine is made

It is a truism among winemakers that good wine is first made in the vineyard.

Riesling, a late ripening variety, finds its best expression in the cool cultivation zones around 43° to 51° north latitude. As with most grape varieties, critical decisions have to be made on ripeness of grapes, fruit flavours and yeast choice.

Northern Latitudes

In the northern hemisphere typical vegetation periods are from a hundred days after flowering to 120 or even 130 days in very warm vintages (2003 and 2006).

Average temperature in German vineyards during July is 19°C.

Average temperature in Colmar, Southern Alsace, France, in July is 14.3 °C and there is around 1369 average hours of sunshine from April to October⁶⁰.

Southern Latitudes:

Average temperature in South Africa in January: 23°C.

Average temperature in Clare Valley, South Australia: 21.8°C and 1870 average sunshine hours from October to April.

Average temperature in Barossa Ranges, Eden Valley - Springton: 19.3°C, 1764 average sunshine hours from October to April.

Although it is said that Riesling can endure cold climate, it prefers sheltered locations and will also grow well in warmer areas. Whether south facing slopes in the northern hemisphere or north facing slopes in the southern hemisphere, the vine enjoys higher elevations and more barren soil. There is ongoing research into terroir. In some areas, like the Rheingau, this has since the 1960s helped to establish wine laws and quality standards. During recent analytical tests in the Rheingau Riesling vineyards, Prof. Hans Schultz of the Geisenheim Research Institute was able to show that top quality sites would profit from irrigation, to promote terroir, given the increased warming and water shortage in these vineyards. Kloster Eberbach has been running an irrigation project on 2 ha at Rudesheim to evaluate stress and quality levels of the vines and wines.

⁶⁰ *The Wine Industry Varietal Report*, Wine Industry Journal, May/June 2000, Vol.15 No.3, Pg 32

Vineyard management techniques vary: in the Rheingau, foliage is trimmed down before flowering, and at the start of vegetation period. This helps to reduce energy supply to the leaves and provides for skin adaptation to sunshine and a looser berry set. The vine density and trellising systems finally depend on nature of the location. In the Mosel there is an interesting trellis system called steep vineyard single stock training, with a heart formation in the berry zone. Ripening of grapes and picking is easier. In the Rheingau, density is between 3 000 and 4 000 vines per hectare (Georg Breuer). Partly mechanized harvesting and hand selection is typical. In the Mosel the vineyards are densely planted at 11500 vines per ha; therefore only allowing hand-harvesting). Greening in the vineyard depends on rainfall and water supply and the inclination of the slope. Georg Breuer, for example, on steep south facing Rudesheimer slopes prepares green cover for only every second row.

Winemakers in the Rheingau harvest grapes selectively suited to the wine type. Ripe grapes are picked for producing a dry Riesling (Qualität and Kabinett wines are most important) while grape bunches affected by botrytis are removed. Sometimes up to 8 selective pickings by hand are performed. Fully ripe grapes, that perhaps include a small proportion of healthy botrytis, are used for Erstes Gewächs and even Spätlese trocken.

Overripe grapes with advanced botrytis are used for Spätlese and Auslese wines, with typical noble late aromas and flavours and, often experienced in the Rheingau, a surprising touch of acidity. Dried, shriveled grapes, affected by botrytis, such as in the vintages of 2003, 2005 to 2007 are used to make excellent Beerenauslese and Trockenbeerenauslese.

Most wine growing estates in the Rheingau use traditional vinification methods, yet also integrating the latest technology to produce exceptional quality. Ripe grapes are lightly crushed, then pressed as whole cluster pressing. Often there is a maceration period of about 12 hours in the press before pressing begins. This allows more aromas to develop and helps reduce the acidity in a natural manner. Wines are then pumped off the sediment into stainless steel containers or old wood. Wild or cultured yeasts, such as SIHA 7, are used to start the fermentation.

The standard fermentation temperature for Riesling in Germany lies between 15° and 18°C. In Germany stainless steel tanks often have a cooling/warming facility. The use of either stainless steel tanks or wooden oak vats, easily up to 40 years old, depends on the individual winemaker. Wooden vats are often used to mature wine, since the oxygen transition helps to speed up clarification, stabilization and contributes to more

complex aromas. These wooden vats are mostly located in cool damp cellars. No new oak is used in Germany, as the tannins would overpower the elegance and freshness of the fine aromas and flavours of Riesling wines.

Fermentation can take 4 to 5 weeks, but sometimes as long as a few months. While the wine is often separated from the lees, some winemakers leave the fine lees in the wine, as in the 8-9 months post-fermentation that is done at Schloss Schoenborn, Rheingau⁶¹. After separation, the wine is stored in stainless steel or old wooden vats for 5 to 9 months (Georg Breuer). Many winemakers only do a final filtration just before bottling, and only bottle their wines as and when needed for delivery.

German winemakers prepare their technical tasting notes, but this has never been important for the consumer. It is here where one learns about acidity in Riesling. Rieslings from cool areas always show an exciting balance of acidity to fruity sweetness, yet there is no norm. Especially in recent years the taste balance in Kabinett wines has shown that quality is not a question of analysis and must weight, but rather a sensory balance. It is the “geschmacklich trocken” , ie tasting dry and often with “dry” on the lable, that is marketed on the one side and on the other side the Prädikatsweine, often as “fein-herb”, which is medium dry, followed by sweeter Spätlese, Auslese, Trockenbeerenauslese and Eiswein. The International Riesling Foundation, IRF, presents their view of Riesling in the *Appendix 15.13 IRF Tasting Profile, pg 99*.

As examples of excellently balanced wines in their respective categories, there are sensational wines such as the 2007 Schloss Johannisberg Grünlack Spätlese trocken with 7.3 g/l RS and 6.5g/l TA, or the 2007 Georg Breuer Berg Rottland Goldkapsel Auslese with 163g/l RS and 9.9g/l TA. It must be said however that Schloss Johannisberg will not produce Spätlese trocken again. This is because the VDP encourages that all Prädikat wines should show certain levels of sweetness, and should not be made dry.

⁶¹ *A Word about 'Minerality' in Riesling*, Industry Conference, Vineyard & Winery Management, September/October 2007.

8. What makes Riesling unique (minerality, sweetness, acid, terpenes)

The perspective, of course, has to be from the view of the consumer.

Balance in the wine is essential. In Riesling this is a tension between sweetness and acidity, purity and length of flavour and the texture and flavour profile. Balance requires that physiological ripeness is reached in the grapes, as defined by thin skins, a soft juicy grape, brown pips easy to separate from the flesh, grapes easy to press. The acidity should not be grassy, but balanced, enhanced by good aroma / extract. All these factors need to combine to portray a true terroir wine, displaying its origin.

A good wine should go well with food. Many experts consider Riesling to be the top wine for pairing with a great variety of foods, from fresh fruit to sushi and pork chops⁶².

*Minerality*⁶³ is for some consumers a preferred quality in Riesling: Experts, academics, winemakers and Masters of Wine have different views on what minerality is and how it comes into the wine. Professor Maltman says “when we taste ‘minerals’ in, say, bottled waters it is the soluble ions we sense...these ions have been dissolved out of the host rock”⁶⁴, and thus, if the water has come from the ground, there is a connection.

Bob Betz⁶³, MW, has explained to Master of wine students that there is no empirical evidence that minerals can be extracted from the soil by vine root and transmitted and then detected discretely by the human palate. Nevertheless we can taste the difference between a Riesling grown on slate, making it more mineral, from a Riesling grown on loam and clay, which is rich and fruity⁶⁵. Dr. E. Loosen goes as far as showing the differences in his wines that are grown on grey, blue and red slate.

Alsace winegrowers agree that no matter what the type of soil, barren soils tend to accentuate the perception of minerality. Some American winegrowers believe that minerality comes from the palate, as in low pH, high acidity and lees contact. Some

⁶² www.ehow.com, <http://wine.about.com>, www.wineloverspage.com

⁶³ *A Word about ‘Minerality’ in Riesling*, Industry Conference, Vineyard & Winery Management, September/October 2007.

⁶⁴ *Wine, Beer and Whiskey: the role of Geology*, Professor Alex Maltman, Institute of Geography and Earth Science, University of Wales, 2003 and *Riesling Renaissance*, Freddy Price, 2004

⁶⁵ *Riesling Renaissance*, Freddy Price, 2004, pg.13 and pg. 51

German winemakers agree that wine left on the lees, for as long as 8-9 months, improves mouthfeel and balances the high acidity and high (13%) alcohol. Mouthfeel refers to the smoothness and texture, the tactile sensation of the oral cavity.

Hugh Johnson says in his “Der kleine Johnson 2008”, in the chapter on Germany, that the citizens of a country often drink their wines differently, in Germany drier, more steely, dusty to what is being exported. This also applies to Riesling. Dr. Loosen produces riper, fuller wines for export, while his German clientele enjoys the drier wines. Schloss Johannisberg does the same. Johnson refers to “this steeliness, the modern German style is for a British palate like a cold shower and a cross country run in the rain: marvelous, but really no fun”⁶⁶.

The perception of sweetness: In Germany and Austria, Oechsle⁶⁷, the measurement for grape sugar in the grape, is still a sign of quality, as it is connected to the ripeness of the grapes and hence its potential alcohol content. The degrees Oechsle is important per region and is used to define the level of quality (Qualitätswein or Prädikatswein including Kabinett, Spätlese, Auslese, Beerenauslese, Trockenbeerenauslese). In South Africa many drinkers have a perception that Riesling is sweet, even when confronted with a dry one. It has a sweet flavour as Nick Bulleid⁶⁸ says, which is probably a reflection of Riesling’s strong “grapey” primary fruit. It is not so much a question of sweetness, but more of lower alcohol and, in the finish, a welcome “süßes schwänzle” (translation: a touch of sweetness in the finish), as Günter Brözel would have said.

Labels and perceptions: The International Riesling Foundation (IRF⁶⁹) founded in November 2007 and made up of some 40 Riesling producers and trade representatives from all over the world, met on 31. January 2008 at Chateau Ste. Michelle, Seattle, Washington State, USA.

The aim of this organization is to educate consumers about Riesling, to correct misperceptions and to encourage testing of different styles of Riesling. Also under discussion are consumer attitudes and the development of a standardized taste scale, to make it simpler for the consumer to predict the taste (See Appendix 15.13 *IRF Tasting Profile, pg 99*). They believe that a consumer may be disappointed with the wine when expecting a certain level of sweetness or dryness that is not realised.

