

# A Tool from the Past Illuminates the Future

Winemakers discuss the future of Cabernet Sauvignon and winemaking in a warming climate

Mary Chakeris Jorgensen



ERIC JORGENSEN

(Panel, l to r): Glenn McGourty, viticulture and plant sciences, UC Cooperative Extension; Chris Howell, general manager and winemaker, Cain Vineyards; Leo McCloskey, president, Enologix; David Graves, co-founder, Saintsbury; and Greg Jones, Linfield College, moderator, and (standing) Dan Petroski, winemaker, Larkmead

**“WHAT IS NEAR AND DEAR TO MY HEART,”** said Larkmead winemaker **Dan Petroski**, “is the conversation about the future of Cabernet. Cabernet Sauvignon is what we built Napa Valley on in the last two to three decades. There is really not a singular more important topic than climate change and how it will impact our day-to-day life.”

After brainstorming ways to encourage conversations about important issues facing Napa Valley, Petroski had a light-bulb moment: He remembered that Larkmead founder **Lilli Hitchcock Coit** held salons in the 1800s, and began a new series of quarterly salons last year. For this edition, he invited a

panel of experts and peers interested in talking about climate change and the future of the valley.

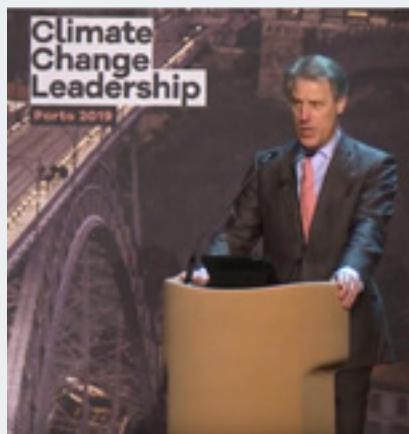
The central question posed by Petroski to a panel of experts: “Is the future of Cabernet Sauvignon in Napa much more limited than the valley is willing to acknowledge, considering climate change?”

The panel was moderated by **Greg Jones**, a research climatologist specializing in the climatology of viticulture. He was a contributing author on the IPCC Assessment Report,<sup>1</sup> that shared a 2007 Nobel Peace Prize with **Al Gore**. This report is thought to be instrumental in bringing about the

## Porto Protocol: Making a Commitment to Do More

**Adrian Bridge**, CEO of Taylor's Port, and the man behind the **Porto Protocol**, welcomed delegates to the **Climate Change Leadership – Solutions for the Wine Industry 2019** conference in Porto, Portugal, an event that was attended by more than 600 delegates from 30 countries featuring 60 speakers including a keynote speech by former U.S. vice president **Al Gore**.

The purpose of the Porto Protocol ([www.portoprotocol.com](http://www.portoprotocol.com)) is to raise awareness that climate change is here and that there are things we can do now to make a difference. By joining The Porto Protocol, companies make a commitment to do more than they are doing at the moment. The industry initiative is not just a call to action, but a binding commitment by its signatories, from whatever area, to make a greater contribution to mitigating climate change.



**Adrian Bridge**

"The (wine) industry can learn from each other to help solve a problem that impacts everyone and, as a branded agricultural industry, it can help shape consumer awareness that things are being done by this responsible industry to improve the future," Bridge said as the 2019 Climate Change Leadership conference began.

"Mitigating climate change is a very tough challenge and it's made harder by the fact that not everyone is in agreement," Bridge said. "The reality is that many individuals and companies are already doing a great deal and have been working to tackle this problem for years. However, they have often kept such information to themselves, conditioned as we all are to keep new technologies and our research private. It is now time that we learn to share our information and to learn from each other."

"The wine industry is the only branded agricultural industry in the world. Uniquely, it can tell you where its parts actually come from. What we in the industry often refer to as terroir is simply all about that sense of place. For most of us, it is about looking after remote regions where grape growing may be the only activity. It is about family businesses that think about future generations. It is about the opportunity that we have to transmit all of this to the consumer and to share with them the very responsible approach that we have for nurturing the land. This is why the wine industry, in my view, can take a leadership position."

"Climate change is real and is happening around us every day all over the world. As our speakers today will confirm, evidence of climate change is clear and incontrovertible. Its effect on the environment and on human lives and livelihoods can no longer be ignored," Bridge said.

Porto Protocol,<sup>2</sup> which calls on the wine industry to take a lead on climate change. Jones serves as the director of the **Center for Wine Education** and is a professor of environmental studies at **Linfield College**. Jones' modeling for the next 20 years sees the warming trend continuing globally and in wine regions.

**Cain Vineyard's** winegrower and general manager **Chris Howell** emphasized that it's our duty to do something about climate change and global warming. "It's not just scientific," he said. "It's moral, it's ethical, it's about our choices as humans on Earth and what we are leaving future generations, who may be in a worse position to deal with this. As a community, we absolutely need to address this and adapt—not only in terms of our own impacts but also in terms of how our vineyards will be impacted." In 2006, Howell read a tiny article on the front page of **USA Today** which quoted Jones about climate change, "...basically saying Napa was going to fry," said Howell. An ad-hoc group formed by the **Napa Valley Vintners**, including **Saintsbury's** co-founder **David Graves** and Howell, invited Jones to dinner. That began Howell's engagement with the effect of global warming on vineyards and wine.

According to Jones, more than 95 percent of all geoscientists in the world agree that our human influence—because of sheer population, urbanization, deforestation and green-house gas release—is all part of the issue. No wine region across the globe has seen any cooling trends—the changes are happening, Howell said.

