
BARK to BOTTLE

#43 APRIL '20

AMORIM CORK

Latest Study Confirms Negative Carbon Footprint for Amorim Cork Stoppers

Amorim reinforces its sustainability
credentials in its 150th anniversary year



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Latest study confirms negative carbon footprint for Amorim cork stoppers

309g of CO₂ per natural cork stopper
and 562g of CO₂ per sparkling wine stopper

Amorim reinforces its sustainability credentials in its 150th anniversary year.

Safeguarding the planet's biodiversity, combating climate change and fostering sustainability are more important than ever.

Amorim's commitment to sustainability and the circular economy are pillars of its business activity.

Everything begins in the cork oak forest - one of the world's 36 biodiversity hotspots - but the commitment to ensuring sustainability runs throughout the group's business units.

A brand-new study, using a cradle-to-gate methodology, has demonstrated how this commitment to sustainability pays vital dividends in Amorim's core business of providing top quality cork stoppers to the global wine and spirits market.

Amorim's natural cork stoppers and sparkling wine stoppers have a remarkable negative carbon footprint, and the latter have the highest CO₂ retention level in the global stopper industry.

These are some of the conclusions of the study commissioned by Corticeira Amorim and independently conducted by EY consultants in December 2019.

The study measured everything from the forest floor to finished stopper and concluded that cork closures are a major ally in the wine industry's battle to maximise sustainability.

Consumers increasingly valorise products that help protect the planet.

The study confirms that a single natural cork stopper captures up to 309 grams of CO₂, while a sparkling wine stopper - which incorporate two natural cork discs - retains even more - at 562 grams.

This means that cork closures can offset the carbon footprint of glass bottles - which release between 300-500g of CO₂ per 75cl glass bottle, in function of their weight.

This means that cork offers a major advantage to wineries, in their drive to ensure carbon neutrality.

Cork and wine have been natural allies for centuries, precisely because they are natural products and can be harvested without damaging the vine or tree. They preserve vital habitats, local populations and bio-diversity.

This symbiotic relationship is vital to preserving the 5.4 million acres of native cork forests across seven countries in the Western Mediterranean basin.

The study covered different life cycle stages in the cork value chain, including forest management activities, cork treatment stages, including transport from the forest, and stopper production, finishing and packaging.





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For a fair comparison with previous studies, the distribution of the product from Portugal to the UK was also included, together with additional information regarding carbon sequestration from the cork oak forest.

In addition to the negative carbon footprint the study also evaluated the stoppers' overall environmental footprint, using methods aligned with the recommendation from Product Environmental Footprint Category Rules (PEFCR) for still and sparkling wine product environmental footprints (PEF) issued by the European Commission in 2018.

A wide variety of impacts were assessed, including categories such as Climate Change, Ozone Depletion, Human Toxicity, Acidification, Terrestrial, Freshwater and Marine Eutrophication, Water Use and Total Cumulative Energy Demand.

The study's conclusions noted that more efficient and less environmental harmful options of transportation and energy generation are being adopted by Amorim in the treatment and production stages, where renewable energy accounts for more than 50% of energy consumed.

It also stated that the environmental footprint results of Amorim's sparkling cork stoppers have below average environmental impacts compared with the global champagne stopper sector.

Finally, the study also highlighted the differentiation between cork extraction - which doesn't harm the tree - and other forest-based products and concluded: "As the cork oak tree retains carbon for over 100 years, regardless of cork harvesting, cork exploitation supports the maintenance of the ecosystem, thus having a positive contribution to climate regulation."

These results echo the findings from other recent studies such as a September 2018 study produced by PricewaterhouseCoopers for Amorim - which confirmed that Amorim's Neutrocork stopper, which features a uniform-sized micro cork granule composition, retains up to 392g of CO₂ per stopper.

*The study was based on the ISO 14040/44 standards (ISO, 2006), together with guidelines from the International Reference Life Cycle Data System (ILCD) Handbook - General guide for Life Cycle Assessment - Detailed guidance (EC-JRC, 2010).

