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Extra Virgin Olive Oil with a Tasting Identity: Challenge and Innovation

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According to the legislation, extra virgin olive oil is extracted from the olive fruit in a natural way and using only mechanical means. For an olive oil to be categorized as "Extra Virgin", it must be within established limits for a series of chemical parameters, as well as organoleptic characteristics (EU Directive 2022/2104). The organoleptic characteristics of an olive oil are those that are primarily evaluated by consumers. The share of the consumer public that prefers extra virgin olive oil, especially raw, is increasing, while at the same time it is an informed public that consciously uses extra virgin olive oil in its diet. Therefore, it requires a high-quality and stable product to gain credibility for the company/country that produces it. The creation of standardized olive oils within the limits of chemical parameters is usually carried out by mixing olive oils of different origins and different chemical characteristics and is considered relatively simple since all parameters are subject to the weighted average. For an industry that wants a reliable product on the market, this is not the case, because each batch of extra virgin olive oil produced is a complex mixture of many components that affect not only the taste and aroma, but also the absorption of health-protecting components and its shelf life. On the occasion of the above challenge, the olive oil standardization company "HELLENIC SELECT OILS S.A." in collaboration with the Department of Chemistry of the National University of Athens (Prof. A. Gkimisis), the Department of Agriculture - Kalamata Olive Oil Tasting Laboratory of the National University of Athens (Prof. V. Dimopoulos) and the company COM2S submitted a proposal for the "Research Excellence Partnerships" program and were approved for the project "Extra Virgin Olive Oil Tasting Identity Algorithm" - "EVOO SIA". The object of the Project is the design of the "Tasting Identity" of a corporate or private label, which will be based on the possibilities of achieving tasting objectives based on the available raw material. Each raw material will be evaluated for the chemical parameters that affect the taste with innovative and direct analysis methods, while for the organoleptic characteristics by the company's internal tasting team that will be trained as part of this project. The combination of the various raw materials to achieve a stable and specific "Taste Identity" will be based on a specific algorithm, for the creation of which additional data will have contributed after research on consumer preferences.

Keywords: Extra virgin olive oil; olive oil standardization; tasting identity algorithm; EVOO SIA.