OLIVE OIL NEWSLETTER 2023

BAKER WINE & GRAPE ANALYSIS

What is Olive Oil Seal Certification?

Olive oil seal certification is a combination of chemical and sensory tests that are required by various governing agencies vested in certifying olive oil quality. Oils produced in California can be certified by the California Department of Food and Agriculture (CDFA) or the California Olive Oil Council (COOC). Imported oils and non-California domestic oils can be certified by the United States Department of Agriculture (USDA).

BWGA is an approved laboratory for the chemistry portion of the seal certification for olive oil producers of less than 5,000 gallons.

For 2023, the chemistry standards for Extra Virgin Olive Oil have not changed from previous years.

Certifying Agency	FFA	Per	UV K232	UV K270	UV ΔK
CDFA or COOC	≤ 0.5	≤ 15	≤ 2.4	≤ 0.22	≤ 0.01
USDA	≤ 0.8	≤ 20	≤ 2.5	≤ 0.22	≤ 0.01

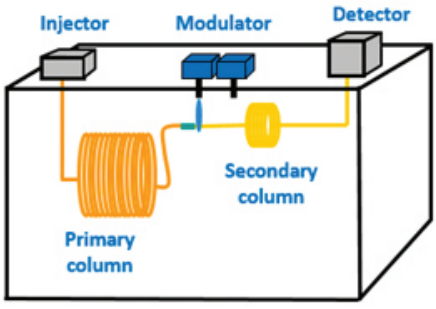
What Olive Oil Analyses are Available at BWGA?

Free Fatty Acids (FFA), Peroxide (Per), UV Absorbance (UV)	$90
FFA, Per, UV, Moisture & Volatiles (MOI)	$120
Polyphenols	$90
Best Before Date	$90
Free Fatty Acids	$37
Peroxide	$37
UV Absorbance	$37
MOI	$37
Minimum Sample Size	100 mL

Sensory Corner

Will AI replace sensory panels for EVOO organoleptic analysis?

Since the establishment of strict sensory criteria for Extra Virgin Olive Oil (EVOO) in 1991, trained tasting panels have been responsible for verifying the sensory portion for purity and quality. Sensory panels taste for defects identified by the International Olive Oil Council (IOC) such as abnormal fermentation, musty, rancid, cooking effect, soapy, metallic, earthy, winey-vinegary, as well as overall fruitiness, bitterness, and pungency of the olive oil.



Researchers are investigating an artificial intelligence (AI) Smelling Machine which uses fractional detection to isolate single compounds in high quality EVOO to quantize odors being released from volatile analytes. This would greatly expedite classification of olive oils and reduce human panel variation. But what will we do with those fancy colored tasting vessels?

For more information about the AI smelling machine and the classification of Olive Oil: Stilo, F. et al, (2021) Journal of Agricultural and Food Chemistry, 69(31), 8874-8889

From the Headlines

2022 was another exciting year for olive oil! We thought we'd share some news we found interesting—just in case you missed it.

Ancient Mosaic Floor Discovered in Gaza

An olive farmer in Gaza noticed some new trees weren't rooting well and dug down to investigate. To his amazement, he discovered a Byzantine era mosaic floor buried a few feet under the soil. Archeologists have yet to determine if the floor was part of a religious or domestic structure but the colorful tile floor depicts birds and animals and covers around 250 square feet.

Adapted from smithsonianmag.com

Feeding Olive Leaves to Sheep Increases Sheep's Milk Cheese Quality

Incorporating 28% olive leaves into sheep diets for 30 days results in 60-day aged sheep milk cheeses with higher percentages of healthy fatty acids, lower saturated fat and higher overall cheese fat content. It appears antioxidants found in olive leaves make their way into the milk, boosting the healthfulness of the cheese. No significant taste difference was found in blind tasting by a trained panel.

Diversified Farming for the Win!