**The LCA methods used were aligned with the recommendation from Product Environmental Footprint Category Rules (PEFCR) for still and sparkling wine product environmental footprints (PEF) issued by the European Commission in 2018.

Germany's Der Deutsche Weinbau wine magazine reveals that cork stoppers are used to seal 62% of all German red wines and over 60% of German wines priced over €10

Use of plastic stoppers has virtually disappeared – falling from 16% to 2%



The wine magazine, *Der Deutsche Weinbau*, the official organ of the German Viniculture Association (Deutscher Weinbauverband, DWV) and its regional member associations, has released data (for 2009, 2014 and 2018) on the types of stoppers used in over 11,000 German wines presented to Germany's prestigious Meininger Tastings.

The results complement data previously released for 30,000 international wines (see *Bark to Bottle* 42).

The magazine notes that between 2009 and 2018, use of plastic stoppers virtually disappeared - falling from 16% to 2%.

In 2009, plastic stoppers were primarily used in wines priced under €5. Their disappearance has meant that screw caps have recorded some of their biggest growth in this price segment.

Use of screw caps has also risen in the €5-10 price segment, but natural cork continues to be the preferred seal for German wines priced over €10.

Natural cork continues to be the preferred stopper for German red wines – just under 60% of all reds were sealed with natural cork in 2018, compared to just over 70% in 2009, with a further 3% of German red wines sealed with agglomerated cork stoppers.

Der Deutsche Weinbau reveals that use of screw caps has grown primarily in lower price segments, whereas natural cork continues to dominate medium-to-high price segments for German wines.

Natural cork stoppers are used to seal 83% of German wines priced over €25 per bottle and 58% for wines priced between €10 to €25, again with considerably higher proportions for red wines in these price segments.

The percentage of wines sealed with natural cork in the €25+ price segment has remained broadly unchanged since 2009. For the €10-25 price segment use of natural cork has diminished from 78% in 2009 to 60% in 2018.

Underpinning these results is the fact that market research has consistently demonstrated that German wine consumers associate corks with quality wine. For example, research by Tragon Corporation has shown that over 90% of German consumers associate natural cork with high quality wine – one of the highest scores for leading wine consuming markets.

Embracing cork for 150 years

Amorim is celebrating its 150th anniversary as global leader of the cork sector

The Amorim Group is celebrating its 150th anniversary in 2020 with the launch of a new logo and a series of events to mark this historic milestone.

The new logo, designed by renowned Portuguese designer, Eduardo Aires, highlights cork's circular embrace, which underpins Amorim's circular economy philosophy.

Eduardo Aires' previous projects include rebranding of the Municipality of Porto, through launch of the new "Porto." logo.

Amorim's new logo is being applied across all group companies and also includes the development of an original font: Amorim Serif.

Eduardo Aires explains the circular economy philosophy that underpins the new logo: "The 'O' at the centre of the word Amorim represents the embrace of cork around the trunk of the cork oak tree, and through this gesture the care and attention implied by the production and extraction of this raw material. The human dimension, the respect for the terms and conditions of the natural ecosystem, alignment with the global objectives of sustainable development and articulation with the rhythms of the territory are other

meanings that are condensed in this form. Because embracing also means containing, it offers an interpretation of the Amorim logo as a mother brand, which unites an entire universe of different activities, business units and companies. The image is also a letter, and the letter is an image, incorporated within the word, in a minimal condensation operation that achieves maximum effect."

The letter "O" also reminds us of the circular image of a cork stopper that greets us when we prepare to open a bottle of wine.

This element of circularity and the umbilical link to the cork oak tree and to wine stoppers has stood at the heart of the company's evolution over the past 150 years.

Currently managed by the fourth generation of the Amorim family, headed by the CEO, António Rios de Amorim, the group began in 1870 when António Alves Amorim founded a small production unit for Port Wine stoppers in Vila Nova de

Gaia, working with cork extracted in the Douro and Trás-os-Montes regions, in the North of Portugal.

