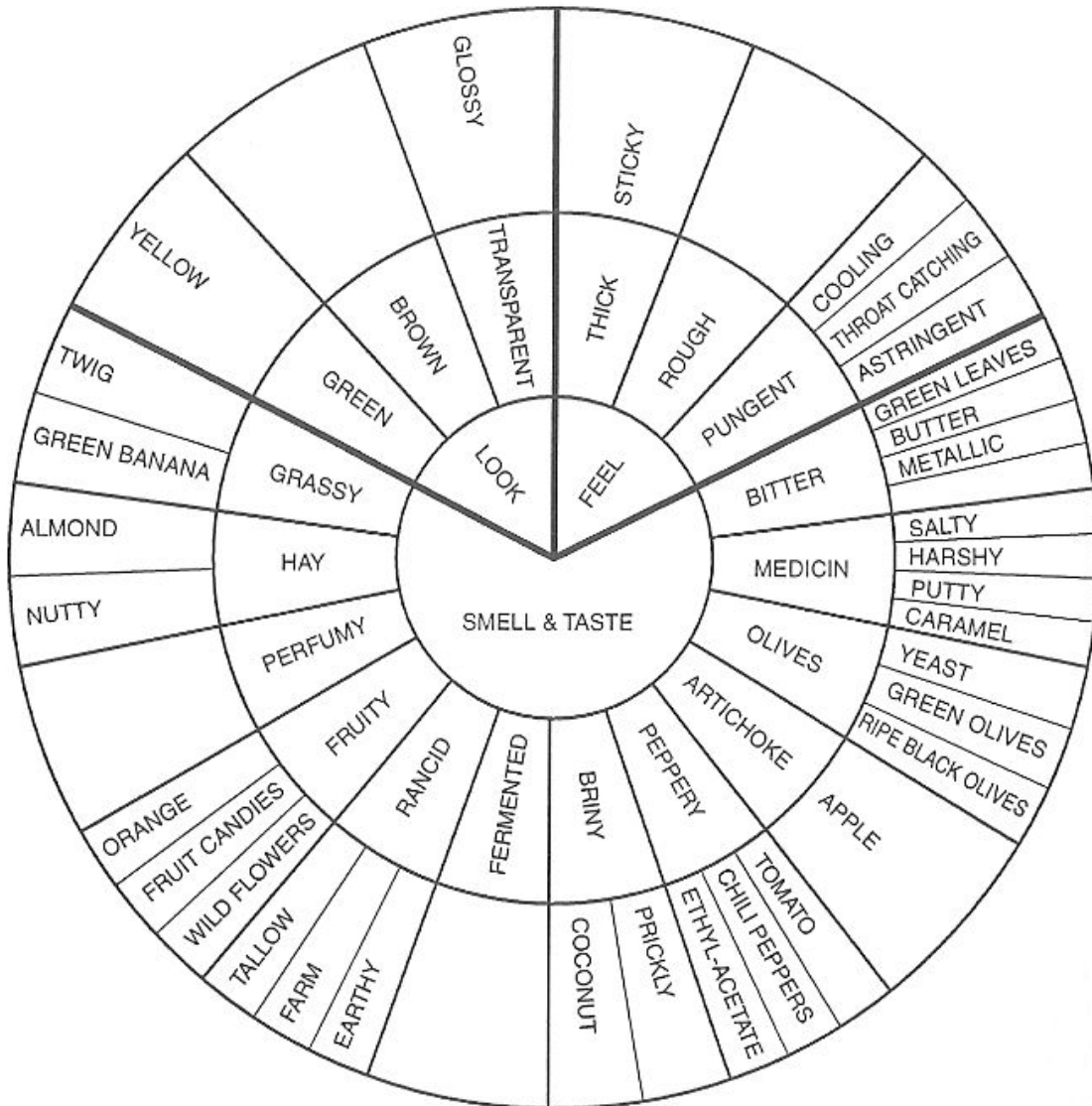


The Tasting Wheel

Put the letter associated with each olive oil anywhere on the wheel you deem appropriate.



Positive Flavor Adjectives

Apple

Almond - nutty

Artichoke: a flavor which reminds one of artichoke.

Astringent: A puckering sensation in the mouth created by tannins

Banana

Bitter: Many new to olive oil are surprised to find that this is a preferred characteristic of olive oils; usually obtained from green olives or olives turning color.