To learn more visit https://www.oliveoiltimes.com/health-news/an-olive-leaves-based-diet-might-improve-sheep-cheese/115433

Global Olive Oil Trends

The global olive oil market was valued at USD 10.5 billion in 2022 and is expected to reach USD 14.9 billion by 2030.

The current top three producers of olive oil are Spain, Italy and Greece.

The worldwide cost of olive oil is increasing from a combination of greater demand and decreased production as drought is seriously impacting olive yields.

Word Search — Olive Oil Chemistry

E	P	D	O	S	E	D	A	R	G	K	P
T	T	A	R	A	N	C	I	D	A	I	E
A	L	G	L	C	C	G	T	T	O	F	M
D	P	O	I	M	S	O	L	I	O	S	I
E	O	E	R	S	I	E	O	X	S	E	T
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O	Y	U	N	C	C	D	I	T	E	I	O
F	P	S	S	E	I	Y	A	C	V	X	I
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B	E	A	E	N	D	R	B	G	O	R	C
T	N	D	A	A	I	T	T	C	C	E	U
S	O	O	R	Y	E	R	C	D	A	P	D
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B	S	E	C	I	E	A	L	Y	N	F	I

EVOO
OLEIC
CDFA
PEROXIDES
PALMITIC
TRIENE
INDUCTION TIME
STEARIC
DIENE
POLYPHENOLS
OXIDIZED
DELTA K
BEST BEFORE DATE
COOC
USDA
GRADES
GLYCEROL
STANDARDS
RANCID

Olive Varieties and Characteristics

Olive Variety	Country of Origin	Characteristics	Flavor Profiles
Picual	Spain	Most commonly used olive for oil, high level of polyphenols, light and golden color. Oil Content Yield 20-27%.	Fruity flavor with hints of almond and an aroma of apple.
Arbequina	Spain	Second most commonly used olive for oil, easily harvested, fairly low polyphenol concentration.	Milder, buttery, delicate and fruity flavor.
Hojiblanca	Spain	Third most commonly used olive for oil, hardy trees- cold and drought resistant. Oil Content Yield 17-19%.	Sweet start and bitter aftertaste with full body.
Leccino	Italy	Italy's most prominent olive for oil, thrives in cooler weather, golden color. Oil Content Yield 18-21%.	Grassy aroma, buttery consistency with peppery finish.
Frantoio	Italy	Extreme heat and cold tolerant. Oil Content Yield 23-28%.	Green grass and fruity aromas with a pleasant bitterness.
Coratina	Italy	Highly adaptable, large and round olives, high level of polyphenols. Oil Content Yield 20-25%.	Buttery smooth, robust, bold and bitter.
Koroneiki	Greece	Main olive for oil in Greece, well-suited for high density mechanical harvesting and very high yielding.	Bitter and intense flavor with a peppery finish.
Cobrancosa	Portugal	Highly productive tree, medium sized.	Intense and spicy flavor with smooth and creamy consistency.
Mission	United States	Flagship olive of the US.	Mild, fruity aroma with buttery, slightly bitter finish.

Fresh-Pressed Recipe

Olive Oil Chocolate Chip Cookies

Ingredients:

- ½ cup olive oil
- ¾ cup packed brown sugar
- ½ cup sugar
- 1 large egg
- 1 large egg yolk
- 1½ tsp vanilla
- 1 ¾ cup flour
- 1 tsp baking soda
- ½ tsp salt
- 1 cup chopped chocolate

Thoroughly whisk together olive oil and sugars in a large bowl. Whisk in egg, egg yolk and vanilla. Fold in flour, baking soda, salt and chocolate until just combined. Cover bowl and chill for 30-45 minutes until dough is firm. Preheat oven to 350°F and line two baking trays with parchment paper. Place scoops of chilled dough 2-3 inches apart onto baking trays. Bake for 10-12 minutes until edges are golden and centers are still gooey. Sprinkle tops with flaky salt if desired while cooling trays on wire racks. Enjoy!