⁶⁶ *Der kleine Johnson 2008*, Hugh Johnson, Hallwag, pg 183 (translated by the author)

⁶⁷ Appendix 15.8 *Sugar or Sweetness (incl. SA and German data)*, pg 94 and Appendix 15.1 *Riesling profile*, pg 83

⁶⁸ *Riesling renaissance continues*, Nick Bullied, Wine Industry Journal, March-April 2004

⁶⁹ www.drinkriesling.com

A poll in the fastest growing Riesling market, the USA, revealed that 45% of knowledgeable wine consumers there were only aware of “Riesling being one of the sweetest wines they had experienced”. Only 28% knew that Riesling was available in a variety of styles⁷⁰. A great Riesling is therefore when a customer understands what he is buying in the bottle and his preference is satisfied. A Riesling taste profile on the label on the bottle will then help to determine the level of sweetness.

The level of alcohol in the wine can indicate sweetness as well: if it is 8.5% alcohol, the wine is not going to be dry. On the other hand, a Spätlese at 13% alcohol per volume, would be more-or-less dry.

Acid is an indispensable condition for a good Riesling: The most important organic acid is tartaric acid, which is the acid in Riesling grapes that presents a counterbalance to high residual sugar. To a somewhat lesser extent malic acid is also important. The more immature the wine, the greater the proportion of malic acid. In addition, small quantities of lactic, citric, succinic, acetic and carbonic acids are present. In the case of botrytised Rieslings, a white precipitate on the underside of the cork indicates the presence of gluconic acid, produced by the botrytis fungus.

Essentially, organic acids retard the growth of harmful bacteria and maintain the microbiological stability of the wine.

Any discussion pro or anti Riesling should centre around its acidity, which represents the essential characteristic of this cultivar. During the maturation process a natural acid reduction occurs in the grapes; similarly, acid is reduced during skin contact/maceration, allowing for the possibility of (bio)-chemical de-acidification. For this purpose, malolactic fermentation is the customary and internationally proven method, but it is not used much in the production of Riesling wines.

One of the big differences between Riesling and other wines is the acid content. But acid is not foreign to the human stomach, which, itself, produces hydrochloric acid⁷¹. This acid assists the stomach to prepare ingested foods for absorption into the circulation. It is only in instances of over-indulgence that an over-acidification may ensue. It is therefore advisable to follow the general rule of drinking the same volume of water as that of wine.

Terpenes: Research has shown that terpenes in a wine can be influenced in a number of ways, one of which is the selection of clones: Dr. Ernst Rühl refers to a

⁷⁰ *Consumer research leads to Riesling Taste Profile*, PW, November/December 2008

⁷¹ Fischer, Christina, and Ingo Swoboda. *Riesling, The full diversity of the world's noblest vine*. Hallwag, 2007

study by the Geisenheim Research Institute⁷², where the conclusion clearly shows that “clones differ significantly in terpene and some other flavour compounds (C6), providing the option of clonal selection on the basis of aroma compounds”. In addition, a number of viticultural and vinicultural regimes will help to control excessive levels of terpenes in the final wine. Some of these are mentioned below.

Riesling’s varietal aroma is determined by a number of different terpenes. The primary terpenes, which are actually terpenoid alcohols, are linalool, alpha-terpineol, citronellol, nerol, geraniol and hotrienol⁷³. The so-called petrol aroma has been identified as TDN (trimethyldihydronaphthalene).

TDN, also described as a C13 norisoprenoid, is higher in Riesling than in any other grape, where it occurs at a very low level of perception. Today it is known what conditions promote high TDN, especially in Riesling. These are:

low nitrogen levels in the soil,

low yields,

warm weather (particularly during the growth period),

increased fruit exposure to the sun,

water stress

and high acids in the fruit or the wines.

One would therefore expect that TDN levels are naturally higher in warmer countries, like Australia and South Africa, than in Europe or Tasmania. It also explains why a drought year, such as 2003, in parts of Europe, promotes these petrolly aromas. In the end, it is the consumer who will decide if a little dose of terpene laden fruit balanced with acid can still deliver a delicious wine. For example, in Australia Pewsey Vale’s flagship Riesling is kept for five years before being released, and is well-known for its petrol aromas.

⁷² *Aroma Levels of different White Riesling clones*, Dr. Ernst Ruehl, Study 04HS21, by Miriam Hey, Katja Fehres, Bettina Schumann, Ernst Ruehl. Forschungsinstitut Geisenheim

⁷³ *A Petrol Crisis: trying to understand Riesling*, 09/08, Tom Stevenson, www.winepages.com

9. Performance of SA Riesling in recent wine competitions⁷⁴

Old Mutual Trophy Wine Show 2008:

1. Trophy for Best unfortified Dessert Wine: Delheim Edelspatz (100% Riesling)
2. Gold Medal: Nederburg Private Bin S316 Weisser Riesling NLH 2004
3. Bronze Medal: Hartenberg W.Riesling 06; Villiera R.Riesling 06, K.Constantia R.Riesling '07

Veritas 2008:

1. Category Weisser Riesling/Rhine Riesling (no wood)

Silver Medal: Hartenberg W. Riesling (semi sweet) 2006

Bronze Medal: Hartenberg W. Riesling (semi sweet) 2007, K. Constantia R Riesling 07; Nederburg Winemasters Reserve R. Riesling (off-dry) 08; Villiera R Riesling (off-dry) 06

2. Category Noble Late Harvest, unwooded

Gold Medal: Fleur du Cap NLH (Riesling) 2007

Silver Medal: Delheim Edelspatz NLH (Riesling) 2007

Fleur du Cape NLH Riesling 2008

K. Contantia R Riesling NLH 2006

3. Category N LH, wooded:

Silver Medal: Neethlingshof Lord Neethling W. Riesling NLH 2007

⁷⁴ The list does not include the South African Riesling winners at foreign wine shows like *Canberra International Riesling Challenge* and *International Wine Competition*.

Michaelangelo 2008

Grand'Or Winner/ Double Gold Medal: Neethlingshof Lord Neethling W.
Riesling NLH 2007

Silver Medal: Fleur du Cap NLH 2007

Old Mutual Trophy Show 2009

Brian Croser, the Show's Australian judge, commented that Riesling should be included in the line-up list of the Best (the tiny three-wine Riesling class was also close to getting a gold)⁷⁵

Silver medal: Nederburg The Winemaster's Reserve Rhine Riesling 2008

The other three wineries in the line-up all scored Bronze.

The results per category of the recent **Just Riesling wine tasting competition February 2009**, at the "Under the Influence of Riesling Festival", is in the following chapter.

Best Value Wine magazine's 2009 guide

SA wines under R60,-

1. Best value niche varieties:

Rietvallei Rhine Riesling 2008 at cellar price R 33 (off-dry)

⁷⁵ http://www.grape.org.za/users/angela_lloyd/blog/2009-05-10-trophy_wine_show_and_other_busyness.html

10. Under the Influence of Riesling Festival

*The Just Riesling Association*⁷⁶ was formed by the majority of the Riesling producers in South Africa to further the interest of the noble Riesling variety.

The committee consists of Lowell Jooste (Klein Constantia), Paddy Bomford (Hartenberg), Bruce Jack (Flagstone and Constellation), Paul Cluver (Paul Cluver Wines) and Gary Jordan (Jordan Wines).

They have set themselves the following goals: “ensuring a bright future for Riesling in South Africa” by creating awareness amongst the public, by creating a Riesling panel, and a Riesling top 10 competition, as well as helping to support the research into Riesling plant material (for viti- and vinicultural reasons) in South Africa.

The Just Riesling website has a list of functions, recent Riesling articles, definitions from WOSA, lists importers of Riesling to South Africa and lists the South African producers (mentioning Thelema, Hartenberg, De Wetshof, Jack & Knox, Paul Cluver, Klein Constantia). There is also a summary of a technical meeting with the SA Riesling producers in 2008. This shows that research and experience in growing Riesling is on its way to a more respected platform.

The festival *Under the Influence of Riesling* was the brainchild of Jörg Pfützner, a German trained sommelier who previously worked at Cape Town’s Aubergine restaurant. Pfützner staged this festival (which included workshops⁷⁷, dinners, food and wine pairing exhibitions and picnics) for the renaissance of Riesling. It launched in Johannesburg at the Hyatt Hotel on 19. February 2009 then moved to Cape Town for the 20/21. February 2009. A number of renowned international winemakers participated: Dr. Ernst Loosen, Egon Müller, Philipp Wittmann, Willi Bründlmayer and Hermann Dönnhoff, Dirk Niepoort. These six foreign winemakers were joined by six local wine judges at Cellars Hohenort Hotel, for a competition⁷⁸ of the Cape’s best Rieslings.

There were only 26 wines to judge, in three categories: DRY (under 10 grams per litre of residual sugar), OFF-DRY (between 11 and 30g/ l RS), and SWEET (above

⁷⁶ www.justriesling.co.za

⁷⁷ Appendix 15.10 *Under the Influence of Riesling: Tasting in Johannesburg*, pg 96

⁷⁸ *Just Riesling holds inaugural Riesling Competition*, Just Riesling, Media release, 24 February 2009

30g/ ℓ RS) - all of which were in the botrytised Noble Late Harvest style. Most were from recent vintages (2005-2008) but there were a few older ones in the sweet class. The first three places overall were taken by sweet wines, headed by the Paul Cluver Weisser Riesling Noble Late Harvest 2008, and followed by 2 vintages of De Wetshof Edeloes - the 1991 and the 1998 – in 2nd and 3rd place respectively.

In detail the Category Winners were:

DRY <10g/ℓ residual sugar:

1. Paul Cluver Weisser Riesling 2008
2. Thelema Sutherland Riesling 2008
3. Villiera Woolworths Riesling 2007

OFF-DRY 11 - 30g/ ℓ residual sugar:

1. Jordan Riesling 2006
2. Thelema Rhine Riesling 2007
3. Deetlefs Weisser Riesling 2008

SWEET >31g / ℓ residual sugar:

1. Paul Cluver NLH 2008
2. De Wetshof Edeloes 1991
3. De Wetshof Edeloes 1998

Another part of this Riesling concept is Pfützner's *Riesling Club* for Riesling collectors, lovers and freaks, who purchase wines directly from producers in Germany on a bi-annual basis. Members pre-order the current vintages available at the German wineries and Pfützner prepares the import. The current list contains wines from Vollenweider, Dr.Loosen, Joh.Jos.Prüm, Selbach Oster, Willi Schäfer, Fritz Haag, Clemens Busch (all from the Mosel), Zilliken, Egon Müller Scharzhofberg, Van Volxem (all from the Saar), Dönhoff (Nahe), Georg Breuer (Rheingau), Wittmann (Reinhessen) Oekonomierat Rebholz, JL Wolf, Weingut A. Christmann (all from the Pfalz), Weingut Willi Bründlmayer (from Kamptal-Langenlois, Austria). Although Riesling does remain fairly underpriced (compared to other whites like Chardonnay), the really good wines are definitely not cheap, yest South African wine drinkers are happy to pay for these wines.