Buttery

Fresh: Good aroma, fruity, not oxidized

Fruity: an oil is fruity when its flavor and aroma are similar to that of a mature olive. If you have stood over the olive grinder or press, fruity is what you smell. Many oils initially seem fruity. This characteristic may disappear in a few months in some oils, a truly fruity oil maintains this characteristic aroma through time.

Grass: the taste of grass - seen often in green olives or those crushed with leaves and twigs

Green: A young, fresh, fruity oil. Often mixed with bitter. Spicy-bitter cough sensation at the back of the throat.

Green leaf: a sensation obtained when in the press a small quantity of fresh olive leaves are added. This is a trick which is done to approximate the genuine green taste of green olives

Harmonious: all the qualities of the oil blend and work well with

each other

Hay: Dried grass flavor

Melon, perfumy (ethyl acetate)

Musky, nutty, woody: trace characteristics which are very pleasing when not overpowering.

Peppery A peppery bite in the back of the throat which can force a cough

Pungent: A rough, burning or biting sensation in the throat - peppery

Soave: mature olives can produce this characteristic. Sweet, palatable aftertaste.

Rotund: is said of an oil with a pasty body to it which fills and satisfies without aromatic character - always from mature olives.

Sweet: The opposite to bitter, stringent or pungent. Found in mellow oils.

Negative Flavor Adjectives

Almond Associated with sweet oils with a flat scent.

Bitter: a good trait in moderation but bad if overpowering. Produced by olives that are unripe and with little meat.

Brine salty taste - oil made from brined olives

Burnt: prolonged heating during processing

Coarse

Cucumber: off flavor from prolonged storage, particularly in tin

Dirty: oils which have absorbed the unpleasant odors and flavors of the vegetable water after pressing which they have remained in contact for too long.

Dreggish: odor of warm lubricating oil and is caused by the poor or lacking execution of the decanting process.

Earthy This term is used when oil has acquired a musty humid odor because it has been pressed from unwashed, muddy olives.

Esparto Hemp-like flavor acquired when olive paste has been spread on Esparto mats. Flavors may differ according to whether the mats are green or dried.

Fiscolo: caused by the use of filtering panels which are not perfectly cleaned, and brings to mind hemp

Flat Oils which have lost their characteristic aroma and have no taste.

Frozen: due to olives which have been exposed to freezing

temperatures. When cooked, this oil gives off very unpleasant odors. **Fusty:** due to olives fermenting in piles while in storage waiting for pressing

Greasy - a diesel, gasoline or bearing grease flavor

Grubby: flavor imparted by grubs of the olive fly

Hay-wood - dried olive taste

Heated: prolonged heating during processing, burnt taste

Impersonal: a serious defect for virgin oil, because it means it has neither character nor personality. It is a trait common in all manipulated oils.

Lampantino: oil which should be sent to a refinery. When it does not present awful organic characteristics, it can be edible.

Muddy Sediment:

Musty: moldy flavor from being stored too long before pressing

Metallic Oils processed or stored with extended contact to metal surfaces.

Moldy: from unhealthy or fermented olives due to excessive storage in warehouses

Olearic Fly: oil from fruit stricken by this insect: the flavor is both rotten and putrid at the same time.

Phenic acid: pertaining to poorly kept very old oils.

Poor conservation: the oil absorbs the odors and flavors of everything surrounding it even if not in direct contact. A very common defect.

Rancid Old oils which have started oxidizing due to exposure to light or air.

Rough: Pasty, thick greasy mouth feel

Vegetable water: Stored in contact with the juice from the olive

Warmth: due to the fermentation of olives kept too long in bags.

Winey High acidic taste

Factors which play a role in the quality of olive oil

- *Health of fruit* (degree of pest and disease infestation)
- *Method and period of post-harvest fruit storage*
- *Oil extraction system* (including extraction temperatures)
- *Method and period of oil storage prior to packing*
- *Cultivar of olive*
- *Climate* (latitude of production area)
- *Cultural techniques* (irrigation, drainage, pesticide residues, etc.)
- *Soil type*
- *Harvesting method*
- *Maturity of fruit* (time of harvesting)

- *Method of fruit transport*
- *Type of packaging*
- *Period of storage in final pack prior to use*

Any weak link in the chain from the fruit on the tree to the oil in the final retail pack will impact upon the quality of the oil.

