



Size matters

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I suppose the most famous example of size making a difference was in Jonathan Swift's novel *Gulliver's Travels*. In the 'Voyage to Lilliput' the protagonist describes his extinction of the fire in the palace of the Emperor and Empress. In the Wordsworth Editions [1] he says: 'The case seemed wholly desperate and deplorable; and this magnificent palace would have infallibly been burnt down to the ground, if, by a presence of mind, unusual to me, I had not suddenly thought of an expedient. I had the evening before drunk plentifully of a delicious wine, called Glimigrim, which is very diuretic. By the luckiest chance in the world, I had not discharged myself of any of it. The heat I had contracted by coming very near the flames, and by my labouring to quench them, made the wine begin to operate my urine; which I voided in such quantity, and applied so well to the proper places, that in three minutes the fire was wholly extinguished...'. The Empress was not impressed however as the passing of urine was strictly forbidden in the Imperial Palace.

Interpreted by many as a children's book, *Gulliver's Travels* is rather a vitriolic political attack on the British Establishment and some commentators believe it was a veiled attack on Robert Walpole (1676–1745) the first British Prime Minister and a Whig.

Does size matter in Haematopoietic Cell Transplantation (HCT)? Apparently, it does. It would seem to be intuitive that the more often you do something the better you become at it (yes, I know what you're thinking). In the recent edition of the EBMT handbook [2] Rasheed et al. say: 'However to ensure continuing proficiency ...programmes performing both allogeneic and autologous transplantation should perform a minimum of ten (10) of each kind per annum'. Also, in 2019 Majhail et al. [3] in a survey of adult HCT

centers in the United States reporting data to the CIBMTR (2008–2012) found that high volume centers (>40 allo HCTs per year) were associated with a favourable 1-year survival compared with low volume centers (<40 allo HCTs per year).

Another area of medicine where size matters in terms of the number of procedures carried out per year, is cardio-thoracic surgery. A position statement by the European Association for Cardio-Thoracic Surgery in 2016 [4] indicated that specialised cardiac surgical units should carry out a minimum of 500 cardiac surgical procedures per year or at least 70 cardiac surgical procedures per cardiac surgeon per year in order to maintain sufficient experience and satisfactory clinical outcomes. They also should provide continuous 24 h/7-day week surgical and cardiological care. The water has been slightly muddied by a paper by Beau-lieu et al. [5] published in January 2020, although the system is different in the United States where hospitals compete for patients compared with the rest of the developed world, they state: *amalgamation of smaller hospitals into larger groups is associated with modest deterioration in patient experiences. These involve small and non-significant changes in readmission and mortality rates, and inconclusive effects on performance on clinical-process measures.*

Does size matter in wine making? It probably does. Mass production of wine is associated with practises that many wine drinkers abhor. Mechanical harvesting (Fig. 1) is used by most producers of large quantities of wine whereas hand harvesting is favoured by smaller producers (Fig. 2). There are arguments in favour of both types of harvesting and a lot may depend on the consumer's perception of the quality of the wine. Of course, hand harvesting depends eventually, on the skill and training of the harvesters. In theory, well trained harvesters can avoid picking rotten or unripe grapes but this depends on their expertise.

In Tuscany, where I live for about half of the year, I favour small producers of <100,000 bottles per year and some as little as 20,000 bottles. Larger producers may bottle many millions per year. Large producers strive for a

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Fig. 1 Mechanical harvesting.



Fig. 2 Author and Piero Lanza in Poggerino, Tuscany, where everything is hand harvested. Photograph by Brenda Moore-McCann.

consistency in taste from vintage to vintage whereas small producers may vary their taste from year to year. Some of us think that this variation is one of the charming things about wine drinking.

The size of the vineyard is less likely to influence the use of sugar than the climate.

Chaptalization or the addition of sugar to the fermenting grape juice to increase the alcohol content has been in use for many centuries. It is commonly practised in Northern Europe but much less frequently in Southern countries. Chaptalization is used in the making of sparkling wine in England, which is gradually becoming a significant player in the world market for sparkling wine. Sugar is added

during alcoholic fermentation, during secondary fermentation in the bottle and later to balance acidity (personal communication from Steven Spurrier). Perhaps with global warming chaptalization (enrichment is the official EU term) will become less common?

One habit that is generally frowned upon is the addition of oak chips to wine to impart an ‘oaky’ taste. This is considerably cheaper than using oak barrels (American or French) although it may produce an ‘oaky’ taste which can be overpowering. This technique is often favoured by large producers.

Sulphites are another issue for discussion. They occur naturally in wine or may be added. They have been used for hundreds of years as they act as anti-bacterial agents and thus prolong the life of the wine. Higher concentrations of sulphites are used by mass-producers of wine. The recent tendency is to reduce the amount of sulphites added but making wine without any added sulphite is difficult.

So, if you are a transplanter make sure you are doing it frequently enough to maintain your expertise and if you are a wine drinker get to know your favourite vineyards.

Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

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