11. Comparison of the Rheingau and South Africa

Factors affecting Taste and Quality of RIESLING	SOUTH AFRICA
	<p>In South Africa, Riesling only covers 0.2% of total vineyard area between 27° and 34° latitude South</p>
Location:	<p>Constantia, Elgin, Groenekloof / Darling, Stellenbosch, Robertson, Paarl, Breedekloof, Walker Bay. The wine growing region is bordered by the sea on two sides, the Atlantic and the Indian Oceans.</p>
Climate:	<p>The two oceans combine maritime influences (regular fog, cooling sea breezes) with moderate Mediterranean climate. Riesling grows in Winkler regions II (cool Elgin) to V (warm/hot Robertson and Swartland). The summer sun rises late and sets early, behind the mountain peaks in the prime producing vineyards, casting long shadows ie. maximum 10 hours of sunlight in mid-summer. Rainfall between May and October; moderating south easterly winds in spring/summer mm of rain p/a: 750mm in Stellenbosch area</p>
Aspect:	<p>Steeper slopes and valley floors, depending on regions Mostly eastern, south-eastern slopes: Mountains often shield the summer sun, which rises late, and sets early</p>
Soil:	<p>Red granite, sandstone, shale</p>
Viticulture & Viniculture:	<p>Drip-irrigation, only when vines are heat-stressed: some harvest at night; re-integration of local vegetation among established vineyards. Re-grafting, and new clones are being used; reduction of yields; partly mechanised, partly hand-picked harvest Modern white wine-making technology eg temperature controlled, stainless steel tanks</p>
Producers:	<p>In 1994: 67 producers, in 2000: 28 producers, in 2009: about 15 producers Produce all styles of Riesling at very affordable prices</p>

Factors affecting Taste and Quality of RIESLING		RHEINGAU
	Total: around 3200 hectares of vineyard area, of which 80% is Riesling; Vineyards are around 50° latitude north	
Location:	<p>The Rhine has its source in the Swiss Alps, it travels from east to west in the Rheingau; around Lorch the river valley is narrow.</p> <p>Rheingau is the compact region on the right bank of Rhine and Main</p> <p>The region stretches from Wicker, Flörsheim, Hochheim in the east, to Lorchhausen in the west.</p> <p>Significant aristocratic especially clerical properties, eg. Kloster Eberbach, Schloss Johannisberg</p> <p>Wine industry in Rheingau has historical value: discovery of Spätlese.</p>	
Climate:	<p>The Rheingau is protected from the cold northern winds by the northern forests of the Taunus</p> <p>River reflects the sunrays back into the vineyards, stabilising humidity and extreme temperature ranges</p> <p>Summers 4:30 am sunrise and 22:15 H sunset</p> <p>Many micro climates; little hail and frost</p> <p>Research shows per 100 m height an increase of 1° C</p> <p>Medium temperature p/a: 9.9 ° C; medium temperature during “vegetation” time: 14.7 ° C</p> <p>Hours of sunshine p/a: 16043; mm of rain p/a: 536</p>	
Aspect:	<p>Geisenheim is known for the least rainfall in the whole of Germany.</p> <p>Most slopes are south facing and receive sunshine throughout the day;</p> <p>Hochheim at around 80 to 120 m above sea level</p>	
Soil:	<p>South and south-west facing slopes; geological origin is the Mainzer Basin, a Tertiary sea;</p> <p>Heterogeneous soils: Hochheim shows chalky, clay, marl soils. Rüdesheim and the higher slopes of Kiedrich and Rauenthal show quartz and decomposed, weathered slate, phyllite</p> <p>Lower vineyards show pebbly, gravelly soils, sandstone as well as loamy to clay soils, with marl and loess</p>	
Viticulture & Viniculture:	<p>Harvest mostly beginning October; long ripening period concentrates the aromas and extracts (mostly apples and peaches);</p> <p>Often classified as vibrant acidity and elegance</p> <p>Since 1999 officially classified regions/vineyards were named Erstes Gewächs, around 1100ha are classified terroir (climate, soil and continuity)</p> <p>Harvest between 15 September and 10 October</p> <p>Can only be marketed from 1 September following the harvest year</p> <p>Cool fermentation (stainless steel or in old oak), sometimes malo-lactic in young wines</p> <p>80% Riesling, 9% Pinot Noir, 11% Müller Thurgau, Ehrenfelser, others</p>	

The above comparison of factors of each country that affect taste and quality show that:

1. The variety Riesling is one of the least demanding cultivars. It can grow easily in 50° latitude extreme north, as well as in 35° latitude south. However, Riesling has a preference for warmer southern, or south-eastern slopes in the northern hemisphere, and in the warmer southern hemisphere it prefers the cooler south, south-eastern and south-western slopes, at some altitude. If sites are cool, it means that a long growing season is possible to obtain well-balanced, but richer wines. This is best seen in South Africa and California, with their medium dry wines. Australia has also shown that one can produce dry delicate and lively wines from its cooler sites (Pewsey Vale, higher lying vineyards in Barossa Valley), although most Riesling is grown in the south, producing tart wines with fruity yet tangy citric, limey flavours.

2. Riesling adapts easily to the conditions in which it is grown: site (see above), soil, climate (incl. day degrees to ripeness; weather). Riesling can grow in a *variety of soils* (from shallow topsoil on rock, or deep loam, or sand, clay, or slate). In some regions where the soil tends to be poor, the vine struggles, but brings forth more finesse and intensity of flavour than in richer soils. Some wine experts, especially in Germany, state that soil can communicate aromas and flavors ie.

Red clay soils and limestone produce floral, ripe wines

Slate, and subsoil rock, as well as varied schist, sand, loams, and ironstone produce steely, mineral wines, with a vibrancy on the palate

Blue slate, in the northern Riesling growing areas (Mosel, lower Rheingau) produce Rieslings with delicate acidity, a green apple note, and an accompanying mineral note.

Primitive - rock soils, like "gneiss and granite" produce quince aromas, slightly smoky aromas (which decompose in 1-2 yrs) showing weighty, complex Rieslings.

Loess-loam soils with water retention capacity, produce vigorous, enduring Rieslings with fine citrus-like (eg. grapefruit) aromas.

Riesling preserves its identity wherever it is grown⁷⁹, although it behaves differently in *different climates*: In Germany Riesling is a late budder, late ripener and a

⁷⁹ Robinson, Jancis. *Vines, Grapes and Wine. The first complete guide to grapes*. Random House Inc, 1986

generous yielder; in California, leafing is early, ripening is mid season, and yields are only average; in South Africa, Riesling is an early ripener, with low yields. The Australians even say that it is not the daytime temperatures that are important⁸⁰ but the extreme cool nights that make the difference. This helps to preserve cooler aromas and flavours, also complexity, over a long ripening period.

Generally this means that the warmer the climate, the faster the aromas and flavours of ripe luscious apricots and peaches develop, but also the unpleasant ones of kerosene.

Wine made in New World countries ages more rapidly (Jancis Robinson's Wine Tasting workbook, pg.117) and "generally the warmer the climate the faster the kerosene develops". Riesling is a very hardy vine and even botrytis cinerea are no distraction for the Riesling vine. Historically botrytis occurred rarely in German vineyards, although in recent years it has occurred more often⁸¹. The year 2003, in Germany, was marked by extreme heat and dehydration which concentrated the grape sugars enough to achieve high levels of ripeness without botrytis. High levels of ripeness without botrytis is actually more typical for warmer, drier countries.

The Canberra International Riesling Challenge 2008⁸² has shown that the southern hemisphere, particularly Australia, is producing more dry style wines while in the northern hemisphere the very sweet styles are dominating.

Must weight cannot be as prominent a quality factor as some believe: various New Zealand Rieslings at lower weights have also shown delicacy and good character. In fact, the German Law accepts lower must weights for Riesling (eg. at 70° Oechsle for the Mosel region qualifies Riesling as a Kabinett).

Viticulture and Viniculture clearly involves a lot of decision-making. Winemakers in the northern and southern hemisphere can decide to produce different styles of Riesling wines from the same vineyard. The German Riesling may be the "true" style of Riesling, but the variety retains its identity in different styles of wines, across the world.

It is worthwhile for South African winemakers, not only to look at Germany but also to look at Australia and New Zealand. These two southern hemisphere countries have developed a reputation for good Riesling wines outside Germany, and offer opportunities to learn from countries with similar conditions.

⁸⁰ *Rieslings to be cheerful*, pg 62, Decanter, November 2008

⁸¹ see *Recent Vintages in the Rheingau*, pg 44

⁸² www.rieslingchallenge.com

Matthew Pick at Leo Buring, an Australian brand dedicated almost solely to Riesling, says that winemakers have to work more closely with vineyard managers. They have agreed to lengthen the wires to lift the vines a wire higher; do spur pruning, rather than cane pruning, for more consistent ripening; some reduce their yields drastically. Vineyard managers have agreed to avoid extreme stress by mulching and better use of water, as this has dramatic consequences for the fruit quality.

Viniculture in Australia has shown that refrigeration and temperature controlled winemaking is very important. Many winemakers use insulated tanks and make use of yeasts with lower nutrient requirements, keeping the fermentation temperature below 14°C. Some Australian winemakers reduce skin contact, and others barrel-ferment in old oak when they harvest very ripe Riesling, to increase fatness and texture, without picking up oak.

Finally, it is important to mention an example of just how important vineyard management and winemaking is, and what potential there is in creating a variety of wine styles. Here is an example of Jeff Sinnott at Amisfield, in Central Otago, New Zealand⁸³, who made two different styles of Riesling from the same vineyard:

1). Grapes were harvested from exposed bunches. The juice was hyperoxidised by bubbling oxygen through it, skimming the precipitated phenolics from the surface. The clear juice was then fermented conventionally and bottled dry. The wine is complex, less aromatic, has a soft palate texture, no grip, some caramel. The wine betrays the methods used to make it.