Corticeira Amorim is now Portugal's most international company, with exports representing 93% of sales. It is the leader of the global cork industry, encompassing over 100 companies around the world and sells over 5.5 billion cork stoppers per year.

Corticeira Amorim is divided into five business units, the biggest of which is the Cork Stoppers BU which was responsible for 70.3% of Corticeira Amorim's sales in 2019, followed by the Floor and Wall Coverings BU (13.6% of sales), Composite Cork BU (12.7%), Insulation Cork BU (1.5%) and Raw Materials BU (1.8%).

Corticeira Amorim's sales have almost doubled over the last decade, rising from €415.2 million in 2009 to €781.1 million in 2019. There have been multiple drivers of this growth, including an increase from 3 billion stoppers in the early 2010s to the current level of 5.5 billion stoppers per year.

Amorim's new logo represents a company that has its eyes firmly fixed on the future, while upholding the values and work philosophy that have ensured success over the past 150 years.



COVID-19

Amorim introduces rigorous measures to protect its employees and customers

The ongoing COVID-19 pandemic has led to unprecedented public health measures at a global level, with wide-ranging consequences for people and businesses.

In order to uphold the health and wellbeing of its employees and customers, Amorim has introduced a wide range of rigorous measures that will ensure that the company can provide a secure and effective response.

Things are rapidly changing in this fast-evolving scenario, and there are strong positive signs that coherent measures will help mitigate threats to public health and economic sustainability.

Notwithstanding the fact that the situation across many countries is still very serious, there are important positive signs which reveal surprising resilience across the supply chain.

Producers have also responded to the crisis by donating funds, organising training initiatives and donating alcohol to facilitate the production of hand sanitiser products.

In the wine and spirits sector, many industry tastings and trade shows, such as Prowein, have been cancelled or postponed, but producers are committed to protecting the supply chain – from the harvest to the bottle – and online consumption has recorded a significant spike.

The widespread closure of restaurant and bar establishments as part of the overall containment measures has led to a significant rise in demand for home consumption, purchased via physical stores and on-line.

For example in North America, the alcohol delivery e-commerce platform, Drizly, has

recorded a 300% surge in sales.

Across several large markets, such as the US and UK, many retailers are reporting important wine and spirit sales growth, especially in online markets where some distributors are seeing daily revenues that even outpace sales during the Christmas season.

In California, Governor Newsom agreed with the Wine Institute of California's argument that wineries are an "essential business".

In Italy, the beverage sector is included in an exemption list in the context of the nationwide shutdown and in Australia, there has been an uptick in new orders from China.

In view of these positive market signals and producers' determination to maintain a robust supply chain, Corticeira Amorim has set up a COVID-19 Emergency Group and implemented a Contingency Plan, which includes a series of rigorous health protection and quality control measures:

- Isolation rooms in all premises, to respond to any situations of symptoms of Covid-19.

- Quarantines of employees who have returned from any areas of risk or have had first level indirect contact with anyone with a confirmed infection

- Restriction of visits to and from customers.

- Control of access in entrance gates, with designated areas for external workers (drivers, suppliers).

- Staggered entry and exit of shifts and sectors

- Staggered meal times and closure of coffee areas

- Temperature measurement at the entrance. If a person's temperature is above 37.5°C this implies that the employee /

visitor will not enter, and health protection mechanisms will be activated.

- Reinforced hygiene measures in the workplace

- Increased frequency of cleaning the premises with specific disinfection products.

- Maximum travel restrictions and implementation of teleworking whenever feasible

- Communication campaign, indicating measures for individual self-protection; meetings; awareness and training.

Through these combined procedures, Amorim is confident that it can uphold the health and safety of its employees and customers, while fully preserving the supply chain to the global wine and spirits sector.

This determination is underlined by the group's Chairman and CEO, António Rios de Amorim. "Aware that this is an unprecedented moment, we join the collective effort to contain the COVID-19 pandemic, with responsibility, solidarity and hope, protecting our Employees, their Families, Communities and all our Stakeholders. We may be distant, but we remain united."



