Packaging and Storage of Olive Oil

1. Introduction

Olive oil, the main source of fats consumed in Mediterranean countries, is a liquid product obtained from the olives through a purely physical process. It is considered rich in many benefits from a health perspective, due to its nutritional value and the high amount of vitamins and essential fatty acids that it contains.

2. Extraction and Processing

The olive oil extraction process involves the pressing of the olives to release the oil, followed by various steps to refine the oil and remove impurities. After the first extraction, a second pressing is conducted with controlled temperatures lower than 45°C to obtain the so-called virgin olive oil.

3. Virgin Olive Oil Stability

The introduction of new packaging materials, in addition to the improvements in the filling techniques, has significantly contributed to the increase in the storage life of olive oil, resulting in the conservation of an excellent product quality.

4. Storage of Olive Oil

Storing and packaging olive oil involve many factors to be considered, such as the climate of the storage facilities, the product stability, maintaining high quality levels of the oil, and product safety. It is important that storing and packaging should be conducted at controlled temperatures, maintained at 4°C and not higher than 6°C to avoid the formation of white deposits, which are indicators of the oil stability decrease.

5. Olive Oil Quality and Nutritional Aspects

In addition to the nutritional value, olive oil has a positive impact on the consumer health, thanks to the presence of many antioxidants and polyphenols, which contribute to the reduction of the oxidation process.

6. Conclusion

The preservation of olive oil’s nutritional value and sensory characteristics is achieved through the use of optimal packaging materials and storage conditions. The consumption of olive oil improves the health of the Mediterranean populations, whose diet is based on this kind of oil in high quantities.
olive oil in the presence of photosensitizers (such as chlorophyll) and the subsequent formation of fatty acid hydroperoxides resulting in lower quality and shorter shelf-life.

The nature of the packaging material has a notable influence on oil quality (Gu et al. 2006) and, in Italy to a lesser degree, plastic and polycoupled ones. Dissolution of some substances, in particular copper and iron, after it is sealed and the oxygen diffused through the walls can alter oil quality and its safety aspects. Trends in EVOO storage have shifted in the last decades from the...
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March 2009 - Food Chemistry

Erenye Dikmenoglu, Figen Tokatli, Baran Ozen, Figen Kemal

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Chang-Hee Do, Jeong-Ill Lee, Hwa Lee, … Jang Hee Do

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