2). Grapes were harvested from shaded bunches. The grapes were processed in a protective, reductive way and the wine was bottled with a low level of residual sugar. This wine shows characteristic Riesling aroma, a more angular palate, a hint of sweetness and a light tannic grip.

South African winemakers are using more time on Riesling and are experimenting. For example Jeff Grier suggests picking earlier, allowing a shorter malolactic fermentation, and lowering sulphur levels. As Fridjhon⁸⁴ recently wrote in his article “If you care enough about Riesling to retain vineyards and continue making the wine when it is out of fashion, you’re not going to be sloppy about wine quality.”

⁸³ Wine Industry Journal, March-April 2004, Vol.19, no.2, *Riesling renaissance continues*, Nick Bullied

⁸⁴ *The Rebirth of Riesling and its rightful position*, 31. January 2009, www.grape.org.za

12. Conclusion

Riesling is an aromatic variety, with specific recognizable characteristics. It has a highly regarded reputation all over the world with a respectable long history. It dominates wine growing in some smaller regions in the world and is a niche wine in most others. It transverses boundaries of wealth/poverty and language. It has a quiet following, and is not as cyclical in the public love-hate reputation as Sauvignon Blanc and Chardonnay.

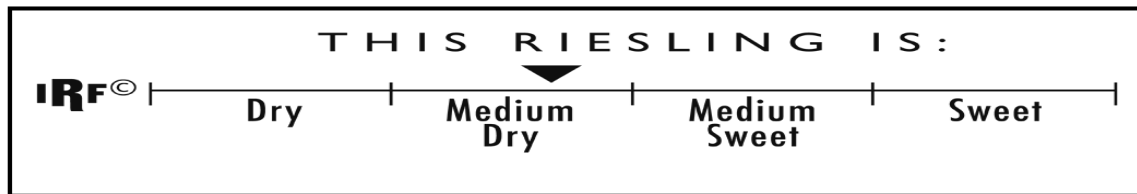
Valuable lessons can be learnt from developments in viticulture in the Rheingau and also from some of the developments in Australia and New Zealand. South African producers should study what has been done elsewhere and not try to re-invent the wheel.

Rheingau Riesling has shown there are many characteristics that Riesling picks up through the soil, which makes it unique for its terroir. The maps and research in the Rheingau present a guideline of factors to the viticulturist and winemaker for establishing and maintaining Riesling vineyards.

Riesling, being such a forgiving variety, presents opportunities in many areas in South Africa. Viticulturally it needs attention, but no more than other white varieties. With renewed interest in Riesling, there are today vineyards which have been re-grafted and planted with new clones. South African winemakers are spending more time on Riesling and are experimenting. It is not just the winemaking technique that is important, but how to bring the best features of the terroir available into the wine.

Wineries should ideally stay with one style of Riesling until they have perfected its making and ensure the label presents concise information about its particular style to educate the consumer. The Just Riesling Association will help to further the Riesling knowledge base in South African wineries. Public awareness is already being promoted by specific tastings of Riesling wines. Wineries can expand their markets by promoting Riesling in new categories, maybe region or vineyard specific and also by providing interesting information on the labels. The IRF offers information and help in this respect.

The IRF proposes a description of the taste profile of the Riesling wine. This scale can be downloaded and used on the label of the bottle. It is the winemaker's subjective decision to place the arrow/triangle on the scale.



The varietal Weisser Riesling, already established in South Africa, has the opportunity to play a special role in the consumer market: It presents a good alternative to other white varietals, as it can satisfy Sauvignon Blanc drinkers with good acid and freshness, and also the Chardonnay drinkers with fruitiness like lemon, lime, and citrus with some complexity, but alas no wood. People who have only started drinking wine will enjoy a touch of sweetness and forthcoming fruit, while wine enthusiasts, on a journey of discovery, will find honeyed, kerosene notes in an aged Riesling as well as a welcome relief from high alcohol, unless the wines are sweet.

Finally, the recommendations to produce a good Riesling are:

- Specific choice of site; higher regions and lighter soils are preferred.
- Rootstock Richter 99 or 110, and clones WR110 A or F or WR239 Z or AG are available in South Africa and produce good wines; note that older vines may be from different clones. Geisenheim Research Institute provides information on new clones for different terroirs.
- Climate; ideal is a medium to cool climate with warm summer days, cool nights and low rainfall in order to achieve long vegetation periods. Humidity, more likely in lower lying areas, helps with the development of botrytis, if producing sweeter wines.
- Trellising must be used to balance vitality/ventilation: recommendations to trellis higher in warmer areas were made.
- Suitable procedures for fertilisation of soil and general greening and mulching must be used

- Sufficient water and nutrients are necessary for development of elegant wines: supplementary irrigation for a part of the season may be necessary in warmer regions to avoid stress for the vine.
- Improved management practices like windbreaks, deep ripping, artificial drainage and pruning that are more suitable to Riesling have to be considered.
- Viticulture should be designed for relatively low yields, canopy management with attention to leaf/bunch ratio and tipping/half-bunch removal or bunch thinning might be required.
- Harvest should be as late as possible, with attention to healthy grapes, physiological ripeness and balanced acidity. Selective picking and sorting tables help to improve the quality of grapes going into the wine.
- Winemakers should use the latest technologies and products, eg airbag presses, minimum skin contact, or no skin contact and also the use of strong fermenters and yeasts to help break down terpenes and improve mouthfeel.

As Günter Brözel said "It is not a question of Eureka. South Africa produces Riesling wines of 2010 already but its production rejuvenation is more than essential and necessary, as would be the appreciation of Riesling, including knowledgeable judgmental levels. This variety is of the highest nobility and does not need any 'forest' intervention. We invite you all to expand, experiment with this royal member of the noble family, also known as the 'gentil aromatique', which like the name says, needs nurturing right through from vine to wine ".

13. Limitations of this research

This dissertation has focused on bringing back information from the Rheingau, a region full of history, geology, geography, academic research. It would be impossible to look at everything, therefore this is an overview into the reality of the vine/wine (by visiting the wineries) and a summary, of the information, that was available.

It was clear, that the priority of one whole region, and its “raison d’etre”, was definitely of much lesser importance to many South African wineries. Nevertheless, for this cultivar there is an experimental urge for trying new regions and methods to produce balanced wines.

This dissertation has not looked at the marketing side of Riesling, nor the wholesaler and retailer perspective in either country.

It has also not been a long term research, but rather a synopsis of what two regions were doing for Riesling in 2009.

Awards, competitions and classifications are all structures to help market wines, and praise those that deliver quality. They do not deliver a full picture of the wine industry on Riesling, and also do not mean that this is all that is worthwhile looking at. Again, it is intended to give an insight of what the winemaker/winery is presenting and what the consumer is buying.

Suggestions for the future:

1. Use the Riesling research from the Rheingau as a professional platform to exchange information and experience on Riesling viticulture and winemaking
2. Expand the research to the southern hemisphere, for example Australia and New Zealand
3. Develop a marketing concept to sell more Riesling wine, locally and overseas.

14. Abbreviations and Explanations

g/l = grams per litre

RS = Residual sugar (this is how far the winemaker lets the fermentation go, balanced against the acidity, and is usually measured in grams per litre)

TA = Titratable/Total acidity

BA= Beerenauslese and

TBA= Trockenbeerenauslese

ha = hectares (1 acre = 0.404 ha)

hl/ha = hectoliters per hectare

% alc = percentage of volume alcohol

B= Balling = degrees of Balling (sugar ripeness in grape)

pH = is a measure of the acidity or alkalinity of a solution.

S Blanc = Sauvignon Blanc

eg or Eg. = for example

ie =which is to say, in other words, that is

°C = degrees Celsius (temperature)

pa = per annum, yearly

SO₂ = Sulphur dioxide expressed in parts per million

Oechsle = Oe = measure of the initial ripeness of the grapes; scale to measure by how many grams per litre the specific gravity of the must exceeds that of water; for example: 1 litre of must weighs 1100 grams ie. the must weight is 100° Oechsle, since the 1 litre of water is exactly equal to 1000 grams. eg. must with 78° Oechsle therefore weighs 1078 grams. The regulations set out **minimum** Oechsle readings for each Prädikat in the Rheingau, Kabinett - 73°Oe, Spätlese - 85 °Oe, Auslese - 95° Oe, Beerenauslese and Eiswein - 125° Oe; Trockenbeerenauslese - 150 °Oe

max = maximum

incl. = including

ppb = parts per billion

Platter's = Platter's South African Wines, the guide to cellars, vineyards, winemakers, restaurants and accommodation

off-dry = here often used for the semi-dry (sometimes even for the semi-sweet category) from SAWIS labeling requirements (refer to South Africa). Please be aware that the sugar levels are different in the German context (refer to German Law Appendix)

German wine styles for Riesling:

Qualitätswein bestimmter Anbaugebiete (QbA) – wines from one of 13 German growing areas. Chaptalization is allowed.

Qualitätswein mit Prädikat (QmP) - also called Prädikatswein including several styles, from Kabinett to Trockenbeerenauslese. Chaptalization is not allowed.

Kabinett – lowest in sugar among the QmP wines and lighter in style.

Spätlese – harvested late, richer in taste, and higher in sugar than the regular harvest.

Auslese – made from very late-picked bunches, normally sweet and rich in flavor.

Kabinett, Spätlese, Auslese can also be dry.

Beerenauslese – individual berries picked from bunches very late in the harvest with high sugar, may have the “noble” Botrytis mold.

Eiswein – made from grapes left on the vine until they freeze with very concentrated sugar, not necessarily affected by noble rot.

Trockenbeerenauslese – dried berries hand-picked very late in the season, usually affected by Botrytis mold.

Explanations: For the purpose of clarity Riesling in this dissertation will always be Rhine Riesling or Weißer Riesling. This will apply for the South African and the German text too.

Crouchen Blanc statistics have not been analyzed in detail.

