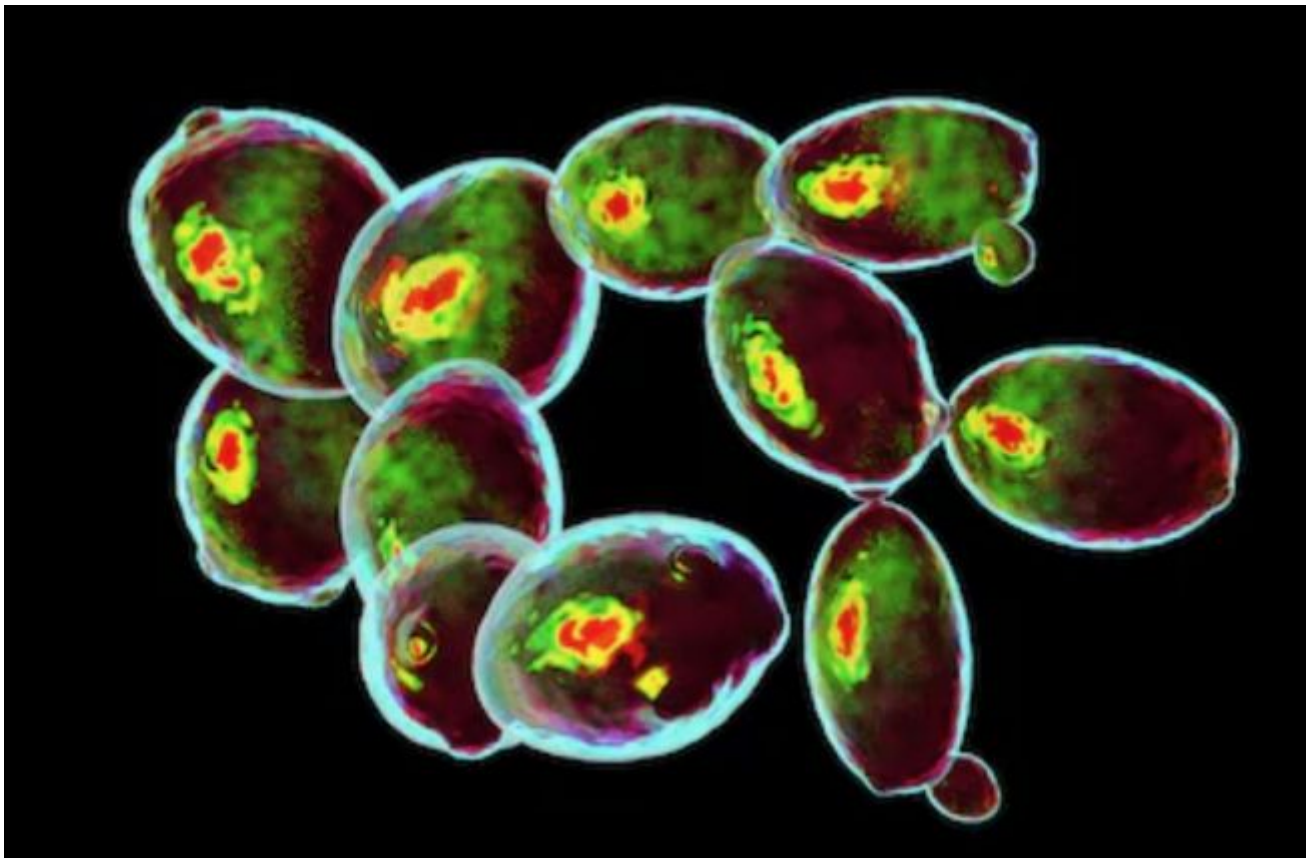
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How a 2012 OIV Resolution Revolutionized Yeast Selection for Winemakers

OIV Resolution on Wine Yeasts Marks 11 Years of Shaping the Wine Industry

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In March, the International Organization of Vine and Wine (OIV) celebrated its centenary by reflecting on a groundbreaking resolution from 2012 titled "Guidelines for the Characterization of Wine Yeasts." This document, widely adopted by wine-producing countries, has significantly influenced both the science and art of winemaking.

In winemaking, yeast plays a crucial role not only in transforming the natural sugars of grapes into alcohol but also in shaping the character and quality of the wine. Advances in microbiology and enology have enabled yeasts to be isolated from wine environments and selected based on their characteristics and the desired outcomes for the wine. The OIV-OENO 370-2012 resolution, adopted on June 22, 2012, during the 35th World Congress of Vine and Wine in Izmir, Turkey, provides a comprehensive framework for characterizing Saccharomyces yeasts isolated from these environments. This resolution outlines methods for determining technological and organoleptic aspects in the winemaking of both white and red wines, as well as food safety considerations, ensuring the viticultural origin of the selected yeasts.

The OIV invited three renowned researchers to share their insights on the adoption process of this resolution and its impact on winemaking. These experts explained the evolution of yeast use in winemaking from its ancient origins to its role in modern enology. They highlighted the importance of this resolution for the future of winemaking, particularly in the context of climate change, where selected yeast strains offer biological tools to ensure efficient fermentation and improve wine quality.

The use of Saccharomyces in winemaking dates back thousands of years. Saccharomyces cerevisiae, known as beer or baker's yeast, has been used in fermentation since antiquity. The civilizations of Mesopotamia and Egypt likely discovered fermentation accidentally, leading to the development of alcoholic beverages such as wine. During the Middle Ages, the role of yeast in fermentation was better understood. Monks and vintners identified Saccharomyces cerevisiae as the key microorganism in this process and began cultivating specific strains that produced desirable characteristics in wine. Today, this yeast is essential in modern winemaking, with selected strains enhancing flavors, aromas, and stability.

Yeast can be used in various ways in winemaking, affecting the final product. Many winemakers prefer specific strains of Saccharomyces cerevisiae and other non-Saccharomyces yeasts for their fermentation characteristics. Inoculating the must with these strains ensures rapid and vigorous fermentation, reducing spoilage risks. The choice of yeast and fermentation technique influences the wine's flavor profile, aroma, texture, and aging potential. Hence, the OIV adopted the OIV-OENO 370-2012

resolution, establishing guidelines for the characterization of Saccharomyces yeasts, considering technological and sensory quality criteria.

Yeast selection is crucial for the wine industry and has evolved since the 20th century. Today, hundreds of strains are commercially available as active dry yeasts. The use of these yeasts makes fermentation safer and more reliable. Initially, the selection focused on optimal Saccharomyces cerevisiae strains, but over time, other parameters such as influence on wine flavor, color stability, and mouthfeel improvement have been considered.

In the context of climate change, non-Saccharomyces yeasts have become important due to their special characteristics and positive effects on certain wines. The OIV regulated the use of these yeasts in 2017 with the "Monograph on Non-Saccharomyces Yeasts." Many criteria from the 2012 resolution also apply to these yeasts, allowing for an objective comparison between them and Saccharomyces.

The OIV 370-2012 resolution bridges the past and the future, combining traditional testing methods with new "omic" technologies to gain insights into the characteristics and enological potential of yeasts. This resolution, eleven years after its publication, remains current and relevant to the wine industry.