vinetur

Italian wine producers treat color as a controllable production system

A new industry analysis says wineries increasingly use data, sensors and process controls to manage consistency from vineyard to bottle.

Tuesday, June 9, 2026



Wine color is being treated less as a simple visual trait and more as a production system that can be measured, managed and adjusted from the vineyard to the bottle, according to a new industry analysis published Monday by Unione Italiana Vini through Il Corriere Vinicolo.

The piece, released ahead of the next Simei trade fair in Milan from Nov. 17 to Nov. 20, argues that color has become a technical variable that links grape maturity, extraction methods, oxygen management, temperature control, wine chemistry and measurement tools. The article was prepared by Pietro Russo, a Master of Wine, as the first installment in a broader editorial series on wine technology.

The report reflects a wider shift in how wineries are approaching quality control at a time when climate change, uneven phenolic ripening and changing market demands are making color harder to predict and more important to commercial success. In practical terms, producers are under pressure to deliver wines with consistent style even as raw material conditions vary more from one harvest to another.

For consumers, color is often the first feature they notice in a glass. For winemakers, the Italian publication says, it now serves as a diagnostic signal and a decision-making tool. That means color is no longer viewed only through tasting or visual inspection. It is increasingly monitored through sensors, instrumental analysis and data systems that help guide cellar operations.

The article says this change is tied to several forces reshaping the wine business. Warmer growing conditions can alter grape composition and affect the timing and balance of ripening. Variability in phenolic maturity can complicate extraction choices during maceration. At the same time, consumer expectations and the growth of e-commerce have increased the need for wines that look stable and recognizable across markets and vintages.

In that context, wineries are relying more on technology to reduce risk. Monitoring tools can help producers decide how long to macerate, how much oxygen exposure to allow and how tightly to control temperatures during fermentation and aging. Those decisions can influence not only hue and intensity but also stability over time.

The Italian wine association frames this as an integrated approach rather than a machine-led one. Instead of starting with equipment itself, the editorial project tied to Simei is organized around the goals winemakers want to achieve. In this first case, the goal is color management: how to read it correctly, how to track it during production and how to intervene when conditions change.

That approach matters because color in wine is shaped by many connected factors. Variety plays a role, as do vineyard conditions and harvest timing. In the cellar, extraction techniques, oxygen exposure and temperature all affect how pigments are released, transformed and preserved. Measurement systems then provide feedback that can support faster or more precise decisions.

The article does not present new consumer-facing products or announce specific commercial technologies. Instead, it points to a broader direction for the sector: more instrument-based monitoring and more process control in response to greater climatic and market uncertainty.

Simei, one of the wine industry’s main technology exhibitions, is expected to serve as a showcase for those developments later this year. According to Unione Italiana Vini, the fair will offer a place to observe not only how equipment is evolving but also how technology is changing decision-making inside wineries.

The emphasis on consistency is especially notable for producers competing in crowded domestic and export markets. A wine’s appearance can influence first impressions online as well as in stores and restaurants. For wineries selling across channels, maintaining a stable visual profile has become part of brand management as much as enology.

By presenting color as a system rather than an isolated attribute, the Italian industry group is signaling where technical investment may be headed: toward tighter links between vineyard data, cellar controls and analytical tools. The underlying message is that managing wine color now requires continuous oversight across the production chain, not just corrective action at the end of the process.