Unseemly practices in the Industry

CBC MARKETPLACE: FOOD » OLIVE OIL

Beware of the cheap olive oil impersonator

Broadcast: January 4, 2000 | Producer: Richard Wright; Researcher: Sarah Kapoor

Olive oil

Olive oil. Drizzle it, toss it, spoon it over your fish. It enriches the flavour of your food and it's cholesterol free. That's why it's one of the hottest products in the market place today.

Canadian stores stock more than 100 brands of olive oil ranging in price from more than \$40 a litre to less than \$4 a litre.

But price-conscious shoppers who purchase low-priced olive oils have to be careful. Some products that look like bargains could be fake.

Joe Di Lecce, a food specialist with the Canadian Food Inspection Agency, says "we found oils that consisted mainly of vegetable oils other than olive oil," during inspections. "Some had sunflower oil, some had canola, some had pomace oil."

Di Lecce is the CFIA's olive oil specialist. Since 1997 he has been checking out olive oils to see if they are what they're advertised to be. Di Lecce has looked at 100 oils, and found that 20 per cent are fake.

And, he says, consumers can't tell the difference just by looking at a bottle in a store. "Most of the oils look pretty good. It's very difficult for a consumer to know if something's wrong."

Di Lecce has samples analyzed by the CFIA's lab in Ottawa, where they're subjected to a battery of tests that have revealed some oils were adulterated.

Stan Bacler

"Adulteration would be the addition of cheaper grades of olive oil to an expensive grade or addition of cheaper substitute oils to olive oil to extend and increase profits," says Stan Bacler, a food chemist with the CFIA.

In some cases, says Bacler, less than half the oil in the bottle was genuine olive oil.

According to Di Lecce, once the lab tests uncovered the adulterated oils, the CFIA laid charges against the companies linked to the products.

The Agency successfully prosecuted 11 wholesale and distribution companies which sell oil to retailers right across the country. Two more prosecutions are in the works, and there will likely be more. Stan Bacler says the profits to be made from selling fake oils are enough to make the fakers very inventive.

"It's a challenge to stay one step ahead of the people doing the fraud," says Bacler. "They know after a while which tests we do and what we can detect and while we are looking for these things they're already looking for new ways in which to either fool the testing we are doing or to find different ways which cannot be detected."

Those that have been detected have paid fines ranging from \$7,000 to over \$22,000, and Joe Di Lecce thinks that's been a serious deterrent.

"We believe it to have been fairly effective (as a deterrent)," he says. "We are continuing to monitor, we are continuing to sample. The industry is aware that we are there, that we are taking action that we are seizing product and prosecuting any company we find that has adulterated olive oil ... We've not discovered any further cases of adulteration."

Di Lecce thinks the fines have worked as a deterrent

Feel safer now? You shouldn't. The Canadian Food Inspection Agency hasn't turned up any more fakes, but *Marketplace* did when we did some investigative shopping of our own.

We purchased olive oil samples at stores in Toronto and took them to a private laboratory. We bought five low priced oils, including two brands sold by companies the CFIA had already successfully prosecuted.

Technicians analyzed the samples. Their findings were dramatic.

Of the five samples tested, two turned out to be clearly adulterated according to our lab's chief chemist.

*Terra Mia and San Paulo
are two oils we tested*

The two fakes were brands distributed by companies the CFIA had prosecuted six months earlier. The Terra Mia and the San Paulo are two that we tested. They're still on the shelves.

The CFIA's Di Lecce says "it's possible that six months after the prosecution there were still some products remaining from their distribution."

But why weren't they pulled off store shelves?

"This product is in every single supermarket across the country," Di Lecce says. "It would be just too overwhelming to have a person go into every single store and find the product."

Di Lecce says that if the adulterated oils posed a health hazard the food inspection agency could order a recall, but simple fraud isn't a serious enough issue, so the fake oils stay.

Given that, what's Di Lecce's advice for consumers who want to buy bona fide olive oil?

"Buy a brand that you recognize, buy a brand that's been established, don't let price be your only guide, talk to people who have purchased the product before, and just [remember] 'buyer beware' ... and you should be okay."

