

ANNEX V

Annex XII to Regulation (EEC) No 2568/91 is amended as follows:

(1) point 1 is replaced by the following:

1. PURPOSE AND SCOPE

The purpose of the international method described in this Annex is to determine the procedure for assessing the organoleptic characteristics of virgin olive oil within the meaning of point 1 of Part VIII of Annex VII to Regulation (EU) No 1308/2013 of the European Parliament and of the Council⁽¹⁾ and to establish the method for its classification on the basis of those characteristics. It also provides indications for optional labelling.

The method described is applicable only to virgin olive oils and to the classification or labelling of such oils according to the intensity of the defects perceived and of the fruitiness, as determined by a group of tasters selected, trained and monitored as a panel.

The IOC standards mentioned in this Annex are used in their last available version.;

(2) points 3.2, 3.3 and 3.4 are replaced by the following:

3.1.1. *Other negative attributes*

<i>Heated or Burnt</i>	Characteristic flavour of oils caused by excessive and/or prolonged heating during processing, particularly when the paste is thermally mixed, if this is done under unsuitable thermal conditions.
<i>Hay-wood</i>	Characteristic flavour of certain oils produced from olives that have dried out.
<i>Rough</i>	Thick, pasty mouthfeel sensation produced by certain old oils.
<i>Greasy</i>	Flavour of oil reminiscent of that of diesel oil, grease or mineral oil.
<i>Vegetable water</i>	Flavour acquired by the oil as a result of prolonged contact with vegetable water which has undergone fermentation processes.
<i>Brine</i>	Flavour of oil extracted from olives which have been preserved in brine.
<i>Metallic</i>	Flavour that is reminiscent of metals. It is characteristic of oil which has been in prolonged contact with metallic surfaces during crushing, mixing, pressing or storage.
<i>Esparto</i>	Characteristic flavour of oil obtained from olives pressed in new esparto mats.

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	The flavour may differ depending on whether the mats are made of green esparto or dried esparto.
<i>Grubby</i>	Flavour of oil obtained from olives which have been heavily attacked by the grubs of the olive fly (<i>Bactrocera oleae</i>).
<i>Cucumber</i>	Flavour produced when an oil is hermetically packed for too long, particularly in tin containers, and which is attributed to the formation of 2,6 nonadienal.

3.2. Positive attributes

<i>Fruity</i>	Set of olfactory sensations characteristic of the oil which depends on the variety and comes from sound, fresh olives, either ripe or unripe. It is perceived directly and/or through the back of the nose.
<i>Bitter</i>	Characteristic primary taste of oil obtained from green olives or olives turning colour. It is perceived in the circumvallate papillae on the “V” region of the tongue.
<i>Pungent</i>	Biting tactile sensation characteristic of oils produced at the start of the crop year, primarily from olives that are still unripe. It can be perceived throughout the whole of the mouth cavity, particularly in the throat.

3.3. Optional terminology for labelling purposes

Upon request, the panel leader may certify that the oils which have been assessed comply with the definitions and ranges corresponding to the following adjectives according to the intensity and perception of the attributes.

Positive attributes (fruity, bitter and pungent): According to the intensity of perception:

- *Intense*, when the median of the attribute is more than 6,
- *Medium*, when the median of the attribute is between 3 and 6,
- *Light*, when the median of the attribute is less than 3.

<i>Fruity</i>	Set of olfactory sensations characteristic of the oil which depends on the variety of olive and comes from sound, fresh olives in which neither green nor ripe
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	fruitiness predominates. It is perceived directly and/or through the back of the nose.
<i>Greenly fruity</i>	Set of olfactory sensations characteristic of the oil which is reminiscent of green fruit depends on the variety of olive and comes from green, sound, fresh olives. It is perceived directly and/or through the back of the nose.
<i>Ripely fruity</i>	Set of olfactory sensations characteristic of the oil which is reminiscent of ripe fruit depends on the variety of olive and comes from sound, fresh olives. It is perceived directly and/or through the back of the nose.
<i>Well balanced</i>	Oil which does not display a lack of balance, by which is meant the olfactory- gustatory and tactile sensation where the median of the bitter and/or pungent attributes is two points higher than the median of the fruitiness.
<i>Mild oil</i>	Oil for which the median of the bitter and pungent attributes is 2 or less.;

- (3) in point 7, the following point is inserted after point 7.1:

7.1.1. *Deputy panel leader*

The panel leader may, on justified grounds, be replaced by a deputy panel leader who may stand in for duties regarding the performance of the tests. This substitute must have all the necessary skills required of a panel leader.;

- (4) point 7.2 is replaced by the following:

7.2. **Tasters**

The people acting as tasters in organoleptic tests carried out on olive oils must do so voluntarily. It is therefore advisable for candidates to submit an application in writing. Candidates shall be selected, trained and monitored by the panel leader in accordance with their skills in distinguishing between similar samples; it should be borne in mind that their accuracy will improve with training.

