

Tales from the Riverbank

Viticulture and Vinification in Germany

Grape growing and wine making in Germany have seen significant changes in the last decade, at least at the branded/volume end of the market. For someone whose last visit to Germany was to negotiate Liebfraumilch contracts over ten years ago, some of these changes were a revelation. For instance, it is standard practice in the new World for big players to make wine themselves from grapes they crush, yet for Germany this type of approach is revolutionary. Of the big private wineries only Reh Kendermann (RK) and Zimmerman Graff & Muller are making wine directly from grapes and RK admit that they only started making wine as recently as 1995 when they were the first private winery to install temperature control. 2002 will be the first vintage when they make all their brands and project wines from grapes.

Growers Unlimited

Understanding the background and structure of the wine industry may help put this into perspective. There are 104,000 hectares of vineyards all shared by over 68,000 growers, few of whom are full time professional growers. Land holdings even for bigger players can be very scattered – for instance Ernie Loosen has 69 tiny parcels scattered across 3.5 hectares of the Wehlener-Sonnenuhr in Mosel. Liz Stich (Export Director RK) points out that a consumer-driven company like Reh-Kendermann needed to source grapes in the correct style for their brands “we can’t allow hobby winegrowers to dictate quality; the winery needs to control it” she says. To do this, Reh-Kendermann needed to source grapes directly - quite a challenge when negotiating with so many individuals. Changing grower mentality is tricky and while offering higher than market prices, along with quality bonuses and the right to reject, are all part of the deal, Reh-Kendermann have come up with a novel practical solution. Along with the first grower contracts in 1998 they introduced picking bins. These were originally builders’ skips with food grade plastic liners, but are now specially designed 8 tonne stainless steel bins. These are only delivered to the grower once the winery has agreed the picking date, so the grower cannot cheat and harvest early.

The “New Wave” companies have had to develop winemaking expertise too. Until the 1970s, no one needed cooling equipment as growers made wine in small vats in their own cellars in chilly German autumns. It was only with large volumes and giant vats that quality issues with lack of control arose. Monika Christmann at Geisenheim also confirmed that a tasting of historical reference samples dating back to 1930s showed a clear drop in quality in late 1960s and into 1970s probably linked to high yielding clones, wine making practices and earlier picking. The role of the big companies was just one of buying in wine made in these small cellars, bottling and selling (not marketing). It has been steep learning curve, with the inevitable flying winemakers providing a kick start, but today there is a new generation of young German wine makers with international experience.

Estate Reserve

In contrast, among the estates, a traditional minimal approach to winemaking is still widespread, with many estates using no temperature control, spontaneous fermentation and allowing ferments to stop naturally. Lingenfelder, for instance, sees himself as just a grower, not a winemaker, and prefers not to intervene. He admits that natural yeast often does not ferment to dryness yet he needs dry wine for his domestic customers who take 75% of his sales. Some producers such as Heymann-Lowenstein and Von Buhl mentioned long skin contact times (12 to 36 hours even with botrytis-infected fruit), and it would be interesting to

see how these wines with high phenolics age over the longer term. Reductive winemaking is the preferred approach at Robert Weil and for Jurgen Höfmann at RK, but more oxidative wine making in wooden vats is also widespread e.g. at Dr Burklin-Wolf, von Buhl and Acham-Magin. A naturally cool climate, along with high acidity and low pH, appear to allow winemakers a degree of freedom that is rare in the rest of the wine world.

Vines and Vineyards

Much of the emphasis on vineyard development seems to have been in red wines due to heavy domestic demand for reds (reds now account for 28.7% of vineyards compared to 11.4% in 1980). For instance, Dornfelder has become a household name, even though it was only produced in 1955 (as a cross between Helfensteiner x Heroldrebe) and classified as a wine grape in 1984. Pinot Noir has become Germany's second most planted grape with around 4-5 important clones planted in Germany. A Swiss clone called Mariafeld was registered in 1989 and Lingenfelder finds it a good clone, as it gets ripe and has open bunches to reduce rot. It also accumulates high sugar and has pure varietal fruit without a weedy/farmyardy character and, in most years, he does not need to chaptalise. Other clones include Stuber (from 1930s, small berries but botrytis prone), M1 and a new French clone 667 with small berries and very good quality. Other vine varieties that are increasing are Pinot Blanc and Pinot Gris, both driven by the demand for dry wines in the domestic market

Germany's most important vine is still Riesling at just over 21,000 ha, but viticultural development seems relatively limited. This may well be due to the fragmented nature of vineyard ownership. For instance, it's difficult to switch to training on wires if you own just a few vines here and there. Where possible, Höfmann is moving to training on wires rather than on single posts as he reckons it gives better assimilation. In the Röter Hang vineyard controlled by RK, he also uses leaf plucking and green harvest to get to around 8-9 leaves per bunch, with 15-16 bunches per vine.

Technical Developments

Geisenheim Research Institute is at the forefront of wine research in Germany. Its main research focus at present is to optimise existing technology. Current trials include experiments with a range of crusher/destemmers, and presses. Other projects have identified that use of fibre glass tanks is acceptable if handled with care and that rototanks and automatic pump-overs do not allow sufficient oxygenation. Understanding stainless steel is vital in Germany – Germans apparently invest in heavy metal when they make money, be it cars or wine vats!

Other trials include looking at Brettanomyces and its effect in stainless steel; red wine making with new varieties like Regent and Rondo to provide advice to growers; effect of UV radiation on grape composition and flavour development; picking dates; plus tests on solids and polyphenols released by various picking, handling and clarification methods. One trial indicated that machine picking has little effect on phenol extraction, but skin contact during transport and pumping results in significant phenol levels. Geisenheim stores some 300,000 reference samples (all under screw cap), including all its trials with bottles dating back to 1753.

Closures

As everywhere else, cork has come in for criticism though it is still the preferred closure for the home market. RK are using Nomacorq (which is guaranteed for 3 years by the manufacturer) after conducting their own trials for over 2 years. They also presented a comparative trial of stainless steel crown caps versus cork, which showed the wine under stainless steel to be significantly less developed.

This observation lends support to Ernie Loosen's viewpoint. He feels that German Rieslings, especially from the Mosel, develop much more slowly than New World Rieslings and that screwcaps like Stelvin have a useful function in slowing down development as well as reducing cork taint. He believes that German Rieslings may actually need a touch of oxidation through the cork to remove reductive aromas and allow them to develop. For him, a move to screw cap would mean changes to his wine making to allow more oxygenation. Instead, he is trialling silica discs under the cork to prevent TCA migration into the wine. He has found no cork taint problems so far, though these stoppers do require a "champagne style" corker to ensure corks are correctly orientated at insertion.

The Future

Viticultural and wine making improvements in Germany seem to be largely held back by the fragmented nature of the industry, which means there is a lack of critical mass to fund serious field trials and experiments. It seems likely that the industry will need to consolidate further with a significant shift towards professional growers for any major changes. In addition, the global insignificance of Germany's leading grape means that research funding is likely to be limited. However, the Research Institute at Geisenheim does seem to be leading the way forward in both practical research and training a new generation of committed wine makers.

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