

CHAMPAGNE DOSAGE TRIAL (PART 1) SWEET TRUTH?

Tom Stevenson introduces the first of two unique tastings that will track over time the development of 24 different Champagnes, each dosaged at four different levels: 0g, 3g, 6g, and 9g. Embarking on the project with him were **Essi Avellan MW** and **Simon Field MW**

By 2009, over a period of almost 30 years, I had tasted more than 45,000 Champagnes and other sparkling wines. One of the conclusions I had drawn was that those with less than 6g of residual sugar had not aged well. Some low- or no-dosage Champagnes might taste bright and expressive when launched, seeming to promise years of life ahead, only to fall over months later. A few specialists, including Terry Theise, noticed this phenomenon, but for most in the trade, once a shipment has been sold, the tendency is to move on, and seldom is there an opportunity to follow how a particular disgorgement has evolved since its release.

In his 2014 Estate Selections catalog, Terry Theise wrote, “Tom Stevenson recently published an article in *The World of Fine Wine* in which he said—someone finally said—that Champagnes with less than 6 grams per liter wouldn’t age well.”

This experience led me to start off my very first *A la volée* column with: “I would like to place my first *volée* clean across the bows of those Champagne producers who use less than 6 grams of residual sugar in any of their cuvées.” When that column was published in 2009, Champagne had just undergone no fewer than three August harvests within a ten-year period, and climate change was on everyone’s lips. The mean temperature for Champagne’s growing season used to average 57.7°F (14.3°C) in the 1950s–80s but jumped to 59°F (15°C) in the 1990s and to 61.9°F (16.6°C) in the 2000s. It is this

increasingly greater summation of heat that has brought the harvest forward when the vagaries of annual climatic conditions permit. In a classic September harvest, Champagne grapes benefit from a diurnal difference of 18–27°F (10–15°C), but when picked in August, the diurnal difference is only 9°F (5°C) and acidity levels plummet.

Known unknowns

The widespread knee-jerk reaction to this has been to reduce dosage levels, and the downward trend continues to this day. However, no one—neither the Comité Interprofessionnel du Vin de Champagne, nor individual producers—has tested the effect of lowering dosage on the longevity of Champagne. When the big difference between Champagne and other sparkling wines has been Champagne’s extraordinary longevity, and just at the moment that other sparkling wines are beginning to close that gap, doing anything that might endanger that advantage without bothering to do research is irresponsible. Premature oxidation is widely regarded as an increasingly serious phenomenon in Champagne today—the equivalent to Burgundy’s “premox” problem—but I surely could not be the only person to notice a correlation between low-/no-dosage and the increase in oxidative/aldehydic Champagnes.

It has nothing to do with any preservative effect—because that is not a factor even at sugar levels found in demi-sec, let alone brut—so I asked Bertrand Robillard, one of Champagne’s

most experienced and widely published chemists. He told me he had a similar feeling, elaborating, “A lot of people who make a low-dosage or no-dosage Champagne do not add SO₂ at the time of disgorgement, and these wines show a high oxidability level, [and yes], sugar is a good compound for screening some aromas.”

Science and sugar

Although low/no SO₂ is without doubt the major culprit in Champagne’s burgeoning premature oxidation crisis—particularly when SO₂ is not added at the time of disgorgement—the question of whether sugar in isolation plays any role remains untested and therefore unknown. So, what hard science is there at least to support the possibility?

Aromatic screening (as mentioned by Robillard)

We know that the presence of one substance can suppress or accentuate that of another; and within the vast matrix of volatile compounds found in wine, the number of possible interplays must be close to infinite. *Volatile Flavoring Substances in Foodstuffs* (Hans Gerhard Maier, 1970) establishes the theory that sugar suppresses acetaldehyde by increasing its vapor pressure, but this has yet to be followed up by anyone researching sparkling wine.

The SO₂ reservoir effect

Outside academic circles, it is often said