Moët Hennessy's highlights cork in its eco-designed booth at Vinexpo Paris

Moët Hennessy - the wine and spirits division of LVMH, the world's leading luxury products group - created a plastic-free booth devoted to Living Soils for Vinexpo Paris, that ran 10-12 February.

Described as a "cocoon" of cork, due to cork's inherent acoustic properties that limit noise pollution, Moët Hennessy's offered a haven of contemplation in the midst of the bustle of Vinexpo Paris.

The booth was resolutely eco-designed and hosted various panels about how to transmit healthier soils to future generations. Everything in the booth was recyclable and bio-based, from floor to ceiling, including specially-designed furniture.

This was the "first time" that Moët Hennessy has explicitly promoted its work to deliver sustainable growth.

The project was designed by Jeanne Dumont, an architect at DLPG, who said she wanted to "play with codes of luxury and naturalness" and added that cork was chosen because it "echoes the cultural universe of wine / viticulture".

The cork was supplied by Amorim, which Dumont says is an emblematic example of circular economy practises: "the cork is taken from sustainably managed forests, from cork oaks in France or Portugal, without having to cut them down".

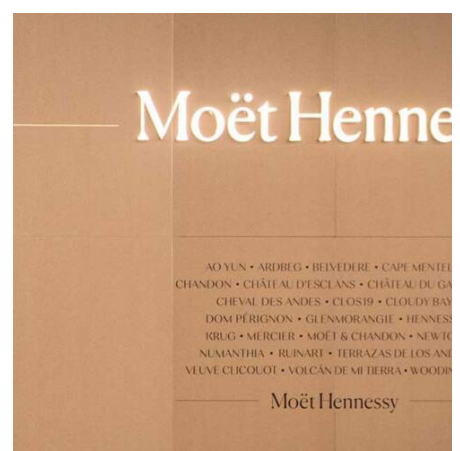
Amorim's Marketing & Communication director, Carlos de Jesus, says that he was delighted with the project: "It is wonderful to have natural cork's sustainability credentials showcased with such amazing design. The feedback here in Paris has been nothing short of remarkable. Our cork is an example of "up-recycling" - it is also used in aeronautics and aerospace."

The other partner for supply of materials for the booth was Taransaud which supplied wooden staves, sourced from PEFC-certified forests.

The staves are used in oak barrels to age wines and spirits.

This combination of cork and wood reflects a centuries-old natural partnership that has played a key role in the ageing and bottling processes of wines and spirits around the world.

The stand contained no plastic or glue with volatile organic compounds (VOCs).



"I only wanted to use materials of great purity", concludes Jeanne Dumont. "I am not an ecological purist: I believe in common sense, in the virtues of short circuits and therefore, my preference goes to local materials, pure, saved to avoid waste, and likely to be ultimately re-used, recycled, and valued to escape landfill".

After the end of Vinexpo Paris, all the materials used in the stand were recycled and given a new life.



City Cortex: the future is now

The need to ensure a healthier planet and confront the challenges posed by climate change are now priorities within the global agenda.

Bringing nature into our cities and ensuring a healthier balance between mankind and nature are increasingly important for human existence.

In this context, Amorim has launched the research programme, City Cortex (city-cortex.com), curated by experimentadesign, that focuses on cork and its sustainability potential for contemporary cities.

Amorim previously worked with experimentadesign - which organises an internationally renowned art and design biennial in Lisbon - on the Materia and Metamorphosis collections.

The programme involves five international architecture and design studios – Diller Scofidio + Renfro, Gabriel Calatrava, Leong Leong, Sagmeister & Walsh and Philippe Starck – who have been invited to develop original cork-based designs, designed to meet the challenges of 21st century urban contexts.

Implementation of projects in various public and semi-public spaces in New York is planned for the second half of 2020 and in 2021.

The philosophy underpinning City Cortex is the idea that the city is a living and dynamic organism that faces many challenges - from mobility to climate change, from comfort to social cohesion, from security to sustainability - and also offers endless possibilities.

Cork, with its excellent sustainability credentials and unmatched capabilities, can make a valuable contribution to building sustainable, creative and inclusive cities.