## Meeting of the Minds

Beginning with Graves, Jones introduced the panel; then, each gave a short background of their careers and their work related to climate change. Graves, known for his leadership in climate activism in Saintsbury's early years along with his co-founder **Richard Ward**, was one of the first to sign on to the Porto Protocol. **Leo McCloskey**, owner of **Enologix**, a trained ecologist and an expert in fine wine analytical chemistry, manufacturing and quality, offered a way to scale quality wines, factoring in climate change. Since 2018, Enologix has predicted a vineyard's future temperature based on its climate history. Chris Howell spoke about the importance of a wine's sense of place, its terroir and the climate's important role to this sense of place. **Glenn McGourty**, Mendocino County director of viticulture and agriculture/viticulture and plant science advisor for **UC Cooperative Extension**, touched on several topics, including the importance of soil health in conservation.

The evening's 90-minute discussion included practical steps wineries can take today to move to more sustainable models.

McGourty shared ways wineries can better cope with climate change through soil health, technology, cultivation and cultivars. He stated that he discovered the world of soil health that builds resilience into the vineyard and promotes microbial activity, which results in less chemical fertilizer usage.

He stressed the need for Napa Valley to think about all the cultivation happening there because cultivation is damaging to the soil in the long run. "You can't build as much water storage or get nearly the infiltration rates of rainfall," noted McGourty. He went on to talk about the importance of developing a landscape that can absorb some of these bigger rainfall events of 4 to 8 inches, which seem to be occurring more often. Adding some detail, McGourty explained that tilled bare soil isn't nearly as efficient as a

non-tilled system with natural regenerating sod, which absorbs a lot of the moisture—up to a 200 percent higher infiltration rate.

Bringing technology into the picture, he also suggested the use of remote sensing devices, such as fixed-wing drones, which fly over the vineyard and show the moisture stress in the vineyard. The results can be downloaded to a phone and relayed to the irrigation system to activate water valves in places that are stressed and keep valves closed in places that are fine.

As for cultivars, McGourty reiterated what McCloskey is advising his clients to do, to look at cultivars that are more heat-tolerant. “As Leo said,” said McGourty, “if we are going to continue with Cab, we have to have something to blend into it so we can mitigate some of the things that might be missing in higher-heat situations.”

Earlier in the discussion, McCloskey said that his recommendation to companies new to him is to make and sell 80 percent Cabernet blends—making up to the 20 percent of the blend with varietals that thrive in heat to build up color lost by Cabernet. “To maintain the density of the wine, the size and interest of the wine that the market has gotten used to, other varietals such as Petit Verdot or Malbec, must be planted in Napa Valley to accommodate the higher heat...” said McCloskey. “You can’t control the optimum temperature of Cabernet because it is under tight genetic control.”

After fielding questions from more than 20 attendants, including winemakers from **Opus One** and **Silver Oak**, the panelists concluded that the general feeling from the discussion was that Napa Valley’s leadership was vital to changing winery practices in the world.

“We are borrowing our environment from the future without inheriting it from the past,” said Graves in a closing statement. “We need to be aware and act on the profound changes in our vineyards and the entire eco-region to secure a healthy future.” **WBM**

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For more information on Larkmead’s salon series, contact Dan Petroski at [dan@larkmead.com](mailto:dan@larkmead.com).

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## References

- <sup>1</sup> The IPCC Report, the Intergovernmental Panel on Climate Change Field, C.B., L.D. Mortsch, M. Brklacich, D.L. Forbes, P. Kovacs, J.A. Patz, S.W. Running and M.J. Scott, 2007: North America. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 617-652. <https://www.linfield.edu/wine/greg-jones.html>
- <sup>2</sup> Porto, Portugal is home to an important new initiative to mitigate the effects of climate change--the Porto Protocol. Launched in July 2018 with Barack Obama as keynote speaker, Porto established an innovative platform for the wine industry to share environmental best practices. Former vice president Al Gore, Miguel Torres of Bodegas Torres Family Winery and WBM editor, Cyril Penn, were among the speakers at this year’s summit.

The Porto Protocol has two major objectives.

The first is to ask everyone to do more to help than they are doing at the moment. Too often we think that the problem is for others to solve or that our individual contribution will not matter. And why bother? Surely some scientists will develop the solution and we can all continue as we are. This will not happen and we must all start to do more – every contribution, no matter how small, helps.

A second objective is to create a platform where participants can share their ideas, achievements and experiences. Many companies have worked hard to develop solutions that they are applying to their businesses, often through hard work and careful research. The objective is to share solutions that are making a difference, stimulate new ideas and inspire others to take action.

## Letter of Principles of The Porto Protocol

([www.portoprotocol.com](http://www.portoprotocol.com))

### Principles

By joining The Porto Protocol, companies are committed to:

- Do more than they are doing at the moment
- Guide their activity by good environmental practices principles
- Promote, in the respective value chain, these principles that characterize good environmental practices
- Seek to identify opportunities for cooperation with other Porto Protocol members and with external entities, regarding Climate Change
- Execute projects oriented towards the sustainability of the organization
- Disseminate good practices and case studies to The Porto Protocol platform
- Participate in the initiatives promoted by Climate Change Leadership Porto, to support The Porto Protocol
- Publicly report on their development performance
- Appoint a delegate to manage the relationship with The Porto Protocol

The Porto Protocol assumes the commitment to its members to:

- Promote, through The Porto Protocol platform the communication and dissemination of good practices of its members, as well as of the projects and other initiatives that companies are the main road to the Climate Change fight.
- Develop, together with members, tools to help fight climate change, share/dissemination of innovative ideas and provide access to learning tools, reports and know-how produced by Official entities
- Encourage debate and companies to explore new concepts
- Maintain a close relationship with its members through a regular communication and promotion of events
- Support the leadership of companies in matters of climate change