

Valderrama

Thanks to our methods and the exhaustive scrutiny of our manufacturing process, we obtain an oil of the healthiest possible quality, that helps the consumer to follow the healthiest of diets for the prevention of illness.

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Hunting **Polyphenols.**

Valderrama Laboratory

The entire difference between a good oil and an exceptional oil lies in the 2% of water soluble material the oil contains.

At Valderrama we seek to attain the highest possible quality, purity and health in our oils, by researching and improving the mechanical process of extraction.

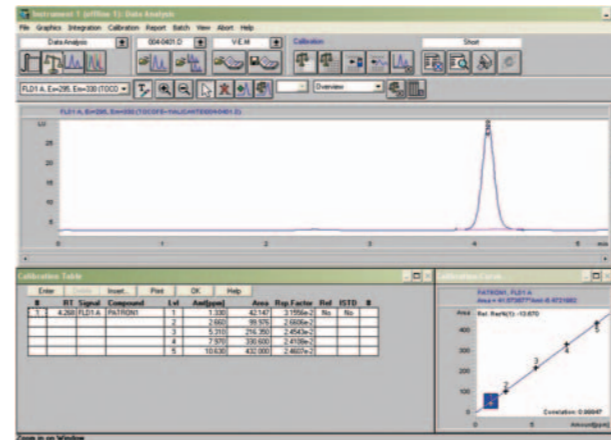




Polyphenols
To determine the polyphenols, the olive oil is analyzed by means of HPLC (High Performance Liquid Chromatography).

2%

All of our research is focused on optimizing the mechanical processes to extract the better of the 2% of water soluble material from the oil.



Vitamin E
By doing a straight line calibration, we can calculate the concentration of vitamin E in our oils.



Fatty acids
To analyze the fatty acids we use a gas chromatograph of the most recent generation.

Objective: Quality

At Valderrama Oils we are extremely careful with the quality of our products, from the work in the fields to the production of our Extra Virgin Olive Oil.

The Production of Healthy Oils

Our objective is to produce a healthy product that meets the needs of our demanding clientele.

Optimum Configuration

In order to extract the oil with the maximum amount of polyphenols from each variety, we perform ongoing analyses to determine the amount of polyphenols, of vitamin E, of the fatty acids as well as the acid levels, of the peroxides, and of ultra-violet absorption, etc. in each one of the possible combinations within the physical parameters of the company. For each variety and for the soil we carry out between 10 and 20 analytic processes.

The optimum configuration obtained is that which will be used for each variety and the corresponding soil.

Polyphenols

Every day we carry out ongoing tests of the polyphenols, which are those elements that make olive oil the healthiest of oils.

The analyses are done by means of HPLC (High Performance Liquid Chromatography).

Vitamin E

In addition to the polyphenols, we also carry out an analysis of Vitamin E, a natural antioxidant that prevents heart disease and helps us to follow a well balanced diet.

For this we use HPLC analysis, using the internal standard method.

The vitamin E levels in our products are always between 200 to 300 mg/Kg of oil.

Fatty acids

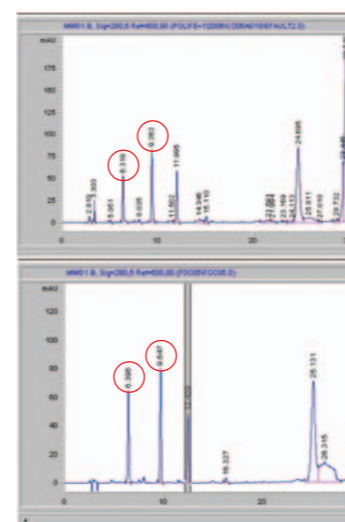
Another important element in olive oil is the fatty acid content. Oleic acid, which is unsaturated, is very important and helps with the degradation of cholesterol. Along with linoleic acid, which our body produces, it is essential for life.

Chromatography of gasses

To analyze the fatty acids we use a gas chromatograph of the most recent generation.

Influence of the physical parameters in the concentration of fatty acids.

By making adjustments and changing the physical parameters of the manufacturing, we can change the characteristics and produce oil that is healthier while having an ideal concentration of oleic acid.



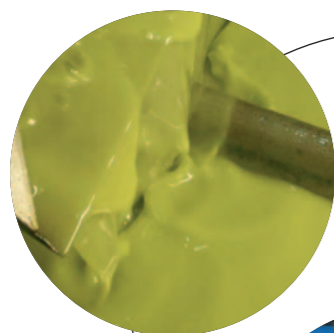
Here we can see the important peaks, such as the levels of Hydroxytyrosol and Tyrosol, as well as others such as vanillin, all of which are implicated in the making of a healthier oil.

By changing the physical parameters of the manufacturing, we can alter the organoleptic and chemical characteristics of olive oil.

We do this after comparing the chromatograms obtained in the different tests.

In our laboratory we can observe the peaks in the levels of Hydroxytyrosol and Tyrosol, as well as others such as vanillin, all of which are implicated in the making of a healthier oil.

Sampling



Analysis



Change in the physical parameters