

Analytical Procedures for Detecting Olive Oil Falsification

Dr. Christian Gertz, Chemisches Untersuchungsamt Hagen, Germany / cgertz@cua-hagen.de

The regulation VO 2568/91 of the European Union describes the features of various olive oil qualities – “native olive oil extra”, “native olive oil”, “olive oil”, “refined olive oil” – and also the corresponding analytical methods. However, this regulation dates from the year 1991. Since then, the technology of fat and oil production has developed and many of the VO 2568 methods are no longer suitable for testing the origin and quality of oils. On the contrary: the the official regulations are increasingly used today to legalise manipulation and falsification.

On today’s market we find almost nothing but olive oils of the highest class, “native extra”, because it is not hard to fulfil the analytic requirements of VO 2568/91. There is, however, no shortage of better methods. Many of the methods of analysing olive oil in the VO 2568/91 can now be replaced by more up-to-date chromatographic techniques.

The German Society for Fat Science (DGF) proposes a number of procedures on its website, www.dgfett.de, which allow detection within a few hours of adulteration with foreign oils, the authenticity of olive oil, its origin, sensory defects and age. Unfortunately the law does not allow such modern analytical techniques, which are already standard in practically all food technology laboratories, to be used for olive oil: the rigid stipulation of permitted analytical methods in the regulations prohibits their use. It is obvious, of course, that olive oil producing countries are not particularly interested in changing the situation.