Tasters must act like real sensory observers, setting aside their personal tastes and solely reporting the sensations they perceive. To do so, they must always work in silence, in a relaxed, unhurried manner, paying the fullest possible sensory attention to the sample they are tasting.

Between 8 and 12 tasters are required for each test, although it is wise to keep some extra tasters in reserve to cover possible absences.;

- (5) point 9.3 is replaced by the following:

9.3. **Use of the data by the panel leaders**

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The panel leader shall collect the profile sheets completed by each taster and shall review the intensities assigned to the different attributes. Should they find any anomaly, they shall invite the taster to revise his or her profile sheet and, if necessary, to repeat the test.

The panel leader shall enter the assessment data of each panel member in a computer program like that provided by the standard IOC/T.20/Doc. No 15 with a view to statistically calculating the results of the analysis, based on the calculation of their median. See point 9.4 and the Appendix to this Annex. The data for a given sample shall be entered with the aid of a matrix comprising 9 columns representing the 9 sensory attributes and n lines representing the n panel members used.

When a defect is perceived and entered under the “others” heading by at least 50 % of the panel, the panel leader shall calculate the median of the defect and shall arrive at the corresponding classification.

The value of the robust coefficient of variation which defines classification (defect with the strongest intensity and fruity attribute) must be no greater than 20 %.

If the opposite is the case, the panel leader must repeat the evaluation of the specific sample in another tasting session.

If this situation arises often, the panel leader is recommended to give the tasters specific additional training (IOC/T.20/Doc. No 14, § 5) and to use the repeatability index and deviation index to check taster performance (IOC/T.20/Doc. No 14, § 6).;

(6) point 9.4 is replaced by the following:

9.4. Classification of the oil

The oil is graded as follows in line with the median of the defects and the median for the fruity attribute. The median of the defects is defined as the median of the defect perceived with the greatest intensity. The median of the defects and the median of the fruity attribute are expressed to one decimal place.

The oil is graded by comparing the median value of the defects and the median for the fruity attribute with the reference ranges given below. The error of the method has been taken into account when establishing the limits of these ranges, which are therefore considered to be absolute. The software packages allow the grading to be displayed as a table of statistics or a graph.

- (a) Extra virgin olive oil: the median of the defects is 0 and the median of the fruity attribute is above 0.
- (b) Virgin olive oil: the median of the defects is above 0 but not more than 3,5 and the median of the fruity attribute is above 0.
- (c) Lampante olive oil: the median of the defects is above 3,5 or the median of the defects is less than or equal to 3,5 and the fruity median is equal to 0.

Note 1: When the median of the bitter and/or pungent attribute is more than 5,0, the panel leader shall state so on the test certificate.

For assessments intended to monitor compliance, one test shall be carried out. In the case of counter assessments, the panel leader must arrange for the assessment to be carried out in duplicate in different sessions; the median of the attributes will be calculated on the basis of all the profile sheet data for both tests.;

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(7) Figure 1 is replaced by the following:

Figure 1 PROFILE SHEET FOR VIRGIN OLIVE OIL

Intensity of perception of defects		
Fusty/muddy sediment		
Musty/humid/earthy		
Winey/vinegary acid/sour		
Frostbitten olives (wet wood)		
Rancid		
Other negative attributes:		
Descriptor:	Metallic # Dry hay # Grubby # Rough # Brine # Heated or burnt # Vegetable water # Esparto # Cucumber # Greasy #	
Intensity of perception of positive attributes		
Fruity		
	Green #	Ripe #
Bitter		
Pungent		
Name of taster:		Taster code:
Sample code:	Signature:	
Date:		
Comments:		

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- (1) Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007 ([OJ L 347, 20.12.2013, p. 671](#)).’;

Changes to legislation:

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