

# Flushed with success

## Tom Stevenson



In March 2017, I visited the Ferrari winery in Trento, where I explained to Marcello Lunelli why the holy grail for all serious sparkling-wine producers should be to achieve magnum quality in 75cl bottles.

One year earlier, Matteo Lunelli, the CEO of Ferrari, had kindly agreed for me to taste side by side both bottles and magnums of the entire current Ferrari range plus bottles and magnums of the “freshest-oldest” vintages. As I later told Marcello, what impressed me most about Ferrari was that virtually every wine in the lineup had an exact counterpart in magnum. Marcello is perhaps one of the least-known members of the Lunelli family, but as vice president in charge of production and enology, he is without doubt one of the most important. I told him that after the tasting with Matteo I had declared almost every 75cl bottle dead, dying, or at best in decline, whereas virtually all the magnums were superbly fresh, and a few were simply stunning.

When tasting a large number of sparkling wines in both bottle and magnum, it becomes obvious that there are examples where the gap in quality is disproportionately large. It should always be a significant difference, but not to the point where the magnum is gold-medal potential yet the 75cl is not even worthy of a commendation or low-level bronze. When disproportionate quality differences occur, they are usually expressed as excessive oxidative character, which coarsens the aromatics and strips the fruit. One of the causes could be bottle manufacture. For example, the quality tolerance of bottle necks sold by some Italian bottle manufacturers is 0.8mm compared to just 0.3mm for Champagne bottle manufacturers. Sparkling-wine magnums are not always readily available locally, so a producer who buys his 75cl bottles locally will buy magnums from Champagne. His 75cl requirements are always, of course, much greater than his magnum needs, so without realizing

there is any compromise in quality, it makes sense to purchase much greater volumes of 75cl bottles at a much cheaper price from local manufacturers.

I am sure that not all Italian manufacturers are equally guilty of unacceptably high tolerances and that similar levels or worse can be found at bottle manufacturers in other countries, but the Italian example was the specific result of investigations into the disproportionately large quality differences between magnums and bottles of certain Franciacorta producers.

Not all Franciacorta producers, of course, and I imagine that the same applies to some Trentodoc producers and those elsewhere around the world. I'm not trying to name names or point fingers. I'm just exploring one cause of disproportionate difference in the quality of magnums and bottles of the same wine.

Providing that producers with disproportionate differences use a 3mm rather than 30mm cork, and assuming all other things are equal (disgorgement, sulfur regime, and so on), the most obvious cause must be neck variation, and the only two solutions are either to buy 75cl bottles from Champagne or to put pressure on local manufacturers to tighten up their tolerance level (as has been done in Australia, for example).

### Achieving the new holy grail

Once any disparity in bottle manufacture has been addressed and best-practice measures deployed to ensure optimum consistency—such as jetting (which Ferrari has been doing for 12 years, long before most in Champagne had even heard of it) and using Diam Mytik corks—the producer will know the true magnum effect on his own wines and can then work methodically toward achieving magnum quality in a 75cl bottle.

How? By flushing 75cl bottles with nitrogen, with the objective of leaving half the normal headspace of air to replicate a magnum's ratio of oxygen to

wine after corking. Sitting in Marcello's office, I felt quite pleased with myself. The new holy grail seemed such an obvious idea, just as how to achieve it was, and yet no one had tried flushing prior to bottling for the second fermentation, as far as I knew.

Actually, it turned out that I knew nothing! In June 2018, while visiting Nyetimber's new state-of-the-art-and-beyond pressing facility, I discovered that Cherie Spriggs and Brad Greatrix had been nitrogen-flushing across the entire range and in all bottle formats since the 2011-based bottling in spring of 2012. They were not consciously trying to replicate the magnum effect in 75cl bottles, just looking at the simplest way to eliminate as much headspace oxygen as possible for fresher results.

It may well be, however, that they were inadvertently replicating the magnum effect to some extent, because they were flushing a 75cl bottle with 75cl of nitrogen, and according to Virginia Tech's Bruce Zoecklein, to reduce oxygen from atmospheric levels to less than one percent requires flushing with 3.25 times the volume of nitrogen, so it takes 243.75cl of nitrogen (75 x 3.25) to flush a 75cl bottle as thoroughly as possible. More than this, in fact, because the internal capacity of a 75cl bottle with its headspace and the volume of neck that will be occupied by a cork is, of course, greater than 75cl.

Taking Nyetimber's experience as a starting point for my holy grail, I would:

- Try flushing with different ratios between 1:1 and 3.25:1.
- Try flushing with another inert gas. Since air is 78 percent nitrogen, and nitrogen is lighter than the air it is trying to displace, why not try argon? It is more expensive but also heavier.
- If it is impossible or too difficult to flush to leave only half the normal headspace of air, try flushing 3.25:1 and oxygenating the wine immediately prior to bottling. ■