



BERKELEY OLIVE GROVE 1913 produces superior olive oils, always of high to very high total phenol values and very low oleic free acidity.

By 1913 University of California professors established a state-of-the-art grove of Mission olive trees, described as a thousand-year project (a reasonable life expectancy of olive trees). The terroir has proved to be ideal for this heirloom olive.

The entire estate is currently certified organic and kosher as well as being dry-farmed and no-till. All harvesting and pruning is done by hand and all farming practices are focused on increasing sustainable environmental efficiency and achieving a natural balance.

Producing healthful food of true natural value via traditional agriculture is our purpose.

December 8, 2015, "**Berkeley Olive Grove 1913 robust olive oils are among the top 2.5% or higher of the top samples regarding the total phenolics compared with our database of more than 2,500 samples....** It is exciting that we discovered in your samples very high concentration of a compound with antihypertensive* activity named elenolide**. We are very excited about this discovery; a new field of research have opened for us and for your product is something very important!!!"

~Dr. Eleni Melliou, World Olive Labs

November 17, 2015, from a scientific evaluation report for the olive oil of Berkeley Olive Grove: "It should be noted that oleocanthal, oleacein and oleuropein aglycone present important biological activity and they have been related with anti-inflammatory, antioxidant, cardioprotective and neuroprotective activity. **The levels of oleuropein aglycone are the highest that have been recorded** in the international database which has been developed by the University of Athens."

~Dr. Eleni Melliou, World Olive Labs

November 17, 2015, "The name **Oleomissional** (in the honor of Mission variety from California) has been accepted by the International Olive Oil Council and is going to be published in the November issue of the official Journal of the council. It is formally mentioned that the new ingredient was isolated for the first time from the olive oil of Berkeley Olive Grove.

Two weeks ago in Spain we announced the results of the clinical study that was performed at UC Davis with olive oil rich in oleocanthal and oleacein. For the first time, we were able to show that an olive oil with oleocanthal+oleacein around 450 mg/Kg (similar to your last year's Classic) can have a similar effect on humans like ibuprofen in the prevention of thrombosis and protection from heart attack and stroke."

~Dr. Prokopios Magiatis, University of Athens, Department of Pharmacognosy and Natural Products Chemistry

December 10, 2015, "We checked again yesterday the sample of 'Classic' that you had sent us in January and it is still great. After almost one year the levels of phenols are the same. So, it is a very stable oil in contrast to some other oils that we have measured that can lose a significant part of their phenolic content; it is a great advantage of your oil. The sample was kept at room temperature in a clear glass vial under conditions similar to a supermarket shelf."

~Dr. Prokopios Magiatis, University of Athens, Department of Pharmacognosy and Natural Products Chemistry



World Olive Labs: Lab Reports

BERKELEY OLIVE GROVE 1913 robust olive oils as compared to the samples included in the World Olive Labs database (period 2010-2015) tested with the following levels:

1. **Oleuropein aglycon**—99% higher;
2. **Oleuropein and ligstroside aglycons**—99% and 98% higher respectively;
3. **Oleacein**—91% higher and almost 3 times higher than the average value of international study performed at the University of California, Davis. *Source: <http://www.oliveoiltimes.com/phenolic-compounds-olive-oils-bought-california>*
4. **Oleocanthal**—40% higher; and
5. **Total of analyzed compounds (tyrosol and hydroxytyrosol derivatives)**—among the top 2.5%;
6. **Total of hydroxytyrosol derivatives**—top 1%.

HEALTH CLAIM

1. The daily consumption of 20 g (4 tsp) of the analyzed olive oil sample provides 35 mg (>5 mg) of hydroxytyrosol, tyrosol or their derivatives and consequently the oil belongs to the category of oils that protect the blood lipids from oxidative stress per the Regulation 432/2012 of the European Union.
2. The total tyrosol and hydroxytyrosol derivatives are 7 times higher than the limit of the European regulation, which makes sure that 18 months after harvesting the oil will still exceed the limit provided keeping in place away from high temperature and direct sunlight.
3. It should be noted that oleocanthal, oleacein and oleuropein aglycon present important biological activity and they have been related with anti-inflammatory, antioxidant, cardioprotective and neuroprotective activity.

The Berkeley Olive Grove 1913 olive oil from Oroville, California, produced Nov. 2015 when analyzed by World Olive Labs showed very high levels of natural biophenols with proven anti-inflammatory, antioxidant, cardioprotective and neuroprotective activity. The oil biophenol levels ranked among the top 2.5% of worldwide olive oils analyzed by World Olive Labs from 2010 to 2015.

