

TasteBook™ Round 5 Tasting Kit attached.

Thank you for registering to participate in TasteBook™ Round 5. I hope all of you have received your 4 Picual samples by now. If you have not received them, please let me know.

TasteBook™ Round 5 on-line Survey Monkey response form will be 'live' from 27th June through to 19th July (3 weeks).

Note: Registered participants may share their tasting samples and experiences with family, friends and staff – simply submit a Survey Monkey return for each taster.

Instructions for TasteBook™ Round 5 Participants:

Please refer to the attached TasteBook™ 5 tasting notes.

1. Preparation for sensory evaluation:

- No perfume, aftershave or lipstick.
- Don't taste oils and olives on an empty stomach. The salt content in the body is depleted, resulting in an inaccurate assessment of the oils and table olives.
- Don't taste after a hard day at the office or after shouting at the husband or kids. Grumpiness leads to a state of negativity, directing us to a conclusion that all the oils and table olives we are tasting are no good. Please keep an open mind. Remember that someone has nurtured this fruit from the tree to the mill, and it must be respected. Sit down in a comfortable chair, relax and have your glass of water and apple ready, plus a note pad and pen.

2. Read the attached TasteBook™ notes on olive oil

3. Follow this procedure for sensory evaluation of EVOO:

- Ensure the mouth has been rinsed using plain or mineral water, and cleansed with a slice of green apple.
- Pour the EVOO samples into a small glass tumbler – preferably coloured glasses to disguise the colour of the oil which is not relevant to judging.
- Warm the oil if the room is not at an ambient temperature of 28 deg C.
- Hold the cup to the nose. Do not allow the nose to penetrate inside the tasting cup when sniffing. What do I smell? Green grass, herbs, tropical fruits, floral bouquet, etc. Make a note. Each individual judge is different, however, more than 30 seconds can influence the decision making.
- Sip the oil through the front teeth and roll around the palate, allowing the fruit flavours and bitterness to develop. Swallow some oil. Pungency should be felt at the back of the throat. Sometimes instantaneously, sometimes delayed.
- Finally, evaluate your thoughts on the taste. Was it fruity or sweet? Herbaceous? Is there any complexity of the oil? Is the oil taste and flavour

lingering in the mouth? Are you feeling happy after tasting one of the oils? Do you want to gift that oil to your friend and family to share the joy?

Finally, please complete the SurveyMonkey questionnaire here for each sample.

<https://www.surveymonkey.com/r/F2NQT6Y>

If you have any questions or troubles, please do not hesitate to contact me.

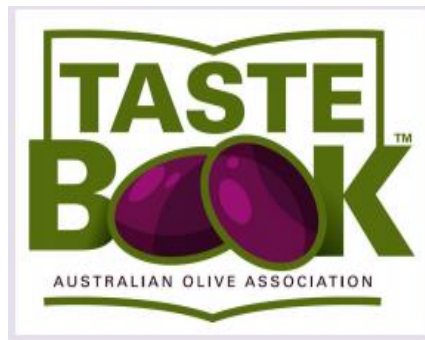
Looking forward to receiving your answers shortly.

Many thanks,

Soumi Paul Mukhopadhyay

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TasteBook™ Round 5

The Australian Olive Industry Sensory Training Program



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NSW Department of Primary Industries



**Department of
Primary Industries**

**Hort
Innovation**
Strategic levy investment

**OLIVE
FUND**

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Introduction

The Australian olive industry produces olives that are used to make oils (predominantly for human consumption, but also for a range of industrial purposes) and table olives. Extra virgin olive oil (EVOO) is a monounsaturated fat, high in antioxidants and regarded as one of the healthiest edible oils. The Australian olive oil industry, while small on a global scale, has the benefit of being modernised and is thus able to produce a consistently high quality product when compared to the traditional producing countries in the Mediterranean.

