Reassuring winegrowers and consumers about the quality of French wine
Winemaking is increasingly subject to health and environmental regulations, many of which relate to the products used to protect the vines from pests and diseases. Since their careful use is essential to produce grapes of high quality and good taste, one of the main objectives of this project was to promote good practices and proper use of plant protection solutions to winegrowers in the Gard region. A second important objective was to balance recent media coverage on the potential risks to wine drinkers.

Wine grapes are one of France’s main crops, grown on 800,000 hectares. French wine production usually reaches 50 million hectoliters and represents around 25-30% of the country’s overall agricultural output in value terms. Above and beyond these figures, French wine is a source of genuine national pride, representing a key part of French culture and the French way of life. Moreover, wine consumption is not only linked to pleasure but also to health, since wine in small amounts is being discussed as having the potential to lower cardiovascular disease risks. However, some recent controversial publications around the quality of wine created huge concerns in France. As a result, confidence in the French wine industry might have been jeopardized.

The wine-industry stakeholders needed to reassure the world of French wine by analyzing samples and publishing the results. So a harvest and residue analysis study funded by the Conseil Général du Gard was initiated in 2007. In 2008, in order to broaden the scope of the study, the Gard Chamber of Agriculture approached Bayer, with whom a good relationship had been built up over many years through exchanges on technical issues. Bayer decided to conduct the study for the 2008, 2009 and 2010 vintages because of the unique way this study links the traceability of plant protection products application in the field to residue analysis results.
The Chamber of Agriculture in the Gard region represents the interests of the winegrowers in this part of South East France and also takes on an advisory role in issues such as residues of plant protection products and Maximum Residue Levels (MRLs).

Winegrowers cannot be fully aware of plant protection product regulations, risk evaluation for consumers, how to interpret residue results and where to find relevant and correct information on European MRLs. However, they are requested to provide answers to the inquiry of their clients, worried by these controversial publications.

Bayer CropScience France supported the Chamber of Agriculture and the winegrowers through the choice of certified laboratories for residue analysis, defining the relevant substances to be analyzed and interpreting the analysis results. In addition, Bayer specialists provided training on relevant topics.

Who is involved

From left to right:
Jacques Oustric, Vineyard Team Manager of Chamber of Agriculture of Gard
Patrick Compan, winegrower and President of Wine Cooperative
Blandine Broquedis, Vineyard Advisor of Chamber of Agriculture of Gard
Sandrine Bonnand, Sustainable Agriculture Engineer of Bayer CropScience France
Laure Delcher, Food Chain Manager of Bayer CropScience France
Claude Rivier, winegrower, Vice President of Chamber of Agriculture of Gard
The confidence-building solution

The Chamber of Agriculture and Bayer CropScience combined their skills to create a common database that allowed the results of residue analyses and the routes taken by harvested grapes to be linked. Traceability practices in the vineyards and wineries provide a relevant and objective interpretation of the residue analyses of the wine studies.

A four-year study was conducted on 151 wines:
• Four vintages, 2007 to 2010, including two years of severe disease pressures (2008 & 2009)
• All categories of wines from the Gard region represented: white, rosé and red; without IG (indication géographique), with IGP (indication géographique protégée) and AOP (appellation d’origine protégée)
• Independent growers and cooperatives
• Various crop routes: Conventional and organic viniculture
• Independent analysis by accredited laboratories

All the active substances from the fungicides, insecticides and herbicides registered for wine grapes were covered by the residue analysis study. For the 2010 vintage Bayer developed a specific treatment program to ensure the optimum use of its plant protection products.

Both Bayer CropScience and the Gard Chamber of Agriculture committed to communicate details about Bayer portfolio active substances to winegrowers. Bayer also trained growers involved in the study and its partners from the Chamber of Agriculture on registration regulations, how to determine MRLs, consumer risk assessment and safety margins, plant protection residue analyses (including residue methods) and the assessment of residue data.
What we achieved

In four vintages with different parasitic pressures, the crop protection strategies which were implemented safeguarded the quality of the harvest.

The results obtained from the 151 wines from four vintages revealed that active ingredients were quantifiable in only 3% of the 7,384 wine analyses. Since the active ingredients are subject to different MRLs, these values were converted into percentage MRL figures. Even where the active substances were quantifiable, their residue levels were well below MRLs with a wide margin of safety for the consumer.

Thanks to this unique study, it has been possible to link the active ingredients applied to the grapes in a vineyard with the residue levels observed. The technical staff at the Chamber of Agriculture and the winegrowers in the Gard region were reassured by the results and decided to communicate them in a brochure. Jacques Outstric and Blandine Broquedis from the Gard Chamber of Agriculture claimed: “We appreciated working with Bayer thanks to the transparency and scientific exchanges, quality, speed of reaction and good relationships.”

Next steps

This Food Chain Partnership is being extended to include the impact of plant protection products on the environment, and in particular water. This involves collaboration with a research institute and the Water Agency.
Consumers are becoming increasingly conscious of the need for healthy nutrition. Food Chain Partnerships help to supply consumers with high-quality fresh produce, which forms the basis of a healthy diet. But such partnerships can only succeed if they involve every player in the food chain – from the farmer and processor to the exporter or importer and retailer. Bayer CropScience has the global experience and cutting-edge expertise to create a successful partnership at every level.