THE DEVELOPMENT OF REFERENCE MATERIALS IN VIRGIN OLIVE OIL SENSORY ASSESSMENT: THE CONTRIBUTION OF FLAVOUR CHEMISTRY

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The panel test is the standard method described by the current international regulations (e.g. norms from the International Olive Council) to assess sensory quality of virgin olive oil. At present, an intense discussion is centred in the need for the standardization of a method to be used in the assessment of the organoleptic characteristics in addition to the established panel test, as well as in the required improvement of the latter. In both cases, the existing knowledge on volatile compounds has to be applied and the development of reference materials are needed for increasing the metrological quality of the methods. Since there is existing knowledge about the volatile compounds responsible for some of the most common sensory defects (e.g. winey-vinegary), these compounds can be evaluated in their ability for producing reference materials associated to each sensory defect. For this purpose, these compounds have to be present in virgin olive oil characterized with sensory defects and a direct relationship between their occurrence and their sensory impact has to be demonstrated. The sensory properties of volatile compounds (attributes and odour thresholds) will be relevant to select volatile markers of the sensory defects that can form part of the formulation of reference materials. This work is being addressed in the project OLEUM "*Advanced solutions for assuring authenticity and quality of olive oil at global scale*" funded by the European Commission within the Horizon 2020 Programme (2014–2020, grant agreement no. 635690).