

# THE GRAPE experiment

From Coravin to vacuum pumps, the world of wine preservation is not short of innovations. But do they work? JACOPO MAZZEO reveals the results of his year-long experiment



In controlled environments, oxygen is wine's best companion; it allows the liquid to age gracefully inside the bottle and helps release wine's aromas when decanted. But leave the liquid in contact with the air too long and the oxygen will slowly deteriorate aromas and flavours, as well as affect texture.

This means that once opened, a bottle needs to be consumed quickly before it spoils. Bad news for the on-trade. With people drinking less, but trading up in quality, a good by-the-glass programme can make the difference between a lucrative sale and a jug of tap water.

Today, plenty of devices claim they can keep your wine fresh for longer once opened, which would allow a venue to increase its by-the-glass offer. However, are they all as effective as they claim to be? And most importantly, are they suitable for a restaurant, bar or pub environment?

To answer these questions, we put a diverse range of some of the most popular preservation systems for both still and sparkling wine to the test, in a trial that took – no shirking – nearly a year to complete.

## CRITERIA

The purpose of the trial was to test the systems' suitability for use in a professional environment.

Consequently, wines were deemed unfit for service once showing any noticeable change, regardless of their suitability for personal use.

To make sure the experiment's results were empirically meaningful, each system was tested on a range of different wines. During the trial, all wines were stored at a cool room temperature.

Different samples of the same wine were always tested side-by-side on the same day.

## CORAVIN MODEL TWO

**How it works** A one-piece device that works by inserting a needle into the cork to inject argon gas (via a cartridge) into the bottle. The gas pressure pushes the wine out through the needle, preventing any oxygen from entering the bottle.

Once the needle is removed, the cork springs back into place, thus resealing the bottle as though it was never opened. The manufacturer claims that tests have shown wines can be successfully preserved for up to 13 years.

**Suitable for** Any restaurant, gastropubs with serious wine programmes or higher-end bars with a good fortified-wine offer.

**Suggested for** Short- to very long-term preservation, up to several months.

**Verdict** Overall, the system was very reliable for long-term preservation. Most wines are still in fit-for-service condition after nine months from the first pour, with only one wine now appearing slightly developed. This, however, is probably due to the cork, which struggled to spring back into position after each piercing.

**Comments** If used appropriately, Coravin is the best system for long-term preservation; its use would benefit any sizeable wine list. It's relatively expensive, yet can be used on multiple bottles. On the other hand, capsules do run out quite





quickly, therefore their cost needs to be accounted for when pricing the wine.

It requires high maintenance and good staff training as improper use can seriously damage the device. For instance, much care must be taken when inserting the needle, which bends easily if used on particularly tight corks.

Once poured, the wine displays a certain haziness that dissipates in under a minute, an element that needs to be discussed with the guest unless enough time has passed since pouring.

Coravin is supposed to work on all corks apart from plastic ones, however, during the experiment some of the corks did not quickly spring back into position, which meant that the liquid kept leaking once the bottle was put back on its side for storage. When asked, a spokesperson for Coravin commented: 'In theory the product should work on all cork types. That being said, the Coravin works only as well as the cork that is closing the bottle. If the cork in the bottle is of poor quality it is likely that the cork will not effectively protect the wine.'

Special thin needles are available for use on fragile corks.

*Coravin Model Two: RRP £249; two-capsule pack: RRP £15.95; spare needle: RRP £23.95, Birchgrove Products, birchgrove.co.uk*

### VACU VIN WINE SAVER

**How it works** A vacuum pump extracts air from the opened bottle once this has been resealed with the appropriate,

reusable stopper. The manufacturer claims it keeps the wine fresh for up to two weeks.

**Suitable for** Any venue.

**Suggested for** Short-term preservation up to four days.

**Verdict** All wines kept very well up until the fourth day when the bottles were left untouched after the first reseal.

However, beyond the fourth day, most showed some development, meaning the system would probably be suitable for home use, but unfit for service in a professional environment.

**Comments** Overall, Vacu Vin deserves a thumbs-up. Its price makes it accessible to any venue and it's also very easy to use, so it requires little effort in staff training. It can be employed for low-turnover by-the-glass wines as well as to store unfinished bottles in the case of returning guests (for instance, in hotel restaurants with the guest staying overnight). It fits most necks, including those of screwcap bottles, it's very low maintenance and your venue won't incur any extra expense unless worn-out stoppers need replacing. Furthermore, with the right amount of stoppers, the same device can be used on multiple bottles.

*Vacu Vin Wine Saver with one stopper:*

**TOP LEFT: CORAVIN MODEL TWO. CENTER: VACU VIN WINE SAVER. TOP RIGHT: PULLTEXT ANTIOX**

*RRP £8.99; two-stopper pack RRP £3.50, Birchgrove Products, birchgrove.co.uk*

### PULLTEXT ANTIOX

**How it works** Antiox is simply a stopper with an active carbon filter inside that interrupts oxygen interacting with the wine. The manufacturer claims that it keeps the wine fresh for up to 10 days, with the system lasting for approximately 1,000 uses.