15. Appendices

15.1 Riesling Profile

Rhine Riesling/ Weisser Riesling: Balance of Fruit, sweetness and acidity; ages well, mostly no oak

Nose: tart, lime, strongly aromatic, floral, honey, spice, peach, apricot, “terpene character”

Palate: “racy acidity”, complex, long-lasting, length of flavor, can be sweet; perception of low alcohol; floral, limes, fruity, terpenes

When aged: old honey, oily *When noble rot*: dried apricots

Old World: pale, brilliant appearance; aroma of lemons, limes, earthiness, oily with age; palate lemony, acid, or sweet or oily. *New World*: shades darker appearance; aromas of peaches, apricot, citrus, mandarin, honey with age; palate juicy fruit salad (mostly off-dry to sweet)

Residual Sugar

In SA: dry: ≤ 5g/l RS; semi-dry: 5≤12g/l RS; Semi-sweet: <5<30g/l RS; NLH: ≥50g/l RS

In Germany: laws of RS per region, Jancis Robinson says “typically dry would be 83-104° Oechsle”; 93° Oechsle is 12% alc.;

Rheingau VDP wineries say dry is < 9g/l RS, medium dry is from 9 to <18g/l RS

Mosel Laws: All QbA in Mosel must have min. 51° Oechsle and consequently then, all QmP wines in Mosel (Kabinett min. 70° Oechsle; Spätlese 76° Oechsle; Auslese 83°; Beerenauslese (botrytis) 110°; TBA (botrytis) 150°; Eiswein (less botrytis than in 2 prev. categories, no min. style of production)

Where

Germany, Alsace, Austria, South Africa, Australia/NZ, USA (Washin.state, Oregon, NY State Finger Lakes, California), Canada (Ontario, B.Columbia) Chile, Slovakia, Italy, Switzerland

New Zealand: grassy (damp and cool climate)

South Africa: full flavoured, often off-dry, semi-sweet, fruity acid; 275 ha (from 06/07 SA Wine Direct) Dry: Paul Cluver, Thelema Sutherland, Villiera Woolworths; Off-dry: 11 - 30g/ l RS: Jordan Riesling, Thelema Rhine Riesling, Deetlefs Weisser R; Sweet >31g / l RS: Paul Cluver NLH, De Wetshof Edeloos, Neethlingshof WR NLH

Germany: Mosel-S-R (mostly slate rock): low alc, high acid, high sugar (in balance to acid): some apple notes, minerality (In SA QbA, Kabinett and Beerenauslese available) Well-known are R. von Kesselstatt, Egon Müller-Scharzhof,

Alsace: (sandstone): bone dry, very aromatic (long ripening), fruity, good body, milder acid (limestone/calcareous): opulent, milder acid, the more limest. the more exotic fruit (In SA some Schlumberger wines, incl. AOC and AOC Grand Cru). Well-known are Trimbach and Zind-Humbrecht.

Wine & Spirit Board in SA, 31.July 2008: Riesling from 2010 harvest-As from and in respect of wines of the 2010 harvest-

- (a) *Cape Riesling* may be shown as *Crouchen*, but not as *Riesling*
- (b) *Weisser Riesling/Rhine Riesling* may be indicated as *Riesling*

15.2 Contacts and people visited in the Rheingau

Fritz Allendorf: Mrs. Judith Rossberg, Krichstrasse 69; 65375 Oestrich-Winkel; Tel:+49 6723 91850; Fax:+49 6723 918540; www.allendorf.de

Hessische Staatsweingueter GmbH Kloster Eberbach: Mr. Ralf Bengel, Schwalbacher Strasse 56-62; 65343 Eltville am Rhein; Tel:+49 6123 9230-0; Fax:+49 6123 9230-90; www.weingut-kloster-eberbach.de

Diefenhardt'sches Weingut: Mr. Peter Seyffardt; Hauptstrasse 11; 65344 Eltville-Martinsthal; Tel:+49 6123 71490; Fax+49 6123 74841; www.diefenhardt.de

Weinbaudomäne Schloss Johannisberg: Mr. Christian Witte, Schloss Johannisberg; 65366 Geisenheim-Johannisberg; Tel:+49 6722 70090; Fax:+49 6722 700933; www.schloss-johannisberg.de

Künstler: Mr. Gunter Künstler, Geheimrat-Hummel-Platz 1a; 65239 Hochheim; Tel:+49 6146 83860; Fax:+49 6146 7335; www.weingut-kuentler.de

Schloss Vollrads: Mr. Cavalla; 65375 Oestrich-Winkel; Tel:+49 6723 660; Fax:+49 6723 6666; www.schlossvollrads.com

Robert Weil: Mrs. Verena Schoettele, Muehlberg 5; 65399 Kiedrich; Tel:+49 6123 2308; Fax:+49 6123 1546; www.weingut-robert-weil.com

Domdechant Werner: Mr. Bott, Rathausstrasse 30; 65239 Hochheim; Tel:+49 6146 835037; Fax:+49 6146 835038; www.domdechantwerner.com

Henkell & Co.: Mr. Matthias Walter, Biebricher Allee142; 65187 Wiesbaden; Tel:+49 611 63130; Fax:+49 611 6371130; www.henkell-soehnlein.de

Georg Breuer: Mrs. Theresa Breuer, Grabenstrasse 8; 65385 Ruesdeheim; Tel:+49 67221027; Fax:+49 67224531; www.georg-breuer.com

Mosel

Dr. Loosen: Mr. Michael Stahlmann, 544470 Bernkastel; Tel:+49 65313426; Fax:+49 65314248; www.drloosen.com

15.3 Contacts and people visited in South Africa

Günter Brözel, Somerset West, cellar master at **Nederburg** from 1956 to 1989; icon for SA wine industry, as he pushed for the 1969 Edelkeur, a noble late harvest, to be put on auction. The wine law at that time did not have a platform for selling botrytised wines, ie natural wines which exceeded 30g/l RS were illegal.

Johannes van Rensburg, **Distell**, Stellenbosch: former farm manager and viticulturist for Nederburg e-mail: jvanrensburg@distell.co.za; Distell building at Bergkelder, Merriman Ave., Stellenbosch

Tariro Masayiti, white wine winemaker at **Nederburg Wines**, Tel: 021 862 3104
www.nederburg.co.za

Ernst Le Roux, **Distell**, at Bergkelder, Merriman Ave., Stellenbosch

Jeff Grier, **Villiera Wines** and Domaine Grier, Stellenbosch; Tel: 021 865 2002/3
www.villiera.com

Marc van Halderen, winemaker, **La Vierge Wines**, Walker Bay; Tel: 028 313 0130
www.lavierge.co.za

Philip du Toit, viticulturist, and Ilse van Dijk, winemaker, **Deetlefs Wine Group**, Rawsonville, Tel: 023 349 1260; www.deetlefs.com

Hermann Kirschbaum, **Buitenverwachting**, Constantia, Tel: 021 794 5190;
www.buitenverwachting.com

Adam Mason, **Klein Constantia**, Constantia Tel: 021 794 5188
www.kleinconstantia.com

Pia Pengilly, Gerhard Swart, with Bruce Jack, **Flagstone Winery**, Somerset West, Tel: 021 852 5052
www.flagstonewines.com

Gary Jordan, with Robyn Martin, **Jordan Wine Estate**, Stellenbosch, Tel: 021 881 3441
www.jordanwines.com

Peter and Lesca de Wet, **De Wetshof Estate**, Robertson, Tel: 023 615 1853
www.dewetshof.com

15.4 Riesling clones sold in SA over the last 5 years and the clones on order for 2009

Name	District	Year	Vines ordered	Vines sold	CULTIVAR	Clones
BABYLON FARM	Hermanus	2005	2,300	2,300	WEISSER RIESLING	WR 110 F
VOORGROENBERG	Wellington	2005	513	513	WEISSER RIESLING	WR 110 F
VOORGROENBERG	Wellington	2005	1,371	1,371	WEISSER RIESLING	WR 239 Z
		2005 Total	4,184	4,184		
LELIENFONTEIN K	Wellington	2006	90	90	WEISSER RIESLING	WR 110 F
BABYLON FARM	Hermanus	2006	20	20	WEISSER RIESLING	WR 110 F
GLENELLY VINEYA	Stellenbosch	2006	90	90	WEISSER RIESLING	WR 110 F
GLENELLY VINEYA	Stellenbosch	2006	32	32	WEISSER RIESLING	WR 110 F
BABYLON FARM	Elgin	2006	100	100	WEISSER RIESLING	WR 110 F
MIA		2006	10		WEISSER RIESLING	WR 110 F
GLENELLY VINEYA	Stellenbosch	2006	52	52	WEISSER RIESLING	WR 110 F
VOORGROENBERG	Wellington	2006	25	25	WEISSER RIESLING	WR 110 F
GLENELLY VINEYA	Stellenbosch	2006	4124	4124	WEISSER RIESLING	WR 110 F
BABYLON FARM	Hermanus	2006	665	665	WEISSER RIESLING	WR 110 F
		2006 Total	5208	5198		
BABYLON FARM	Hermanus	2007	2369	2,369	WEISSER RIESLING	WR 110 F
BABYLON FARM	Hermanus	2007	1130	1,130	WEISSER RIESLING	WR 110 F
Lelienfontein (Foundation block)	Hermanus	2007	50	50	WEISSER RIESLING	WR 110 F
Lelienfontein (Foundation block)	Hermanus	2007	20	20	WEISSER RIESLING	WR 110 F
Speculation		2007	1500	0	WEISSER RIESLING	WR 110 F
Speculation		2007	400	0	WEISSER RIESLING	WR 110 F
Speculation		2007	18	0	WEISSER RIESLING	WR 110 F
Lelienfontein (Foundation block)	Hermanus	2007	1	0	WEISSER RIESLING	WR 110 F
Speculation		2007	11	0	WEISSER RIESLING	WR 110 F
VOORGROENBERG	Wellington	2007	50	50	WEISSER RIESLING	WR 110 F
LOUW PHISANTEKR	Durbanville	2007	2000	2,000	WEISSER RIESLING	WR 110 F
STATOS TAX SYST		2007	6600	6,600	WEISSER RIESLING	WR 239 Z
Speculation		2007	500	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1500	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1600	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1350	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1850	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	45	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	550	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1500	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1500	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1500	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1500	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1500	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1223	0	WEISSER RIESLING	WR 239 Z
Speculation		2007	1	0	WEISSER RIESLING	WR 239 Z
LOUW PHISANTEKR	Durbanville	2007	3150	3150	WEISSER RIESLING	WR 239 Z
LOUW PHISANTEKR	Durbanville	2007	250	250	WEISSER RIESLING	WR 239 Z