All participants visited Corticeira Amorim's facilities in 2019, where they had direct experience of cork and gathered precious information, with the chance to discover cork's main characteristics, ranging from thermal and acoustic insulation to elasticity and compressibility, and its diverse uses and applications.

City Cortex will also develop historical research into the use of cork in the USA in the 20th and 21st centuries.

This research dimension will also consider the commercial ties established between the USA and Portugal, in which Corticeira Amorim has always been involved.

The programme was presented in 2019 in Lisbon, in the presence of the US Ambassador to Portugal, George E. Glass, tracing its essential objectives: to help expand the use of a natural and sustainable

material in urban contexts; pave the way towards greater awareness of sustainability issues and development of contemporary urban landscapes; and inspire innovative thinking that will foster new community experiences and interactions with the natural world.

"Throughout our business history we have always been guided by the goal of adding value to cork," explains Cristina Rios de Amorim, board member of Corticeira Amorim. "With City Cortex, we are taking yet another step to broaden the contribution of this unique, natural and sustainable material, whose versatility is capable of surprising some of the brightest minds in the world of contemporary creation."

NDtech Sparkling wins Innovation Award

The world's first 2-disc cork stopper for sparkling wines that delivers non-detectable TCA performance received an SIMEL's Innovation Challenge award.

Launched in mid-2019, the revolutionary NDtech Sparkling stopper won the 2019 innovation award at the prestigious SIMEL trade show in Milan in November – one of the most important technology events for the wine and bottling industry.

The aim of the Innovation Challenge is to promote and disseminate the best technological innovations presented at SIMEL.

NDtech Sparkling – which extends the successful application of NDtech technology to sparkling wine cork stoppers – received the highest distinction.

Combining sustainability, design and an unprecedented level of quality control – each sparkling wine stopper is individually analysed – NDtech Sparkling represents the perfect symbiosis between nature and technology.



Spanish winemaker Alvaro Palacios purchases the world's most expensive natural cork stoppers

Using a natural cork stopper is a must for the world's finest wines.

Leading Spanish winemaker, Alvaro Palacios – whose portfolio of world-renowned wines includes Finca Dofi and L'Ermita – has just purchased the world's most expensive wine stoppers ever sold – at 4 euros each.

The stoppers reflect utmost dedication to quality. They are individually punched from carefully selected top-quality cork planks, individually screened by Amorim's technical experts, in a process that relies on Amorim's 150 years of expertise.

Each cork stopper is then individually screened using Amorim's groundbreaking technology, NDtech.

Alvaro Palacios is a leading pioneer of the Spain's new generation of winemakers. Born into the respected family of Rioja winemakers, Palacios Remondo, he has forged a new path for Spanish wine, which began in the early 1990s though the acquisition of the ancient

vineyards of Priorat, 60 miles from Barcelona, one of Spain's most important wine regions, that was devastated by the Phylloxera epidemic at the end of the 19th century.

The Alvaro Palacios Winery, in Gratallops, is now considered to be one of the world's most prestigious Priorat wineries. For example Spanish wine specialist, John Radford commented: "Les Terrasses is excellent, Finca Dofi is outstanding and L'Ermita is unbelievable".

The stoppers achieve a balance between nature, technology and art and pay testimony to what is fast becoming a true luxury in the 21st century!



Regacork – Amorim’s ground-breaking project enables virgin cork to be harvested earlier

Global demand for cork has been rising over the last decade, in traditional sectors such as cork stoppers and also in a wide variety of new cork applications, ranging from building construction to aerospace.

Corticeira Amorim now sells 5.5 billion cork stoppers per year compared to a little over 3 billion stoppers 10 years ago.

However global cork production has reduced in terms of volume and there are increasing challenges in terms of quality control. This is due to multiple causes, including climate change, attacks by biotic and abiotic agents and certain examples of bad forestry management practices.