Adulterated oils:

Olivio (from Greece)
Terra Mia extra virgin
Ricetta Antica extra virgin
San Paolo
San Paolo extra virgin
Andy's Pure Olive Oil
Italico extra virgin

Distributors caught:

Cher-Mor Foods International
AMT Fine Foods
Siena Foods Ltd.
Lonath International
Bella International Food Brokers
Les Aliments MIA Food Distributing
D & G Foods
Deluca Brothers International
Kalamata Foods

Mario Sardo Sales Inc.

Feds seize truckload of fake olive oil

February 9, 2006

NEWARK, N.J. --More than a discerning palate has determined that thousands of cans of Hermes and San Giovanni brands of extra virgin olive oil weren't quite right.

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The U.S. Food and Drug Administration tested the chemical composition of the oil and found it was really less expensive soybean oil, prompting Thursday's seizure.

The U.S. Marshals Service seized 22,700 gallons of oil, imported from Italy, at a trucking company warehouse in Clifton.

"It is a whole lot of faux olive oil," said Mike Drewniak, a spokesman for U.S. Attorney Christopher Christie.

The labels on the 3-liter tins in 4,855 cases said the contents were more expensive extra virgin olive oil or pomace olive oil.

Because olive oil is five to six times more expensive than soybean oil, the potential estimated profit is about \$105,600, according to the FDA.

"We will not permit New Jersey consumers to be defrauded," Christie said in a statement.

The tainted oil includes Hermes' brand of extra virgin olive oil and pomace oil and San Giovanni's brand of extra virgin oil. The cans remain at the warehouse in Clifton under a state-ordered embargo.

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New tests can spot fake olive oil

Scientists have developed a test to tell real virgin olive oil from cheaper products.

The recent popularity of Mediterranean cooking has meant a big demand for high-quality extra virgin olive oil.

Importers of low-grade oils have cashed in by misleadingly packaging their products as high-grade oil.

Loughborough University academics have developed a technique called "optical fingerprinting", which can distinguish between real and fake virgin olive oil.

Familiar product

The real product, renowned for its taste and its nutritional benefits, has become a familiar item on supermarket shelves.

The low-quality oils have been flooding the market, duping customers and threatening the livelihood of producers of the top quality product.

The olive oil test was developed in the university's department of electronic and electrical engineering.

It uses the same device used in medicine to determine the concentration of oxygen in the blood.

Extra Virgin Olive Oil: Great to Taste, Easy to Fake

Fraud remains rife in the olive-oil industry despite some attempts at stricter enforcement from the Italian government, reports [Tom Mueller in the New Yorker](#). The prestige of extra-virgin oil comes from strict production requirements that separate it from less flavorful olive oils. Yet extra-virgin oil is also easy to fake, either by combining some extra-virgin oil with another oil, adding colorings to it or simply mislabeling its origin.

Those practices are especially common in Italy, the world's leading importer, consumer and processor of olive oil, says Mr. Mueller. The country's agriculture minister, Paolo De Castro, tells Mr. Mueller that the fraud is being curbed thanks to the government's quality-control measures, backed by the strong arm of the Carabinieri, Italy's paramilitary police force. In April, Italy's agriculture minister announced that 205 olive-oil producers out of 757 his ministry investigated were guilty of adulterating and falsely labeling their olive oil, along with other infractions. The adjudications of the cases are still years away, says Mr. Mueller.

Chemical tests can catch unsophisticated olive-oil scams, such as the

one in 2005 when the Italian government confiscated about 26,000 gallons of fake olive oil worth \$8 million. A criminal ring operating across Italy had allegedly colored canola oil with chlorophyll, added flavoring and sold it in northern Italy and Germany.

But more sophisticated counterfeiters can pass laboratory tests. The European Union and the Italian government have turned to tasting panels to catch them. The human tasters, which Mr. Mueller says few criminals can outwit, ensure oil doesn't contain 16 official taste flaws, including "musty," "cucumber," and "grubby." However, Italy's nine official tasting panels rarely test an oil before it is on the market. Furthermore, producers often successfully appeal panels' decisions by saying the samples were incorrectly stored, or else going to another panel for a more favorable judgment. — *Robin Moroney*

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Olive Oil, or Snake Oil?

Is the olive oil you're using really olive oil? According to the *New Yorker*, chances are good that what's in that bottle is cut with hazelnut, sunflower seed, or canola oil.