(excerpts by Agbiolab from "Berkeley Olive Grove" report by World Olive Labs, dated 12/30/2015)



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SCIENTIFIC EVALUATION REPORT FOR THE OLIVE OIL "Berkeley Olive Grove"

In November 2015 we received in our laboratory a sample of olive oil with the brand name "Berkeley Olive grove" originating from Oroville, California which was produced in 11.6.2015.

The sample was analyzed based on a validated method that has been published in the Journal of the American Chemical Society: J. Agric Food Chem., 2012, 60 (47), 11755-11703, J. Agric Food Chem., 2014, 62 (3), 600-607 and the Journal of the International Olive Oil Council: OLIVAE, 2015, 122, 22-33.

Using the same method, more than 2500 olive oil samples from the 2010-2011, 2011-2012, 2012-2013, 2013-2014, 2014-2015 and 2015-2016 periods have been analyzed in collaboration with the laboratory of Pharmacognosy and Natural Products Chemistry of the faculty of Pharmacy of the Athens University (Greece). The origin of the samples is mainly from Greece, California, Italy, Spain, Croatia, Tunisia, Cyprus and a small number from France, Argentina, Chile, Morocco, Israel and the database contains data from more than 30 different varieties of olives. For all olive oil samples there is a detailed archive.

The chemical analysis of the olive oil "Berkeley Olive grove" showed the following results:

Oleocanthal: 145 mg/Kg
Oleacein: 295 mg/Kg
Oleuropein aglycone (monoaldehyde form): 258 mg/Kg
Ligstroside aglycone (monoaldehyde form): 66 mg/Kg
Oleuropein aglycone (dialdehyde forms)*: 537 mg/Kg
Ligstroside aglycone (dialdehyde forms)**: 464 mg/Kg
Total hydroxytyrosol derivatives: 1090 mg/Kg
Total derivatives of tyrosol: 675 mg/Kg
Total of analyzed compounds (index D3): 1765 mg/Kg
*Oleomissional+Oleuropeindial **Ligstrodial+Oleokoronal.

Comparing these results with the olive oil database results we are in the position to certify the following:

1. The oleuropein aglycon (monoaldehyde form) concentration (258 mg/Kg) is higher than 99% of the samples included in the database

2. The oleuropein and ligstroside aglycons (dialdehyde forms) concentration (537 and 464 mg/Kg) is higher than 99% and 98% of the samples included in the database, respectively.
3. The ligstroside aglycon (monoaldehyde form) concentration (66 mg/Kg) is higher than 88% of the samples included in the database
4. The oleacein concentration (295 mg/Kg) is higher than 91% of the samples included in the database and almost 3 times higher than the average value (105 mg/Kg) of the samples included in the international study performed at the University of California, Davis. <http://www.oliveoiltimes.com/phenolic-compounds-olive-oils-bought-california>
5. The oleocanthal concentration (145 mg/Kg) is higher than 40% of the samples included in the database and higher than the average value (135 mg/Kg) of the samples included in the international study performed at University of California, Davis (<http://www.oliveoiltimes.com/phenolic-compounds-olive-oils-bought-california>).
6. The total of analyzed compounds (tyrosol and hydroxytyrosol derivatives (1765 mg/Kg) is among the top 2.5% of the samples for the period 2010-2015. Especially the total of hydroxytyrosol derivatives (1090 mg/Kg) is among the top 1% of the samples for the period 2010-2015.

HEALTH CLAIM

1. The daily consumption of 20 g of the analyzed olive oil sample provides 35 mg (>5 mg) of hydroxytyrosol, tyrosol or their derivatives and consequently the oil belongs to the category of oils that protect the blood lipids from oxidative stress according to the Regulation 432/2012 of the European Union.
2. The total tyrosol and hydroxytyrosol derivatives are 7 times higher than the limit of the European regulation which makes sure that 18 months after harvesting the oil will still exceed the limit provided keeping in place away from high temperature and direct sunlight.
3. It should be noted that oleocanthal, oleacein and oleuropein aglycon present important biological activity and they have been related with anti-inflammatory, antioxidant, cardioprotective and neuroprotective activity.

OVERALL EVALUATION

Based on the above presented results we can certify that it is a top quality extra virgin olive oil that stands out from the usual oils due to its high content of specific polyphenols which have major health protecting properties.

It is an oil which is recommended to all consumers looking for olive oil with enhanced antioxidant properties for health protection.

This oil has a peppery/pungent and bitter taste that is characteristic of the polyphenols which it contains.

The responsible for the scientific evaluation report

Dr.Eleni MELLIYOU



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