Name	District	Year	Vines ordered	Vines sold	CULTIVAR	Clones
LOUW PHISANTEKR	Durbanville	2007	11100	11100	WEISSER RIESLING	WR 239 Z
Speculation		2007	8	0	WEISSER RIESLING	WR 239 Z
LOUW PHISANTEKR	Durbanville	2007	5500	5500	WEISSER RIESLING	WR 239 Z
Speculation		2007	270	0	WEISSER RIESLING	WR 239 Z
LOUW PHISANTEKR	Durbanville	2007	820	820	WEISSER RIESLING	WR 239 Z
LOUW PHISANTEKR	Durbanville	2007	2180	2,180	WEISSER RIESLING	WR 239 Z
BILTON WINES		2007	3800	3800	WEISSER RIESLING	WR 239 Z
CAPE VINES	Wellington	2007	20	20	WEISSER RIESLING	WR 239 Z
AVONDROOD TRUST		2007	1024	1,024	WEISSER RIESLING	WR 239 Z
VOORGROENBERG	Wellington	2007	50	50	WEISSER RIESLING	WR 239 Z
Lelienfontein (Foundation block)	Wellington	2007	150	150	WEISSER RIESLING	WR 239 Z
		2007 Total	57090	40263		
WEGGOOI		2008	2,801	0	WEISSER RIESLING	WR 239 Z
WEGGOOI		2008	3,500	0	WEISSER RIESLING	WR 239 Z
VALULINE		2008	1,472	1472	WEISSER RIESLING	WR 239 Z
STATOS TAX SYST		2008	1,500	1500	WEISSER RIESLING	WR 239 Z
WEGGOOI		2008	5,300	0	WEISSER RIESLING	WR 239 Z
WEGGOOI		2008	1,918	0	WEISSER RIESLING	WR 110 F
WEGGOOI		2008	7,367	0	WEISSER RIESLING	WR 239 Z
WEGGOOI		2008	633	0	WEISSER RIESLING	WR 239 AG
BABYLON FARM PLANT 2009	Hermanus	2008	500	0	WEISSER RIESLING	WR 239 AG
BABYLON FARM PLANT 2009	Hermanus	2008	353	0	WEISSER RIESLING	WR 239 AG
VALULINE		2008	1,428	1,428	WEISSER RIESLING	WR 239 AG
VALULINE		2008	1,470	1,470	WEISSER RIESLING	WR 110 F
KOELKAMER 2008		2008	500	0	WEISSER RIESLING	WR 110 F
KOELKAMER 2008		2008	152	0	WEISSER RIESLING	WR 110 F
VALULINE		2008	1,650	1650	WEISSER RIESLING	WR 110 A
KOELKAMER 2008		2008	40	0	WEISSER RIESLING	WR 110 A
Lelienfontein (Foundation block)	Hermanus	2008	4	4	WEISSER RIESLING	WR 110 F
VOORGROENBERG	Wellington	2008	14	14	WEISSER RIESLING	WR 110 F
BABYLON FARM PLANT 2009	Hermanus	2008	950	0	WEISSER RIESLING	WR 110 F
BABYLON FARM PLANT 2009	Hermanus	2008	1,500	0	WEISSER RIESLING	WR 110 F
BABYLON FARM PLANT 2009	Hermanus	2008	961	0	WEISSER RIESLING	WR 110 F
KOELKAMER 2008		2008	67	0	WEISSER RIESLING	WR 110 F
KOELKAMER 2008		2008	50	0	WEISSER RIESLING	WR 110 F
VALULINE		2008	900	900	WEISSER RIESLING	WR 110 A
Lelienfontein (Foundation block)	Wellington	2008	2	2	WEISSER RIESLING	WR 239 Z
KOELKAMER 2008		2008	800	0	WEISSER RIESLING	WR 239 Z
KOELKAMER 2008		2008	531	0	WEISSER RIESLING	WR 239 Z
		2008 Total	36,363	8440		
BABYLON FARM	Hermanus	2009	500		WEISSER RIESLING	WR 239 AG
BABYLON FARM	Hermanus	2009	353		WEISSER RIESLING	WR 239 AG
Speculation		2009	500		WEISSER RIESLING	WR 110 F
Speculation		2009	152		WEISSER RIESLING	WR 110 F

Name	District	Year	Vines ordered	Vines sold	CULTIVAR	Clones
Speculation		2009	40		WEISSER RIESLING	WR 110 A
BABYLON FARM	Hermanus	2009	950		WEISSER RIESLING	WR 110 F
BABYLON FARM	Hermanus	2009	1,500		WEISSER RIESLING	WR 110 F
BABYLON FARM	Hermanus	2009	596		WEISSER RIESLING	WR 110 F
Speculation		2009	365		WEISSER RIESLING	WR 110 F
Speculation		2009	67		WEISSER RIESLING	WR 110 F
Speculation		2009	50		WEISSER RIESLING	WR 110 F
Speculation		2009	800		WEISSER RIESLING	WR 239 Z
Speculation		2009	531		WEISSER RIESLING	WR 239 Z
Speculation		2009	2,100		WEISSER RIESLING	WR 110 F
Speculation		2009	124		WEISSER RIESLING	WR 110 F
CLUVER FAMILY TRUST	Elgin	2009	5,500		WEISSER RIESLING	WR 110 A
CLUVER FAMILY TRUST	Elgin	2009	2,500		WEISSER RIESLING	WR 110 F
Speculation		2009	949		WEISSER RIESLING	WR 110 F
BABYLON FARM	Hermanus	2009	2,585		WEISSER RIESLING	WR 239 AG
Speculation		2009	155		WEISSER RIESLING	WR 239 AG
BABYLON FARM	Hermanus	2009	1,916		WEISSER RIESLING	WR 239 Z
Speculation		2009	115		WEISSER RIESLING	WR 239 Z
2009 Total			22,348			
Grand Total			125,193	58,085		
Source: Charles Visser, Vititec, spreadsheet: WR clones sold_05_09.xls						

15.5 Wine Law SA



WINE LAW

INFORMATION

31 July 2008

8 of 2008

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RIESLING FROM THE 2010 HARVEST

1 Introduction

Thank you for all your comments on the proposal re above-mentioned as set out in Wine Law 5 of 2008. After due consideration thereof the board has decided to recommend as below to the Minister of Agriculture.

2 Recommendation

As from and in respect of wines of the 2010 harvest -

- (a) Cape Riesling may be shown as Crouchen, but not as Riesling; and
- (b) Weisser Riesling/Rhine Riesling may be indicated as Riesling.

Products of prior harvests must still comply with the pre-2010 dispensation and may be sold as such until stocks are exhausted.

This recommendation will still not allow Cape Riesling to be exported to the European Union as such - it will have to be indicated as Crouchen.


ANDRÉ MATTHEE

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WINE AND SPIRIT BOARD**

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Annexure B (to the Wine Law SA)

TABLE 1

GRAPE CULTIVARS WHICH MAY BE USED FOR THE PRODUCTION OF WINE

[Reg. 2]

Alicante Bouschet (Henri Bouchet)	Furmint	Pontak (Teinturier male)
Auxerrois	Gamay noir	Raisin blanc (Gros Vert)
Barbera	Gewürztraminer	Riesling*** (Weisser Riesling;
*Barlinka	Grachen	Ryn Riesling; Rhine Riesling)
*Bastardo do Castello	Grenache (Rooi/Red Grenache)	Roobernet
Bastardo do Menudo	Grenache blanc (Wit/White Grenache)	Roussanne
*Bourboulenc	Harslevelü	Ruby Cabernet
Bukettraube	*Kanaän (Belies; Canaän)	Sangiovese
Cabernet Franc	Kerner	Sauvignon blanc (Blanc Fumé)
Cabernet Sauvignon	Malbec	Schönburger
Carignan	Merlot	Sémillon (Groendruif)
*Ceresa	Meunier (Pinot Meunier)	Shiraz (Syrah)
Chardonnay	Morio Muscat	Souzão
Chenel	*Mourisco tinto	Sultana (Sultanina;
Chenin blanc (Steen)	Mourvèdre (Mataro)	Thompson's Seedless)
Cinsaut	Müller-Thurgau	Sylvaner
*Cinsaut blanc	Muscat d'Alexandrie (Hanepoot)	Tannat
*Cinsaut gris	Muscat de Frontignan (Muskadel;	Tempranillo (Tinta Roriz)
Clairette blanche	Muscadel)	Therona
Colombar (Colombard)	Muscat de Hambourg	Tinta Amarella (Tinta Amarela;
*Colomino	Muscat Ottonel	Trincadeira; Trincadeira Preta)
Cornifesto	Nebbiolo	Tinta Barocca
Crouchen (Riesling**; Cape Riesling; Kaapse Riesling)	Nouvelle *Olasz	Tinta Francisca Touriga Franca
*Donzellinho do Castello	Palomino (Fransdruif; White French)	Touriga Nacional
*Donzellinho do Gallego	*Pedro (Valse)	Ugni blanc (Trebiano)
Durif	Petit Verdot (Verdot)	Verdelho
Emerald Riesling	Pinotage	Viognier
*Erlihane	Pinot blanc (Weissburgunder)	Weldra
*Ferdinand de LesSeptembers	Pinot gris (Pinot grigio)	Zinfandel (Primitivo)
Fernão Pires	Pinot noir	

*The designation of this grape cultivar shall lapse on 31 December 2010.

**This name (Riesling) may only be used for wine produced from the Crouchen grape cultivar until, and inclusive of, the 2009 grape harvest.

***This name (Riesling) may only be used for wine produced from the Weisser Riesling/Rhine Riesling grape cultivar as from the 2010 grape harvest.

*Die aanwysing van hierdie druifcultivar verval op 31 Desember 2010.

**Hierdie naam (Riesling) mag slegs gebruik word vir wyn geproduseer van die Crouchen druifcultivar tot, en met insluiting van, die 2009 druiwe-oes

***Hierdie naam (Riesling) mag slegs gebruik word vir wyn geproduseer van die Weisser Riesling/Ryn Riesling druifcultivar vanaf die 2010 druiwe-oes.

[Table 1 amended by GN R838/91, GN R2593/92, GN R1876/95, GN R1038/97, GN R1078/98 and GN R21/2001, substituted by GN R343/2003, amended by GN R77/2006, substituted by GN R814/2006 and GN R555/2009]

Source: Taken from SAWIS website, Wine Law, Alerts, 12.June 2009, 5 of 2009

15.6 Where Riesling is grown in Germany

GERMANY*

Germany is the ancestral homeland for Riesling. The grape is grown throughout the country and delivers wonderfully expressive and varied selections of Riesling. Historically the Mosel, Rheingau and Rheinhessen are the most important regions, with notable wines also grown in Pfalz and Nahe.