Recipe adapted from cambreabakes.com

Send us your favorite olive oil recipes, the team at BWGA loves to cook and bake!

How Do I Ship Samples?

BWGA provides pre-paid shipping through GLS or UPS. Simply log on to your **Client Portal** at **bwga.net** and click the **Shipping** tab. Enter your ship from information and a pre-paid label will be emailed to you from the chosen carrier. Get your samples to the carrier and we'll start analysis as soon as we receive them.

Let us know if you need insulated mailers, sample containers or labels and we will be happy to send some to you.

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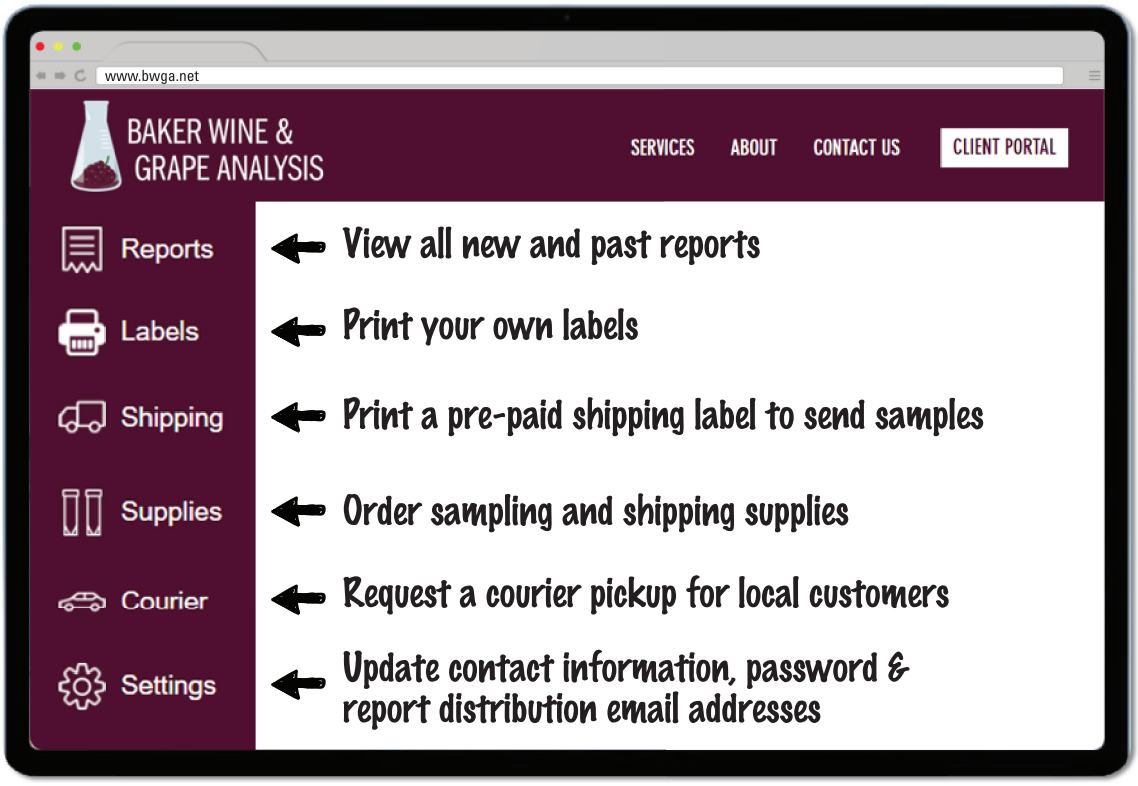
BWGA Hours

Monday - Friday: 9am - 5pm
Running late? Leave your samples in the **BWGA drop box** anytime outside of our normal business hours!
To access the drop box just open the utility closet at the left of the main doors.

Client Portal



Log into your account on the Client Portal at bwga.net and check out the features!

Updated!

NEW CUSTOMERS can sign up for an account from the Client Portal login page.