

'Viticulture Raisonnée' and its practical use within the Champagne Region

To most Champagne is a name synonymous with quality, luxury and glamour. However few would associate it with environmentally friendly practices or sustainable agriculture. Despite this, the region of Champagne is the only appellation in France that works as a collective body to address these concerns and has created a formal entity, with financial backing, to ensure its members are educated and assisted in converting their vineyards to the practices of 'Viticulture Raisonnée'. This essay will examine how and why 'Viticulture Raisonnée' was set up in Champagne and the implications of using it in wine making practices.

Champagne has not always had a clean image. Until 1998 it was common practice to use unsorted and inorganic rubbish from Paris to fertilise the vineyards. Many thought the mineral content of the refuse would help with the common soil deficiency causing chlorosis in the region. It was known locally as "les bleus de ville" referring to the blue bags that the rubbish was shipped in, these bags never fully decomposed and small flecks can still be seen in soils of Champagne vineyards today. Therefore it will certainly take some time for these pollutants to work their way out of the ecosystem even with the new practices in place.

With the knowledge that society was becoming increasingly conscious of the environmental impacts of business and agriculture, the main regulatory body in Champagne 'Comité Interprofessionnel du Vin de Champagne' started to make changes. In 1998 it outlawed blue bagging and in 2001 issued a statement that marked the official launch of 'Viticulture Raisonnée'. It summarised its intentions as follows:

"de maîtriser, au niveau d l'exploitation prise dans son ensemble les effets de l'activité agricole sur l'environnement sans remettre en cause la rentabilité économique des exploitations."

Meaning it was to manage how and the level to which agriculture impacted on the environment without damaging profitability of the enterprise. A more common term would be "sustainable agriculture". The statement also expanded to say the short-term ambition was to encourage growers to sign up to the practice and establish a "ladder" scale that indicated how well each grower was complying. Financially backing would be given by the CIVC to assist growers.

The foundations for 'Viticulture Raisonnée' had already been set in 1993 when a company called Magister was established. This is an autonomous body that works together with growers, cooperatives and Champagne houses to bring to

life the aims and practices of these initiatives. The financial backing that the CIVC now offered this organisation meant that growers could be educated and supported in adapting to the new practices with limited financial impact on their businesses. This was crucial to encourage widespread participation across the region.

To implement these practices a handbook was created and sent out to all growers. It sets out the techniques to follow in 10 chapters, each with three levels of compliance required: 'R' indicates a requirement to protect the environment, 'O' an obligation to adhere to the spirit of the initiative and 'RE' a complimentary recommendation. The chapters and their objectives are as follows:

- 1) **'Aménagement et établissement du vignoble'** – Cleaning up of vineyards to promote the natural ecosystem
- 2) **'Nutrition du sol et de la vigne'** – Adapting how fertilisers are used in the vineyard, to limit intervention and to treat soil according to its needs
- 3) **'Entretien des sols'** – Preserve the properties of the soil and protect its vegetative cycle
- 4) **'Conduite de la vigne'** – Preserve the equilibrium & natural defences of the vine
- 5) **'Protection contre les gelées de printemps'** – Protect against frost using non polluting practices
- 6) **'Protection raisonnée du vignoble'** – Protect the vineyard from pest and disease using where possible natural resources
- 7) **'Mise en oeuvre des produits de protection de la vigne'** – Using products to protect the vine with minimal impact on the environment
- 8) **'Gestion des déchets'** – Management of waste to protect environment and reduce where possible
- 9) **'Formation et information des vignerons, autodiagnostic'** – Education of wine community in techniques of diagnosis to protect their vineyards in a responsible manner
- 10) **'Mémoire écrite de l'exploitation'** – Written accounts of exploitation to ensure all results are measurable and proven

The basis of these themes is the use of analysis and diagnostics in vineyard management. Magister is key in this process, each grower is able to give up to 2 acres of plots to a Magister representative who will visit it weekly and evaluate the properties of the land, and vulnerability to certain risks i.e. pest/diseases & soil deficiencies. The technician will then produce a report including the current sanitary state of the vineyard and a recommended programme of treatment. The Champagne region covers a wide variety of terrain and microclimates, so this practice can help a grower tailor his approach to the specific needs of his sites. Critically this aids the process of 'minimum intervention' because a grower will know how much and when to treat his soil/vines rather than doing so for precautionary reasons.

Magister also monitor the region as a whole and publish regular updates on the internet or by fax to growers so they can be updated on the potential threats from pests, disease and weather conditions. This will then help the farmer to put their practices into place at the optimal moment.

Although techniques will differ from grower to grower, there are some standard practices employed in 'Viticulture Raisonnée' to varying degrees.