**Suitable for** Any venue.

**Suggested for** Short-term preservation up to four days.

**Verdict** All wines kept very well up until the fourth to fifth day if the bottle was left untouched once resealed the first time. After the fourth day, the results were mixed. Some wines showed marked development at around the seventh day, while others appeared fit for home consumption well beyond the 10-day threshold indicated by the manufacturer. Different sulphur levels might explain the wines' behaviour.

**Comments** Antiox's main positive is that it's brainlessly easy to use. On the



other hand, you will need a single AntiOx for each bottle, which makes it relatively expensive compared to other short-term systems such as Vacu Vin's Wine Saver and Private Preserve (below). Furthermore, it's basically impossible to tell when AntiOx needs replacing: with the manufacturer suggesting up to 1,000 uses, are you really going to keep track of it during service? *RRP £15.95, Birchgrove Products, birchgrove.co.uk*

### PRIVATE PRESERVE

**How it works** Private Preserve is a gas canister that replaces the oxygen in the bottle with a mixture of carbon dioxide, nitrogen and argon. The manufacturer claims that wines can be preserved for 'weeks, months or even years'.

**Suitable for** Any venue.

**Suggested for** Short-term preservation of about four days.

**Verdict** All wines kept very well until the fourth day on average, after which they were still suitable for home consumption, but not for service in a professional environment. Around the 10th day, we noticed that the texture of most of the wines appeared affected by the gas, which was fairly evident when comparing Private Preserve samples with the others. Two wines spoiled after 11 days, while the others were still drinkable after over a month.

**Comments** The system is quite easy to use and one canister lasted for nearly the entire experiment. A further positive is that one canister can be used to preserve as many wines as needed, making Private Preserve



a relatively inexpensive solution. The main downside is that the canister itself is so light that it's impossible to know when the gas runs out.

*RRP £17.95, Birchgrove Products, birchgrove.co.uk*

### ZOS HALO PRESERVER

**How it works** ZOS is an oxygen-absorbing stopper that works with cartridges. A light indicator reveals when the device is absorbing oxygen and when the bottle is an oxygen-free environment. The manufacturer claims it keeps the wine fresh for up to eight weeks, with each cartridge lasting for about 15 bottles depending on usage. The device requires batteries for the lights to work.

**Suitable for** Any venue.

**Suggested for** Short-term preservation of about five days.

**Verdict** ZOS yielded the most uniform results. Most wines kept very well till the fourth or fifth day, when slight changes made them fit for private consumption only. Most wines oxidised well before the manufacturer's eight-week threshold. Two were still in good drinking condition by the end of the seventh week.

**Comments** ZOS needs good staff training, as the cartridge runs out quickly if left outside its case even for short periods of time. In fact, although we made sure to always keep it either inside the bottle or inside the case, the cartridges ran out quite quickly. Another downside is the price as ZOS needs batteries too, on top of the cost of cartridges and of the device itself. Although it does work, we see ZOS being more suitable for private use.

*ZOS Halo Preserver: RRP £49.99; two-cartridge pack: RRP £14.99, Birchgrove Products, birchgrove.co.uk*

### PULLTEX CHAMPAGNE

**How it works** Pulltex Champagne is a stopper equipped with a simple mechanical system that pumps oxygen out of the bottle. It doesn't require any cartridge. The



LEFT TO RIGHT:  
PRIVATE PRESERVE,  
ZOS, PULLTEX  
CHAMPAGNE, GENII

manufacturer claims it keeps sparkling wine fresh for up to 10 days.

**Suitable for** Any venue.

**Suggested for** Short-term preservation up to about five days.

**Verdict** Pulltex Champagne performed surprisingly well. Both wines appeared in good condition for the full 10-day period when the bottle was left untouched after the first reseal.

Furthermore, they were fit for private consumption for an additional week. Both wines' aromas and effervescence were slightly altered on the fifth day, if opened and resealed twice in the meantime.

**Comments** Pulltex Champagne is a no brainer; it should be used on any bottle of sparkling wine left open overnight. Your venue will need one stopper for each bottle; however, the system's price is far from prohibitive and it will never run out.

On the downside, it won't fit all bottle shapes and sparkling wine bottles aren't known for being uniform. The manufacturer says the system was made for standard sparkling wine bottles, and should work for Dom Perignon and Laurent Perrier Rosé.

The maximum neck measurement is the diameter of the most narrow part of the stopper, which is 3.3cm.

*RRP £8.50, Birchgrove Products, birchgrove.co.uk*

### GENII

**How it works** Genii is a two-part system that consists of a cap and a carbonating device. Once the bottle has been sealed with the appropriate closure, the carbonator is employed to insert CO<sub>2</sub> into the bottle. The valve in the closure shuts off



automatically when the pre-set pressure of 50psi is reached inside the bottle. The system needs CO2 cartridges, which are expected to last for around 10 to 12 bottles. The manufacturer claims that Genii keeps the wine fresh for four weeks after opening.