Trafficking in adulterated olive oil has been a problem unto antiquity. Italian authorities are trying to change that, the country's agricultural minister tells the *New Yorker*. In April, he announced that 205 olive oil producers out of 757 investigated were guilty of cutting their olive oil with other products, and would be prosecuted. One recent investigation broke up a ring using soy and canola oils colored with industrial chlorophyll and packaged in extra-virgin olive oil tins "emblazoned with pictures of Italian flags or Mt. Vesuvius, and with folksy names of imaginary producers—the Farmhouse, the Ancient Millstones."

It's not just made-up brands that are accused; leading companies like Carapelli, Bertolli, and Rubino have been caught with less-than-pure oil. "In 1997 and 1998, olive oil was the most adulterated agricultural product in the European Union," the *New Yorker* says. One investigator tells the writer that profits for this snake oil "were comparable to cocaine trafficking, with none of the risks."

Alison Benjamin over at food blog the [Cleaner Plate Club](#) is ticked:

[T]here's some serious heart disease in [my husband] Blair's family, and—since we want him around for a long, long time—we're very aware of what kind of oil we're using on a regular basis. The idea that someone could be tricking us into a less-healthy alternative just feels like an entire industry is flipping us the bird.

So how can we tell if what we're buying is really olive oil? According to [Squidoo](#), be suspicious of low prices, and look for imported oils certified by the International Olive Oil Council. Olive oil made in California must also adhere to strict [labeling laws](#).

Trusting the authorities on these matters never leaves a good taste in my mouth, however. Maybe buying local, from a farmers' market supplier you can talk to face-to-face, is the best option.

In 1997 and 1998, olive oil was the most adulterated agricultural product in the European Union, prompting the E.U.'s anti-fraud office to establish an olive-oil task force. (“Profits were comparable to cocaine trafficking, with none of the risks,” one investigator told me.) The E.U. also began phasing out subsidies for olive-oil producers and bottlers, in an effort to reduce crime, and after a few years it disbanded the task force. Yet fraud remains a major international problem: olive oil is far more valuable than most other vegetable oils, but it is costly and time-consuming to produce—and surprisingly easy to doctor. Adulteration is especially common in Italy, the world's leading importer, consumer, and exporter of olive oil. (For the past ten years, Spain has produced more oil than Italy, but much of it is shipped to Italy for packaging and is sold, legally, as Italian oil.) “The vast majority of frauds uncovered in the food-and-beverage sector involve this product,” Colonel Leopoldo Maria De Filippi, the commander for the northern half of Italy of the N.A.S. Carabinieri, an anti-adulteration group run under the auspices of the Ministry of Health, told me.

In Puglia, which produces about forty per cent of Italy's olives, growers have been in a near-constant state of crisis for more than a decade. “Thousands of olive-oil producers are victims of this ‘drugged’ market,” Antonio Barile, the president of the Puglia chapter of a major farmers' union, told me, referring to illegal importations of seed oils and cheap olive oil from outside the E.U., which undercut local farmers. Instead of supporting small growers who make distinctive, premium oils, the Italian

government has consistently encouraged quantity over quality, to the benefit of large companies that sell bulk oil. It has not implemented a national plan for oil production, has employed a byzantine system for distributing agricultural subsidies, and has often failed to enforce Italian laws and E.U. regulations intended to prevent fraud. The government has been so lax in pursuing some oil crimes that it can seem complicit. In 2000, the European Court of Auditors reported that Italy was responsible for eighty-seven per cent of misappropriated E.U. subsidies to olive-oil bottlers in the preceding fifteen years, and that the government had recovered only a fraction of the money.

Paolo De Castro, who was appointed Italy's agriculture minister in 2006, told me that olive-oil fraud has been a problem in the past but that he was taking action to curb it. "In the past few years, we have tightened things up a lot, through our Inspectorate for Quality Control, and through our *carabinieri* corps," he said. One problem is that Italian officials charged with detecting adulterated oil can, in theory, be held liable for their actions. "Who's going to take this responsibility?" asked Lanfranco Conte, a professor of food chemistry at the University of Udine, who in the early nineties was the head of a laboratory belonging to the Agriculture Ministry's anti-fraud unit. "If you decide to block three thousand tons of oil and it turns out you were wrong, you pay out of your own pocket." Colonel De Filippi acknowledged that some companies are essentially immune to investigation. "Unfortunately, there are big producers who have strong political ties," he said.

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