Mosel

The Mosel produces the best wines, and is portrayed as the benchmark of quality. Mosel wines tend to be delicate, lower in alcohol, higher in acid, floral and intensely mineral. They are usually made in an off-dry style, owing to their elevated acidity. This is THE Riesling region, with 66% of its total acreage being dedicated to Riesling. The Mosel is commonly planted on steep, south-facing hillsides of high planting density along the Mosel River. Soils are mostly composed of slate though volcanic rocks can be found. The best vineyards are often Erste Lage from VDP producers. Classic producers include Dr. Loosen, Markus Molitor, Selbach-Oster, J.J. Prüm, Dr. Thanisch and Von Schubert (Maximin Grünhaus), among many others.

Rheingau

Riesling is the dominant planting in the Rheingau and considered by some as the traditional home of the grape. Many wines are made in the dry style and are rich and full-bodied. There is usually a pronounced acidity and spiciness to the wines and often a characteristic Kirsch or cherry fragrance. This is the home of the Kloster Eberbach, Schloss Johannisberg and the famous Geisenheim winemaking school.

Rheinhessen

This is Germany's largest wine region. Wines tend to be softer, lower in acidity, fragrant and medium-bodied. Rheinhessen is home of the infamous Liebfraumilch and is mostly known for its Trocken wines.

Pfalz

(Palatinate)

The Pfalz region is known for its brilliant dry Rieslings, as well as for its spicy Spätlesen and Auslesen. There is a clone of Riesling (Clone 90) unique to the Pfalz, developed at the Neustadt Research Institute, which is believed to be responsible for Pfalz wines' unique spicy character. Pfalz is the home of the Weinstrasse (famous wine road). Classic producers include Müller-Catoir and Bürklin-Wolf.

Nahe

The Nahe River flows parallel to the Mosel and is a tributary of the Rhine River. This was traditionally a very important Riesling region, and produces excellent dry Riesling. Top producers include Schlossgut Diel and Weingut Dönnhoff.

Other German Riesling-producing regions include Baden, Württemberg and Franken.

***Source: www.drinkriesling.com**

15.7 VDP Rules



VDP. Die Prädikatsweingüter

DAS VDP KLASSIFIKATIONSMODELL VON 2006* Meilenstein einer terroirgeprägten Weinkultur in Deutschland

ERSTE LAGE

Aus den besten Weinbergen Deutschlands
Von trockenen Grossen Gewächsen zu fruchtsüßen Prädikatsweinen

Die hochwertigsten Terroirs sind parzellengenau abgegrenzt und bestimmten Rebsorten und Geschmacksprofilen zugeordnet, Ertrag maximal 50 hl/ha, selektive Handlese, Mostgewicht mindestens Spätlese, Vermarktung ab 1. September, Rotweine ein Jahr später

KLASSIFIZIERTE LAGE


Nur Weine aus traditionellen und hochwertigen
Weinbergen werden mit dem Lagenamen ausgestattet

Aus der Vielzahl der weingesetzlichen Lagen wurde eine kleine Gruppe charaktvoller, traditioneller Weinberge klassifiziert. Keine Einschränkung bei den Geschmacksprofilen, Ertrag maximal 65 hl/ha, regional festgelegte Rebsorten und höhere Mindestmostgewichte

GUTSWEINE UND ORTSWEINE

Basisweine auf hohem Niveau
Spiegel der regionalen Terroirs

Anbau von mindestens 80% VDP empfohlener traditioneller und gebietstypischer Rebsorten, Ertragsbegrenzung auf maximal 75 hl/ha, regional festgelegte Mindestmostgewichte

*Diese Rahmenbedingungen des Bundesverbandes sind in den einzelnen Regionen teilweise enger gefasst. Bei allen Weinen garantiert der Traubenadler auf der Kapsel einen ökologisch verantwortlichen Weinbau, eine Vinifikation ausschließlich mittels traditioneller Verfahren, regelmäßige Betriebsprüfungen und organoleptische Qualitätskontrollen sowie bestimmte Vermarktungsrichtlinien. Die Begriffe ERSTE LAGE  und GROSSES GEWÄCHS sind Eigenmarken des VDP.

15.8 Sugar or Sweetness (incl. SA and German data)

SOUTH AFRICA: In *Still Wine*: extra *Dry* or bone *Dry* wines have less than 2.5g/l *Residual Sugar*, undetectable to the taster. A wine legally is *Dry* up to 5g/l. Taste buds will begin picking up a slight sweetness, or softness, in a wine, depending on its acidity, at about 6g/l, when it is still off-*Dry*. By about 8-9g/l a definite sweetness can usually be noticed. However, an acidity of 8-9g/l can render a *Sweet Wine* fairly crisp even with a sugar content of 20g/l plus. Official sweetness levels in South Africa are:

Still Wines	Sugar (g/l)	Sparkling Wines	Sugar (g/l)
Extra-dry	≤ 2.5	Extra-dry / Brut	≤ 15
Dry	2.5 ≤ 5	Dry / Sec	15 - 35
Semi-dry	5 ≤ 12	Semi-sweet / Demi-Sec	35 - 50
Semi-sweet	<5 <30	Sweet / Doux	50
Late Harvest	20 ≤ 30		
Special Late Harvest (SLH)	≤ 50		
Natural Sweet (or Sweet Natural)	> 20		
Noble Late Harvest (NLH)	> 50		
Naturally dried grape wines (straw wine)	> 30		

Source: <http://www.classicwines.co.za/c93/Vinicultural-Styles.aspx>

GERMANY : German Sugar Requirements in Still Wines are:

Dry: up to 9g/l RS, with an acidity of max 2g/l lower than the RS (ie Acid + 2 = maximum 9) ; Classic Dry is defined as up to 4g/l RS

Off-dry: Halbtrocken, Feinherb: max. 9- 18g/l RS, with an acidity of max 10g/l lower than the RS (ie Acid + 10 = maximum 18)

Semi-Sweet: > 18 g/l RS, maximum 45g/l RS

Sweet:> 45g/l RS

“Erstes Gewächs” (only for Rheingau): always dry; vineyards need 208 kj sunshine per year per sqm; minimum 83/93° Oechsle (whereby mostly Spätlese quality, so 85 to 95° Oechsle); since 1999 in Hessen Wine Law; annual admission necessary; analytically dry according to Rheingau Weinbau Verband is <13g/l RS and according to VDP < 9 g/l RS;

Erstes Gewächs is 20% more work intensive and 20% less harvest yield.

Sources: Weingut Kuenstler, Hochheim; <http://de.wikipedia.org/wiki/Mostgewicht>
http://de.wikipedia.org/wiki/Geschmacksangabe_%28Wein%29

15.9 Labeling Requirements for South African wines

If the under-mentioned or similar expressions are used on wine (excluding fortified wine and sparkling wine), the following requirements apply:

-extra dry	:	a max residual sugar content of 2,5 g/l
-dry	:	a max residual sugar content of 5 g/l
-semi-dry	:	a residual sugar content between 5 and 12 g/l
-semi-sweet	:	a residual sugar content between 5 and 30 g/l
-sweet	:	a residual sugar content of more than 20 g/l

For sparkling wine the following requirements apply (where the residual sugar content justifies the use of more than one designation, only one may be used):

- brut nature (or Naturherb, Bruto natural, Pas dose, Dosage zero, Natūralusis briutas, Īsts bruts, Přírodně tvrde, Popolnoma suho, Dosaggio zero) : a residual sugar content of less than 3 g/l.
- extra brut (or Extra herb, Ekstra briutas, Ekstra brut, Ekstra bruts, Zvláště tvrde, Extra bruto, Izredno suho, Ekstra wytrawne) : a residual sugar content of less than 6 g/l.
- brut (or Herb, Briutas, Bruts, Tvrde, Bruto, Zelo suho, Bardzo wytrawne) : a residual sugar content of less than 15 g/l.
- extra dry (or Extra trocken, Extra seco, Labai sausas, Ekstra kuiv, Ekstra sausais, Kulonlegeszen szaraz, Wytrawne, Suho, Zvláště suche, Extra suche) : a residual sugar content of more than 12 g/l, but less than 20 g/l.
- dry (or Sec, Trocken, Secco, Asciutto, Ξηρός, Tor, Seco, Torr, Kuiva, Sausas, Kuiv, Sausais, Szaraz, Połwytrawne, Polsuho, Suche,) : a residual sugar content of more than 17 g/l, but less than 35 g/l.
- semi-sweet (or Demi-sec, Halbtrocken, Abboccato, Halvtor, Medium dry, Ημιξηρος, Semi seco, Meio seco, Halvtorr, Puolikuiva, Pusiau sausas, Poolkuiv, Pussausais, Felszaraz, Połslodkie, Polsladko, Polosuche, Polosladke) : a residual sugar content of more than 33 g/l, but less than 50 g/l.
- sweet (or Doux, Mild, Dulce, Sod, Dolce, Γλυκύς, Doce, Sot, Makea, Saldus, Magus, Pussaldais, Edes, Ģelu, Słodkie, Sladko, Sladke) : a residual sugar content of more than 50 g/l.

Source:

http://www.sawis.co.za/forms/download/ETIKETVEREISTES_web_layout.doc

15.10 Under the Influence of Riesling: Tasting in Johannesburg

UNDER THE INFLUENCE OF RIESLING festival, Tasting and Dinner in Johannesburg, presented these wines

Feb-09

Tasting

Winzer	no of btl	wine 1	wine 2
Egon Mueller		2007 Scharzhofberger Kabinett	1999 Scharzhofberger Spätlese
Dr Loosen		2007 Urziger Wurzgarten Qualitätswein trocken	2007 Urziger Wurzgarten Auslese
J.L.Wolf		2007 Ungeheuer Forst Spätlese dry	2007 Pechstein Forst Spätlese dry
Brundeimeyer		2006 Riesling Steinmassel	2007 Heiligenstein
Wittmann		2007 AULERDE Grosses Gewaechs	2007 KIRCHSPIEL Grosses Gewaechs
Dönnhoff		2007 Felsentuemchen Spatlese	2007 Norheimer Delichen Riesling Grosses Gewächs
Niepoort		Riesling Projectos Douro dry	Riesling Projectos Douro

Dinner

Winzer	no of btl	wine 1	wine 2
J.L.Wolf	9	2007 Pechstein Forst Spätlese dry	
Egon Mueller	9	1995 Scharzhofberger Kabinett	
Wittmann	9	2007 MORSTEIN Grosses Gewaechs	
Brundeimeyer	9	2003 RIESLING ZÖBINGER HEILIGENSTEIN ALTE REBEN	
Wener Naeckel	9	2006 Pinot Noir	
Niepoort	8	2006 Pinot Noir	
Niepoort	9	2006 Charme	
Dönnhoff	9	2007 Felsentuemchen Spatlese	
Dr Loosen	9	Beerenauslese	

15.11 Riesling Questionnaire 2009

In the quest to learn the differences and common factors of different Riesling wines in South Africa and Rheingau, here a questionnaire.