**Suitable for** Any venue, however, given the cost, it's only advisable for restaurants and high-end bars with a premium sparkling wine offer.

**Suggested for** Medium-term preservation of about five days.

**Verdict** Both wines kept very well till the 10th day. Left unopened for a few days, however, the subsequent pour displayed a marked CO2 smell, similar to artificially carbonated sparkling water, although this disappeared after a few seconds.

After the second week, the CO2 had been mildly integrated into the wines, altering their texture. Carbonation was still present well beyond the four weeks, by which time, however, the aromas appeared significantly tuned down or developed.

**Comments** The four-week threshold is advisable only for personal consumption, however, the system works remarkably well for the 10-day period. This is enough to make it worthwhile for any high-end restaurant and bar willing to offer super-premium sparkling wine by the glass.

The real downside is that the system is a little bulky and can be noisy, especially when pumping CO2 into the bottle, so needs to be used away from guests.

The sample caps don't fit certain bottles such as Gosset, Laurent Perrier NV Rosé and Charles Heidsieck Brut Réserve NV (though it works on all other Charles Heidsieck). However, the manufacturer informed us it is testing a cap to fit these and other odd shapes. 🍷

Genii (three caps and carbonator): RRP £295; 10-cartridge pack: RRP £95; spare cap: RRP £65; spare carbonator: RRP £125, Genii, geniipreservation.com



## THE EXPERIMENT'S GUINEA PIG WINES

### SANTO ISIDRO DE PEGÔES CINTILA WHITE, PENÍNSULA DE SETÚBAL, PORTUGAL

A crisp by the glass white with soft, medium acidity and clean palate. Showed unexpected complexity, with lemon, green apple and subtle sage and bay leaf on the nose.

POA, Hallgarten & Novum, [hnwines.co.uk](http://hnwines.co.uk)

● Used to test Vacu Vin, Antiox, Private Preserve, Zos

### INAMA CAMPO DEI TOVI SOAVE CLASSICO 2017, VENETO, ITALY

A mineral-driven Soave made with hand-picked fruit from 30yo vines. The nose is elegant, saline, with notes of lemon, grapefruit, chamomile, orange blossom and elderflower. On the palate, it's focused, bone dry, with a touch of almond on the finish.

£14.06, Winetraders, [winetraders.eu](http://winetraders.eu)

● Used to test Coravin, Vacu Vin, Antiox, Private Preserve, Zos

### ISIDRO MILAGRO MARCELINO RIOJA CRIANZA 2015, SPAIN

A very classic Rioja crianza with soft palate, ripe cherry and strawberry aromas, well-integrated vanilla and toasted flavours and just a hint of oxidative character. It spends 18 months in medium-toast American and French barriques before bottling.

£7.50, Lanchester Wines, [lanchesterwines.co.uk](http://lanchesterwines.co.uk)

● Used to test Coravin, Vacu-Vin, Antiox, Private Preserve, Zos

### CALERA CENTRAL COAST PINOT NOIR 2017, CALIFORNIA, USA

A bright New World Pinot aged in French oak. The nose shows fragrant dark cherries, blackberries and strawberries, plus a touch

of smoke and toast. Very smooth tannins and a warming, creamy palate.

£23.55, Top Selection, [topselection.co.uk](http://topselection.co.uk)

● Used to test Coravin, Vacu-Vin, Antiox, Private Preserve, Zos

### FAIRVIEW LA BERYL BLANC, PAARL, SOUTH AFRICA

Ripe fruit notes of lychee, passion fruit, gooseberry and apricot, dried red apple and a citrus touch. On the palate, it's silky, unctuous, with added complexity from flavours of kerosene, clove and jasmine.

£13.95/50cl, Liberty Wines, [libertywines.co.uk](http://libertywines.co.uk)

● Used to test Coravin, Vacu-Vin, Antiox, Private Preserve, Zos

### CHAMPAGNE CASTELNAU BRUT RÉSERVE NV

Toast, lemon peel and bread crust lead the nose of this rich non-vintage champagne. On the palate, it's soft, displaying great depth of flavours. Hints of baked apple and pear on the mid-palate keep things exciting up until the long, bready finish.

POA, Castelnau Wine Agencies, [castelnau.co.uk](http://castelnau.co.uk)

● Used to test Pulltex Champagne, Genii

### HATTINGLEY VALLEY ROSÉ 2014, HAMPSHIRE, UK

Classy rosé that ages on its lees for 37 months before disgorgement. The nose is of white flowers, lemon, bitter orange and clementine, plus hints of red apple skin, peach and toast. The palate is toasty, unveiling extra layers of lemon peel, breadcrumb, grapefruit and a hint of salinity as it warms up.

£22.10 (2015 vintage), Enotria&Coe, [enotriacoe.com](http://enotriacoe.com)

● Used to test Pulltex Champagne, Genii