Amorim Florestal has decided to develop projects to ensure that cork production meets the rising global demand. Regacork is a key example of this new strategy. The programme is coordinated by Amorim Florestal and the University of Evora. The initiative involves various estates, agricultural companies and research and conservation institutes and is currently

monitoring over 10 experimentation areas, primarily in Portugal’s Alentejo region.

The project aims to stimulate the growth of cork oak trees in intensive plantations and foster their vitality by mitigating hydric stress.

A key element of the project is the use of fertigation, which includes improved irrigation, use of fertilisers, and the addition of water amendments and other water-soluble products into the irrigation system.

The project aims to bring forward the first year of extraction of virgin cork from the current 18-25 years to the new target of 8-12 years. It will thereby also be possible to bring forward the first year of extraction of high-quality amadia cork which can be used for cork stoppers and other cork applications.

The four specific objectives are to:

- Determine scientifically based methods of fertigation of cork oak trees, including a pioneering study in the Herdade do Corunheiro estate, in Coruche,
- Enable earlier harvesting of cork in new

cork oak plantations as a result of fertigation including a pilot trial in the Herdade do Conqueiro estate, in Avis, where it was possible to extract high-quality virgin cork from some cork trees after only 8 years.

- Evaluate the effect of fertigation on the formation, production and quality of cork in plantations of adult cork oak trees or in pre-harvest situations.

- Transfer the technical and scientific knowledge obtained for new cork oak plantations;

It is important to note that the programme does not aim to convert existing cork oak forests into intensive plantations - the knowledge acquired through the project is intended to be used to develop new plantations that can help meet the rising global demand for cork.

Amorim sponsors two prestigious wine awards

Amorim recently sponsored two important wine awards, organised by two leading Portuguese wine magazines - Revista de Vinhos and Revista Grandes Escolhas - in their Best of the Year awards for food and wine categories.

900 guests attended the Revista de Vinhos' gala ceremony, held in the Alfândega do Porto, which also celebrated the wine magazine's 30th anniversary.

Amorim sponsored the "Company of the Year" prize which was awarded to Port wine producer Gran Cruz, owned by the French multinational, La Martiniquaise.

Over the last decade Gran Cruz has refocused its brand positioning including opening of a new vinification centre in Alijó, and has become the world's biggest Port wine exporter, selling 30 million bottles per year in over 50 countries.



In addition to its Port wine activities, Gran Cruz is also expanding its wine tourism activities, including operation of two wine centres - the Espaço Porto Cruz in Vila Nova de Gaia and the Gran Cruz House in Porto's Ribeira district - and the opening a major new wine tourism facility in 2019 - the Ventozelo Hotel & Quinta, in São João

da Pesqueira, in one of the Douro region's biggest and oldest vineyards.

The Revista Grandes Escolhas' Best of the Year awards, held in the Velódromo Nacional, in Sangalhos was also attended by around 900 guests.

Amorim sponsored the "Senhor do Vinho" (Gentleman of Wine) prize that was awarded to Orlando Lourenço, owner of the Caves da Murganheira and Caves Raposeira.

The Caves da Murganheira, founded over 60 years ago, are located in the Távora-Varosa region, on the border between the Douro and Beira regions.

Orlando Lourenço acquired the winery in the 1980s and has transformed it into one of Portugal's leading producers of sparkling wines.

He acquired another major Portuguese producer of sparkling wines, Caves Raposeira, in 2002.

Over 1.8 million bottles of Raposeira and 1.1 million bottles of Murganheira are sold per year.

In the same award ceremony, the sparkling wine, Murganheira Esprit de la Maison 2011, won the Best Sparkling Wine award and was considered to be one of the top 30 wines of the year.

AMORIM CORK



Our bio natural cork stoppers
have the greatest value.

For 150 years, Amorim has been adding value to cork. Today, more than ever, we are adding by subtracting. A single natural wine stopper can retain up to 309 grams of CO₂, often enough to offset the environmental footprint of a glass bottle. Our stoppers achieve the highest bio classification, guaranteeing they are made with truly renewable materials extracted from cork oaks that are never felled. By helping wineries and distilleries become more sustainable, we are placing the highest value on our common future.