Name of winery, Winemaker, Address, Wine region

Name your most important Riesling wines, and how well they have done (in competitions, ratings)?

Since when are you producing these Riesling wines/ how many vintages exist?

What is typical for your region (style of wine and taste profile)?

Your Riesling wines: what percentage of your whole portfolio are they in turNovemberer?

What makes your wine so unique?

What are the inconveniences of planting Riesling in your area?

Viticulturally

Viniculturally

Please describe your environment and climate (terroir) in detail to me.

Which of these characteristics are transmitted in your Riesling wines?

What clone of Riesling do you use? How old are your vineyards?

On what basis do you decide to pick?

Do you use bio-dynamic, organic practices in the vineyard?

What is the typical analysis of your grapes when picked?

What is the typical analysis of your wines when finished?

How do you make the wines: eg .make a range of different wines from a single vineyard? Only produce one style? Depends on every harvest?

What closures do you use (cork, stelvin, glass, screwcap)? Does this have an effect on the ageing potential of your wines? Why?

What do you think:

Can really good Riesling be made in warm New World Climates?

Is there not a problem with petrol notes, and rapid ageing?

What is the future of Riesling in your country? What style should be marketed?

Any other suggestions?

15.12 SA Wine Industry Directory 2009/2010

Cape Riesling

Synonyms: Cruchen blanc, Crouchen blanc

Description: *Shoot tips* Yellowish green, slightly webby. *Leaves* Medium large, webby underneath, changing from a light green colour when young to dark green during ripening. *Bunches* Medium small, very compact. *Berries* Small, round with a thin, soft skin.

Cultivation characteristics *Soils* Medium potential. *Climate* Cool. *Susceptibility* Botrytis, sour rot, rain, powdery and downy mildew. *Ripening period* Mid-season.

Wine characteristics: Delicate wines in cool regions with subtle thatch roof character.

FIVE YEAR TREND (% OF TOTAL AREA): 2008: 0.88 and 2003: 1.2

Main plantings: Bredekloof, Paarl, Worcester

Weisser Riesling

Synonyms: Riesling, Rhine Riesling, White Riesling, Johannisberg Riesling, Riesling Renano, Reno

Description: *Leaves* Medium large, cobwebby, round with blunt teeth, red petioles. *Shoot tips* Very felty, yellowish-green to reddish. *Bunches* Small, cylindrical, very compact with a very short, tough peduncle. *Berries* Medium small, round, green-yellow with a tough, medium thick skin.

Cultivation characteristics: *Soils* Medium potential, though well-adapted to different types. *Climate* Cool. *Susceptibility* Not very sensitive to oidium and downy mildew; very sensitive to botrytis. *Ripening period* End Februaryruary, beginning March.

Wine characteristics: *Aromas* White pepper, lime, terpene. *Structure* High fruit acid.

Wine trends: A very small number of varietal wines, produced across a range of styles from dry to botrytised Noble Late Harvests. Renewed consumer interest has spurred producers to pay more attention to quality and marketing.

FIVE YEAR TREND (% OF TOTAL AREA): 2008: 0.21 and 2003: 0.3

Main plantings: Stellenbosch, Robertson, Paarl

15.13 IRF Tasting profile



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Directors:

Shawn Bavaresco
Pacific Rim Winemakers, Washington

Dan Berger
Writer & Columnist, California

Jim Bernau
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Jim Caudill
Brown-Forman Wines, Global

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Scott Harvey
Scott Harvey Wines, California

Bernard Hickin
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Jerry Lohr
J. Lohr Vineyards & Wines, California

Bob Madill
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Ed O'Keefe III
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Nicolas Quille
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Roth Coleman Attorneys & Counselors,
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Wines of Germany

Peter M.F. Sichel
Consultant
Former German Winery Owner

Wendy Stuckey
Chateau Ste. Michelle, Washington

Jim Trezise
New York Wine & Grape Foundation

Nik Weis
Weingut St. Urbans-hof, Germany

Christian Witte
Schloss Johannisberg, Germany

The International Riesling Foundation (IRF) has created a Riesling Taste Profile intended to help consumers know the relative dryness or sweetness of a particular bottle of Riesling.

The IRF invites all Riesling producers to use the taste profile according to the standards cited below; and requests that producers using the taste profile send an email to: jimtrezise@nywgf.org

The IRF requires that the description of the wine on the label be consistent with the wording on the taste profile.

The IRF invites and encourages users of the taste profile to become a "Friend of the Foundation", with more details available from jimtrezise@nywgf.org

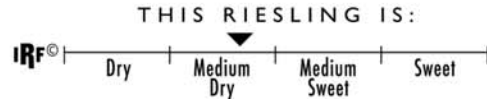
To download high quality taste profile choices click here: [Taste Profile Scales - JPEG](#) or [Taste Profile Scales - Vector](#)

Standards for using the International Riesling Foundation "Taste Profile"

1. The taste profile can print any legible color.



2. The taste profile can be positioned horizontally or vertically.



3. The taste profile can be reduced in length to a minimum of 45 mm (about 1.75 inches)

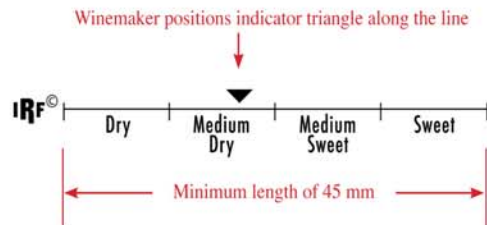
4. The label designer can choose from the four variations of the taste profile provided.



5. The taste profiles may not be altered graphically in any way except for size, color, and the position of the indicator arrow/triangle along the line to indicate dryness/sweetness.

The arrow/triangle must remain the same distance from the line and moved parallel to the line. The placement of arrow/triangle is a subjective decision made by the winemaker.

A technical guide for the placement of the arrow/triangle on the taste profile is in the following chart. However, the ultimate decision is that of the winemaker.



Riesling Sugar Guidelines: The Scale

It is proposed that the International Riesling Foundation supports four sweetness categories for Riesling, as set forth below, using no numbers to designate the various categories. They will be referenced only by the terms we used for each of the four categories. Wineries are encouraged to use these categories on all their literature and labeling as well as verbally as a guide for wholesalers, retailers, restaurateurs and consumers.

In the following list, sugar and acid are listed in grams per liter.

The proposal is as follows:

Dry. All wines carrying this designation will have a sugar-to-acid ratio not exceeding 1.0. For example, a wine with 6.8 grams of sugar and 7.5 grams of acidity would be in the same category as a wine with 8.1 grams of sugar and 9.0 grams of acid. Similarly, a wine with 12 grams of sugar and 12 grams of acid would be classified as dry.

Notice also that wines that are totally or “near-totally” dry (such as 4 grams per liter) will have a much lower ratio. For instance, a wine with only 3 grams of sugar and a total acidity of 6 grams per liter will have a ratio of .5, and clearly the wine is dry.)

As to pH: we assume that the range of pHs for most Rieslings is between 2.9 and 3.4. So 3.1 is the “base” pH with which most wine makers will be working. So if the pH of wine is 3.1 or 3.2, it remains in this dry category. But if the pH is 3.3 or 3.4, it moves up to Medium Dry. (And if the pH is 3.5 or higher, the wine maker may wish to move the wine to Medium Sweet.)

Medium Dry. Here the ratio is 1.0 to 2.0 acid to sugar. Example: a wine with 7.5 grams of acid could have a maximum sugar level of 15.0 grams. And if the pH is above 3.3, it moves to Medium Sweet, and if the pH is as low as 2.9 or lower, the wine moves to Dry.

Medium Sweet. The ratio here is 2.1 to 4.0 acid to sugar. Example: a wine with 7.5 grams of acid could have a maximum sugar level of 30 grams. And again, the same pH factor applies as a level two wine: if the pH rises to 3.3, you move up to Dessert, and if the pH drops to 2.9 you move to Medium Dry. And if the pH is 2.8 or below (highly unlikely), the wine could be called Dry.

Sweet. Ratio above 4.1, but using the pH adjustment, a sweeter wine with a ratio of, say, 4.4 might actually be moved to Medium Sweet if the pH is significantly lower.

It is vital that all IRF members adhere to the same terminology so when we speak to Riesling consumers about what is a dry wine and what is a medium dry wine, we are all speaking the same language.

This guideline should assist restaurants in that servers can verbally tell patrons what style of wine they will be getting. The more it is used, the more the terminology will be understood.

It is highly recommended that this guideline be used in conjunction with the IRF’s approved graphic interpretation, called The Taste Profile, that could be used on back labels, case cards, shelf-talkers, and so forth. For this proposal to have the greatest impact, the terms we offer above for the four levels of sweetness remain unchanged.

–Dan Berger

– See chart on the following page –



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A concise summary of the levels is shown below.

IRF RIESLING TASTE PROFILE, TECHNICAL GUIDELINES SUMMARY					
	SUGAR TO ACID RATIO	pH		pH	SHIFT DUE TO pH
DRY	< 1.0	3.1 to 3.2	If	= or > 3.3	Med Dry
				3.5 or >	Med Sweet
MEDIUM DRY	1.0 to 2.0			= or > 3.3	Medium Sweet
				< or = 2.9	Dry
MEDIUM SWEET	2.1 to 4.0			= or > 3.3	Sweet
				< or = 2.9	Medium Dry
				< or = 2.8	Dry
SWEET	= or > 4.1			< or = 2.9	Medium Sweet
				< or = 2.8	Medium Dry

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Wein.pur

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www.jancisrobinson.com

www.justriesling.co.za, website also related to Just Riesling, The Riesling Club and Under the Influence of Riesling

www.rheingauer-wbv.de

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