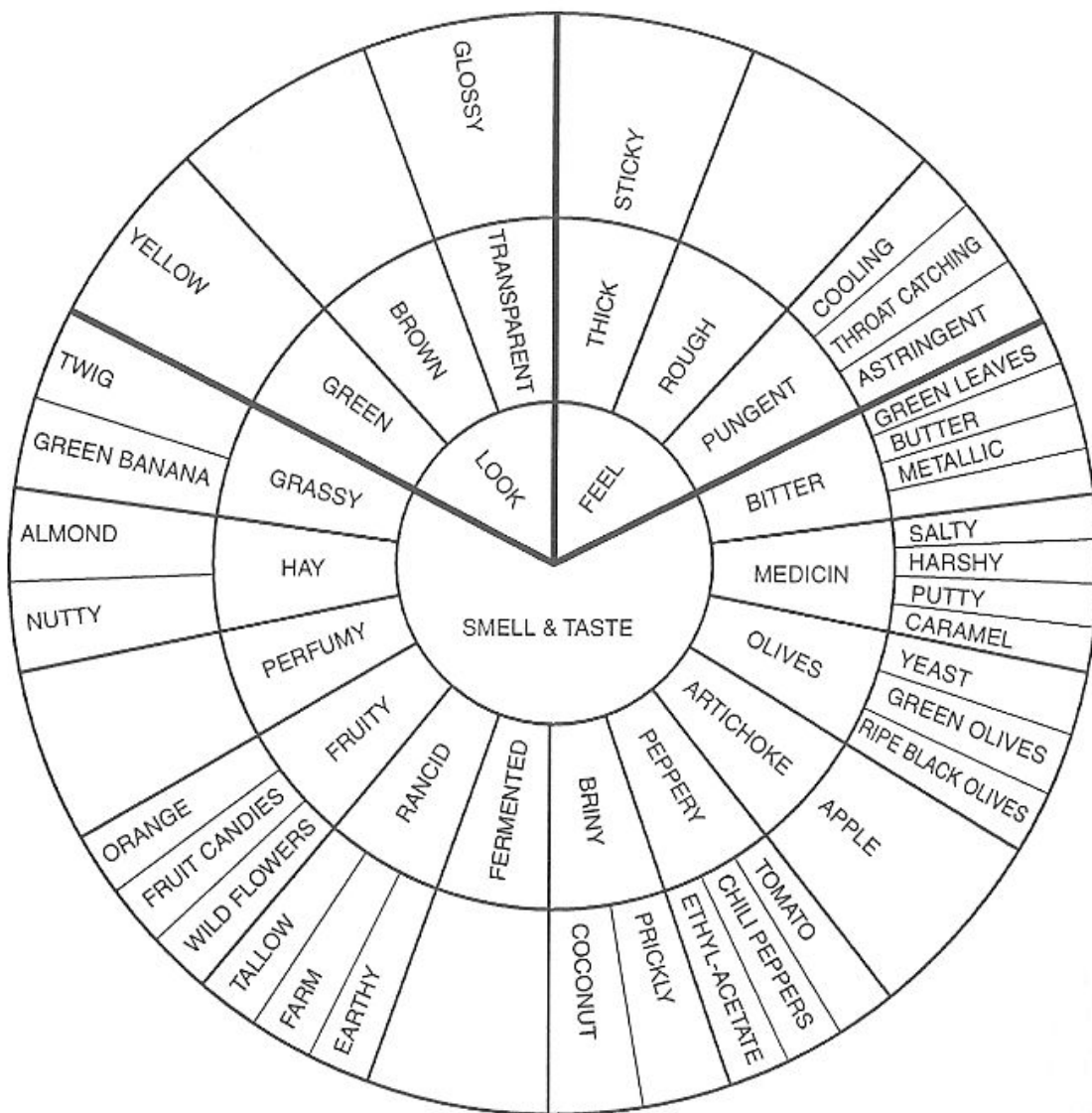


Name _____

The Tasting Wheel

Put the letter associated with each olive oil anywhere on the wheel that is the best describes sensations.



Favorite flight 1 Favorite flight2 Favorite flight 3

Basic facts about olive oil

Extra-virgin olive oil comes from the first pressing of the olives, contains no more than 0.8% acidity, and is judged to have a superior taste. There can be no refined oil in extra-virgin olive oil.

Pure olive oil. Oils labeled as *Pure olive oil* or *Olive oil* are usually a blend of refined olive oil and one of the above two categories of virgin olive oil.

"100% Pure Olive Oil" is often the lowest quality available in a retail store: better grades would have "virgin" on the label.

Over 50% of the oil produced in the Mediterranean area is of such poor quality that it must be refined to produce an edible product. Note that no solvents have been used to extract the oil but it has been refined with the use of charcoal and other chemical and physical filters. An obsolete equivalent is "pure olive oil"

Colour - In general, the greener the oil, the less ripe the olives (higher in chlorophyll). The more golden the oil, the more ripe the olives (higher in Beta-carotene)

Label wording

Olive oil vendors choose the wording on their labels very carefully.

"100% **Pure Olive Oil**" is often the lowest quality available in a retail store: better grades would have "virgin" on the label.

"**Made from refined olive oils**" suggests that the essence was captured, but in fact means that the taste and acidity were chemically produced.

"Light olive oil" actually means refined olive oil, not a lower fat content. All olive oil has 120 [calories](#) per tablespoon (34 J/ml).

"From hand-picked olives" may indicate that the oil is of better quality, since producers harvesting olives by mechanical methods are inclined to leave olives to over-ripen in order to increase yield.

"Bottled in Italy" or "Packed in Italy" does not necessarily mean that the olive oil originated in Italy. Back or side labels indicate the origin of the olive oil which is often a mixture of oils from several nations[6].



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*
- *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. 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."

"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.

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.

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.

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*

Analysis	IOOC limit (EV)	Average	Effect	Comments
Oleic Acid	55-83%	74%	Health Shelf life	<ul style="list-style-type: none"> ▪ The major fatty acid in olive oil ▪ A high level of monounsaturated fat considered healthful ▪ High level improves shelf life
Free fatty acid	0.8%	0.19 – 0.28	Culinary Quality	<ul style="list-style-type: none"> ▪ General measure of olive oil quality. Oils quickly processed after harvesting will have low FFA ▪ Higher FFA (particularly >0.5%) increases probability of a taste defect ▪ Oils with low FFA smoke at a higher temperature ▪ FFA remains stable as the oil ages
Polyphenol	Not applicable	190 ppm (median)	Style Culinary Shelf life Health	<ul style="list-style-type: none"> ▪ In general the higher the polyphenol count the more bitter and/or robust the oil ▪ Bitterness and pungency are primary determinants of the appropriateness of the oil in cooking ▪ High polyphenols improve shelf life of oil ▪ Polyphenols are antioxidants, which are considered to be healthful ▪ Declines as oil ages
Peroxide	20 mEq/Kg	8.8 b	Shelf life	<ul style="list-style-type: none"> ▪ Measurement of the active oxygen in the oil – in the primary stage of oxidization ▪ A high peroxide level in young oils suggests a short shelf life ▪ Declines with oil age

