

# **Food & Beverage Packaging**

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## **The influence of packaging on the sensorial evolution of white wine as a function of the operating conditions adopted during storage**

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Starting from the past two decades, among all the possible wine packaging materials it has been possible to observe an expansive utilization of polymeric materials including PET bottles, multilayer tetrabricks and bag-in-box type containers. As oxygen is one of the main factors affecting wine evolution as well as its deterioration, the careful management of oxygen represents a critical issue during wine production and storage. Packaging, being the barrier that protects wine against environmental conditions, plays a fundamental role in the preservation of the quality of wine during all its life cycle, just starting from the bottling. With the aim to determine the influence of packaging in preserving the quality of wine, in this research project the sensorial evolution of a white table wine stored in different packaging materials (glass bottles provided with different closures; bag-in-box containers; tetrabricks) and different volumes (2 volumes for each packaging) has been evaluated over a period of 12 months. For each packaging solution two different temperature levels (4°C and 20°C) were also maintained throughout the storage period. The preliminary results obtained after 12 months of storage indicate that sensorial wine evolution might be greatly influenced by the packaging characteristics (i.e., packaging material and volume). Furthermore, also the temperature used during the storage period plays a key role on the evolution of wine since it can directly influence the oxygen permeability of the system “wine + package”.

### **Biography**

Sanmartin C has completed her graduation in Food Biotechnologies, with a PhD in Science of Plant Productions. She is a Researcher at DAFE UNIFI with 7 years of experience. She conducts R&D activities, development and validation of analytical methods for food quality of raw materials and products, qualification, characterization and monitoring of food technologies. She is the author of 30 scientific publications and presentations at national and international conferences. She is a Tutor for graduation and international fellowships.

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