

Topsy-turvy wine weather makes grape sorters shine

October 25 2011, by Suzanne Mustacich

A topsy-turvy growing season, which zigzagged from drought to hail to heat wave, produced a distressingly mixed crop in Bordeaux this year -- but gave optical grape sorters a chance to shine.

As oenologists deepen their understanding of how the components in grape skins, pips and juices influence the aromas and taste in the glass, they've become increasingly serious about sorting.

It's no longer a question of simply removing [snails](#), stems, leaves and the odd rotten cluster.

"At the end of June, we had two days at over 40 degrees that led to burns on the clusters," said Fabien Teitgen, technical director at Chateau Smith Haut-Lafitte. "We were finding pink or green grapes that absolutely needed weeding out, or they would have caused [bitterness](#) and green, dry tannins."

"In a complicated vintage like 2011, a machine is imperative," he said.

The frozen vegetable and coffee bean industries have used optical sorters for many years, but it wasn't until 2008 that the prototypes for grape sorting first appeared in Bordeaux's vineyards.

"It's an undeniable contribution to the regularity and quality of the sorting," Teitgen said.

Seated at a control panel, Teitgen programmed the sorter software to select his ideal [grape](#), glanced at the reject bin to make sure good grapes weren't being lost, and scrutinised the selected berries for consistency.

Smith Haut-Lafitte, which belongs to the Graves wine appellation, tested the prototype in 2008 and bought the first commercial model the following year. More and more chateaux are following suit.

The optical sorter works on a conveyor belt system. After the grapes have been separated from stems and MOG -- matter other than grapes -- they arrive on a moving surface made of parallel cords that line up the berries for the optical "eye".

As they reach the end of the table, the sorter photographs each berry -- and any one that does not fit the winegrower's desired colour and shape is ejected by powerful jets into a reject bin.

The sorter also made it easier to bring in the harvest quickly.

"We went from 24 to four people at the sorting table, plus it goes a lot faster," said Teitgen, whose team of 120 pickers brought in four to five tonnes per day during the harvest, or 30 tonnes in all.

"By hand we can sort one tonne per hour. The machine can do up to eight tonnes."

Currently the benefits for winegrowers come at a price. One machine costs nearly 150,000 euros (200,000 dollars) or rents out for 3,000 euros a day.

And for now the machine's flow rate is not enough to handle the quantities of grapes crushed by the region's [wine](#) cooperatives.

But Bernard Farges, the head of the Bordeaux appellation whose winegrowers produce more than 400 million modestly priced bottles a year, predicts that optical sorters will have a major impact in the years to come.

"Sorting the crop, not just separating impurities from the grapes, but making a selection between the berries, will bring considerable innovation in cellars over the next decade," he said.

Farges said he eventually expects to see sorters tailored for small vineyards arriving on the market, adding that until then winegrowers will group together to use the tool.

"Thirty years ago, when I was a young boy, the first mechanical harvesters arrived but they were only suited to certain estates," he said. "Only the great chateaux had temperature-controlled vats; now practically all the cellars have temperature control."

Despite the prospect of fewer jobs at the sorting table, the roll-out of the new technology has so far gone smoothly.

"So far we have not seen anyone demonstrating in the streets of Bordeaux against optical sorters," Farges said.

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