First there is the cleanup of the vineyard, to encourage the natural ecosystem to flourish and prevent soil erosion. Traditionally farmers would leave soil escarpments between vines but now all farmers are encouraged to plant grass which limits soil erosion, the transfer of pollutants and gives a natural habitat for animals. This practice has achieved on average 95% compliance with farmers since it can be implemented with relative ease. The consequential change in the landscape is the biggest evidence of the progress of 'Viticulture Raisonnée' in Champagne.

The use of herbicide and fertilisers on the soil and vine cannot be as easily surmised. Farmers have been encouraged to spread herbicide under the vine (to limit the impact on grape material) or mechanically harvest the unwanted vegetal matter from under the vine. The amount of fertiliser used is reduced through analysing the soil's needs and treating the soil according to the deficiencies found. There is good evidence that the number of treatments against common pests such as mildew and oidium are lessening but patterns are dependent on the conditions each year. However farmers are also encouraged to use a certified list of less toxic chemicals when necessary.

A special technique is encouraged in the place of insecticides called 'sexual confusion'. Over years of intensive use of insecticides on farms, bugs were becoming increasingly resistant and farmers were resorting to using up to three different treatments to counter the pests. These treatments even began to kill off natural predators that may have also helped counter the problems. Therefore an environmentally friendly and effective device serves several purposes. It is attached to the vine and disperses female hormones into the atmosphere that should confuse and deter potential predators, such as red and yellow spider mites. This has met with varying levels of compliance because many still believe traditional insecticides are more effective.

Other traditional vineyard practices have been banned for their polluting effects. A good example is the use of 'smudge pots' to protect against spring frosts. The smoke given off by gas or fuel flamed pots was polluting. Therefore other techniques are now recommended such as air circulation, aspersion or electric heaters.

Finally there is the management and reduction of waste materials. One of the biggest environmental threats from grape growing is the pollution of water, first from chemicals washed off vines and also that from the cellar processes. With less chemicals used in the vineyard this should naturally improve but growers are also encouraged to treat their waste water or dispose of it responsibly. The level of waste material can also be reduced by recycling material or good stock management. Growers are asked to monitor and record their waste as part of the process to encourage improved waste management. This is an area that the CIVC noted as needing most improvement in their five-year report in 2004. At that time only 84% of growers declared and validated their waste.

Unlike organic farming, where each participant either passes or fails their organic certification, 'Viticulture Raisonnée' farmers must conform to basic legal requirements but then are rated on a scale of 0-100% compliance. Each farmer must submit detailed 'memoires' or reports to Magister after every 'intervention' or treatment to their vineyard. This enables the CIVC to monitor their progress in implementing 'Viticulture Raisonnée' and isolate areas for improvement. All Grand Marque Champagne houses are currently rated between 80-100% compliance and view themselves as setting an example for all other growers in the region. Despite the support from CIVC the aspect that often prevents higher compliance from other growers is the financial impact of any necessary change.

So why did the Champagne community decide to develop 'Viticulture Raisonnée' rather than biodynamic or organic farming which is more readily recognised by the consumer? The probable reason is that due to the marginal climate and thinness of top soil in this region there is a necessity for at least some intervention to achieve successful grape cultivation. The main difference between these other 'eco-friendly' practices and 'Viticulture Raisonnée' is that chemicals can be used within 'Viticulture Raisonnée' although to a limited degree. But you could also argue that although organic production guarantees the grape quality it doesn't focus on vineyard practices such as waste management which will have a greater long-term impact on the ecosystem.

And how does Champagne compare to the rest of France or the world in its practice of sustainable agriculture? Although France is the most progressed of European communities in organic winemaking, there is no other appellation that has come together as a cohesive force for biodynamic, organic or 'Viticulture Raisonnée' farming. Probably the closest comparison is in New Zealand where an organisation called 'Sustainable Winegrowing New Zealand' was set up by a voluntary group of wine makers in 1995 and now has set up a similar "best practice" and audit model to Champagne. The ISO 14001 "environmental Standard" has also been set up as an international accreditation that can be achieved via proof of good practice. Although at the moment this has only a

minority following, some notable members are Chateau Pichon Longueville and Chateau Pommery.

It seems then, that Champagne is at the forefront of this new movement. There is still progress to be made to ensure consistency in compliance but the foundations have been set. The long-term benefits will be two fold; in the face of increasing consumer interest in environmental issues, Champagne makers can be assured they will be seen in a positive light. But more importantly years of intensive farming was threatening the actual quality of the final product, and by bringing the ecosystem back into harmony (with less use of chemicals) this situation should be reversed. In many ways it makes sense that Champagne has set this standard, as a premium product it must be especially protective of its quality or the consumer will soon look to cheaper alternatives.

Emma Dawson

Advanced Certificate – Champagne Scholarship

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