

THE OLIVE OIL: A GREAT WEALTH AT TABLE

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As already said several times, the use of the olive oil is one of the keys of the Mediterranean diet, that is to say the food-model particularly beneficial for our health and tasty for our palate. It is the key-ingredient as for dressings because it is a “noble” fat, unsaturated, that does not harm our health and in the last decades it has practically put aside the other fats used as dressing: butter and seed oil. From Northern to Southern Italy, except for Piemonte and Valle D’Aosta, all the regions have wide olive fields, and the oil obtained has different organoleptic characteristics for each of them. The environmental differences of our country give the different varieties of cultivated oil their own values, characters, history. In one word, their own personality. Let’s try to know this product better to understand the existing differences from one to another, how an oil can be evaluated, and which parameter we should use to buy it. At first we will deny the common place according to which olive oil is heavier than seed oil; their caloric value is the same, and there is no scientific evidence supporting the theory that seed oil is more digestive than olive oil. It should be recognized also that the denomination “extra-virgin” is not a synonym for quality: in fact a good olive oil is surely extra-virgin but the contrary is certainly not true; an extra-virgin is not always good. The mathematicians would say that the condition is necessary but not sufficient. Let’s start with some history.

Several tales by Colum Ella, Cato and Pliny, witness that the olive oil consumption started in ancient times; in Rome, as in Greece, it represented the main source of fats in the diet, and it was one of the most traded products in those markets. In Greece there was even a law, till the IV century b.C., providing the death penalty for those who damaged or cut down an olive-tree, as it was considered a sacred plant. Beyond the field of food, oil has always coped with other needs, the medical field (it was used to cure rheumatisms, arthritis, gout, wounds) or the cosmetic field (creams and ointments were made from cypresses, incense grains, milk and olive oil). After the fall of the Empire and the arrival of the barbarians, the consumption and production of olive oil was suddenly stopped, and limited to the family use; it was only in the XIII century, because of the population growth and the development of urban centres, that new trade opportunities opened, favouring the new-birth of oil production. In the XVIII century the Italian oil, particularly from Tuscany and Apulia, was considered the most precious and it was considered an inevitable food on the noble tables all over Europe; and still today this record is due to olive.

Let's see how the olive oil can be classified. First of all we must say that the olive is the only fruit that through physical or mechanical means can produce an oil directly edible, and the denomination "virgin" explains it has not undergone any chemical addition, necessary, instead, to produce seed oils. According to CE 1513/2001 dated 7/23/01 the oil classification is to be realized taking into consideration the acidity percentage and the score assigned by numerous professional tasters. The classification is:

- extra-virgin olive oil: minimum organoleptic score: 6,5 and maximum free acidity; 0,8%
- virgin olive oil: minimum organoleptic score: 5,5 and maximum free acidity: 3,3%

- current virgin olive oil: minimum organoleptic score: 3,5 and maximum free acidity: 3,3%

- lamp virgin oil: organoleptic score lower than 3,5 and /or free acidity higher than 3,3%

As you can easily guess this regulation does not provide strict parameters and it is often sufficient to add an oil, otherwise this oil would belong to a lower category. A help for the consumer can come from the Denomination of protected origin (PDO) as rules regulating them are certainly stricter to establish the reference-parameters; these are very useful to keep the territory and the traditions. As for the use while cooking, the extra-virgin olive oil used raw gives the food particular aroma and taste, enriching and mixing the traditional dishes of our cooking. But there is a never ending dilemma finding no solution: which oil is to be used for frying? The answer is really very simple. A firm oil is needed for frying (firmness is the capacity of the poliphenols to resist the oxidation) as while frying it undergoes high heating and it is important it never achieves the smoking point, producing awful and dangerous substances for the liver. The fats that better resist heating are some modified vegetal oils (like FRIOL), pork fat and olive oil. The first (FRIOL and similar) is a seed oil modified in the lab just to make it resistant to high temperature: it is also neutral enough because it doesn't provide fried food with any particular taste, in fact it is particularly advisable for tasty food, like fish. Pork fat is solid when at room temperature, therefore when food gets colder a fatty envelope forms in the external part, and this could be also negative. The olive oil, both virgin and extra-virgin, has a good firmness and it gives good odours and aroma giving the fried food a different taste. Finally I would like to deal with some evaluations we should make before buying an oil. First of all you should avoid oils priced less than € 6,7 per litre: a good oil couldn't

recover production expenses. Then, as I said before ,in almost all the Italian regions olive is cultivated, so it is not so difficult to find a friend or a relative that produces it, granting its quality and giving us the sufficient quality for a year. The most consumers address to the supermarket, where there is a wide offer , but it is also higher the possibility to buy a low-quality product. The only instrument we have had so far, waiting for the judgement of the palate, was to read the label providing no information about the raw material origin, the place of production and the organoleptic characteristic. But probably from the 1st . July things will change; 3/6/09 a new regulation was established(n. 182/2009/CE), which recognized that the rules on olive oil trade applied so far were insufficient to avoid the consumers being cheated about the real characteristics of virgin oil. The new labels will have to indicate with clear and inerasable characters the information on the oil category, together with the indication of the member-state or III country and, depending on the cases, they will have some writings, such as “communitary olive oil mixture”; “non-communitary olive oil mixture”; “communitary and non-communitary olive oil mixture” or similar information. This will probably be not enough to grant a good quality but it is certainly one step forward.

Oil: cooking and gastronomy – oil culture is close to wine-culture more than we can imagine: a new oil-gastronomy is developing: this aims at matching an extra-virgin olive oil to a certain dish. A national organization of oil-tasters was born and several courses of oil tasters are developing all over Italy. In fact with the introduction of the so-called “Panel test” the appreciation of the oil “on the whole” has become a necessary aim; this puts in evidence the organoleptic elements, that thanks to their balance and homogeneity, give the opportunity to mix the

tastes of the different ingredients of the food where oil is used. In fact wine has the task to match the dishes without altering their tastes, while oil has the function to match and exalt the tastes. The oil production campaign and the embattlement or packaging date are important because a young oil is always more aromatic and better expresses its peculiarity and flavour.

Olive oil or seed oil?

Olive oil should always be chosen for some simple reasons:

- the olive oil is the only product extracted with the simple pressure of the fruit, without any other chemical-physical manipulations
- the seed oil is on the contrary produced through the use of special machines (in a hard way) and chemical materials, as butane, propane, .

Some advice while cooking

We can advise to use extra-virgin or virgin olive-oils when used raw, choosing typical oils with a granted origin. For a good frying, excluding the first because they are too expensive, we should always prefer the olive oil and not the seed oil. If we want to establish if an oil is adapt for frying we should take into consideration the chemical and physical alterations happening while heating. Some researches showed that with the same heating grade, the oil endowed with more unsaturated and polyunsaturated fatty acids undergo more alterations; these are lower in the olive oil compared to other oils, as soy-oils or sunflower oils. Our perception of a lighter taste of the seed oil is only apparent, due to a major smoothness and a lack of taste of the seed-oil; therefore the olive oil can be really considered the most fit for frying. Frying. Fried food is

certainly delicious but it is the result of a work of art. Food must be crispy and golden-coloured, but it must not be full of fat.

How many times can oil be used? If you use olive oil you can fry food two or three times with the same oil and even 15 times with the electric frying machine endowed with a thermometer checking a constant temperature.

Which is the ideal temperature? It depends: moderate (130°-145°C) for vegetables and other food cut into big pieces; high (160°-170°C) for food cut into small pieces and very high (over 170°) for very small food.

If we do not have a frying machine? The best way is to use the traditional black pans, that do not need to be washed after their use, but only cleaned with some paper; it is better not to use an electric one.

Some more advice? Never use the oil for frying for a long time, cook your food at room-temperature, not cold, sinking it into already hot oil; use containers fit for the quantity of food you want to fry; dry the fried food very well even with absorbing paper.

It is good when raw, but it is more anti-oxidant in the tomato sauce

There is no Mediterranean diet without extra-virgin olive oil. But there is also “Italian style” food causing any discussion on the best use of the olive oil for cooking or frying, or used uncooked. A research printed an occasion of DOP oil month in Campania (27/2-29/3) by Raffaele Sacchi (Food Science Department of Naples-University Federico II) revealed the best matching of the extra-virgin. The researcher underlined: “many

people think that top-quality extra-virgin is at its best when used raw, but this is true only in part. As dressing the raw oil expresses its spicy-bitter character, for some defined as “primitive”. Instead while cooking the oil loses its bitterness because of complex chemical phenomena as the hydrolysis of complex phenols. “Heating and cooking-Sacchi underlines- can meaningfully temperate the aggressiveness of an extra-virgin”. This scientific research shows also that the oil loses its better taste with cheese or ricotta. According to these data the anti-oxidants are only partly lost, while cooking. At the same time in the cooked food you can not find the aroma herb, fruity aroma of the fresh oil used, but mild odours. The odour of the oil get lost over all if cooking-time is long. While cooking you can take part to alchemic performances. The researcher reminds that while cooking the oil solubilised even many other aroma present in the other ingredients and provides the food with a crispy care. As for the sauces the oil gives them smoothness. It is a good thing, in fact, to use just a little oil for cooking and adding the rest on the ready dish. The extra-virgin olive oil is also an “ideal partner” of tomato. Surprisingly Sacchi announces: “this partnership works better when the oil is cooked than when it is uncooked. The oil protects the noble elements of tomato, even during long cooking as in the case of Magi and allows our body to absorb better its carotenoids. Paradoxically while the tomato is being cooked, its anti-oxidant activity increases. The researcher warns “the seed oil has not got the same effect”. The terracotta pot is the best container to cook the tomato sauce the so-called “pummarola” protagonist in the comedy “Saturday, Sunday and Monday” by E. De Filippo. A study led by Lund University (Sweden) shows how the oil can limit cancer-power of roasted meat by a sinking in oil and herbs. Dried and steady Grilled fish, does not pass the exam because oil-free; while

fish should be well roasted and passed with oil herbs and lemon, as the tradition teaches us.