TasteBook™ is a sensory training initiative, the first of its kind in Australia, which shares the experience of appreciating, describing and understanding the sensory quality of EVOO and table olives from a national perspective. This project will ensure the Australian olive industry is equipped with the necessary skills to enable ongoing monitoring of the sensory attributes of EVOO and table olives aligned with industry specifications for quality.

This program brings together sensory panellists, olive oil show judges, growers and producers to assess and evaluate the same samples comfortably wherever they are. They can then provide valuable insight for describing the oil and the olives, as well as the style, quality and potential uses of the products. The aim is to expose industry participants to regular sensory experiences and palate calibration for olive products both nationally and internationally, to improve their understanding of how to appreciate and judge these products and achieve consistent product quality and excellence for Australian EVOO and table olive products.

The overall objectives of the project are to help Hort Innovation and the Australian olive industry to provide a series of integrated staged (beginner – intermediate – expert) training programs to support not only maintaining the ongoing knowledge of nationally and internationally accredited sensory panellists and competition judges; but also encouraging new entrants or educating beginners on how to actively fit the quality, flavour and presentation of extra virgin olive oil (EVOO) and table olives (TO) to match evolving and increasing market demands.

In summary, the TasteBook™ workshop aims to:

1. Provide regular tasting experiences and training to upskill an expanded pool of Australian EVOO and table olive judges.
2. Facilitate improved industry awareness, knowledge, skills and capacity in sensory assessment of EVOO, table olives and other olive products.
3. Enhance a culture of continuous improvement and excellence in the Australian olive industry.

TasteBook™ discussion notes and important definitions

Olive oil attribute definitions

The formal definitions from the International Olive Council (IOC) profile sheet for EVOO are:

Fruity

- A set of olfactory sensations characteristic of the oil that depends on the variety and come from sound, fresh olives, either ripe or unripe.
- It is perceived directly and/or through the back of the nose.
- It also consists of the flavours of the oil perceived in the mouth.

Bitter

- The characteristic primary taste of oil obtained from green olives or olives changing colour.
- It is perceived in the circumvallate or the 'V' region of the tongue.
- Not to be confused with sour (coffee is bitter, lemon is sour).

Pungency

- A biting tactile sensation characteristic of oils produced at the start of the crop year, primarily from olives that are still unripe.
- It can be perceived throughout the whole of the mouth cavity, particularly in the throat.
- Pungency is a physical warm sensation (for example, chilli is pungent)
- Not to be confused with bitter (bitter is a flavour)

Olive oils have fruit, bitterness and pungency

- When the fruit, bitterness and pungency characteristics of olive oils are intense, the oils are described as 'robust', and will usually be from early season harvest.
- The oils that are described as 'medium' or 'mild' are riper oils and they have less intense characteristics of fruit, bitterness and pungency.
- 'Delicate' oils are those that are usually picked late in the season. In an excellent sample, the fruit flavours can be subtle and at the same time there will be minimum bitterness or pungency.

The question: Is EVOO still EVOO when there is no bitterness or pungency? The answer is YES, because the critical controls are the presence of fruit characteristics and the absence of faults.

The International Olive Council (IOC) has another two categories; 'green' and 'ripe'. When we think of 'green' (which is generally where 'robust' sits), some of the words we might think about include:

Almond, artichoke, balance, bitter herbs, chilli, excellent, good, grass, green apple, green banana, harmony, intense, lingering, pea shoots, pepper spice, salad leaf, short, tomato vine, tomato leaf, very good.

Some of the descriptors one might associate with 'ripe' include 'tropical fruit notes', including but not limited to apple, passionfruit, pear, pineapple, ripe tomato and ripe banana. These oils may have less intense bitterness and pungency and are described as medium or mild.

Delicate oils have almost no bitterness or pungency and the "fruit taste" can be perceived as confectionary, floral, or mild berries.

In each of the **robust**, **mild** and **delicate** categories, in the context of EVOO show judging in Australia:

- Good examples are awarded Bronze medals
- Very good examples are awarded Silver medals
- Excellent examples are awarded Gold medals.

Characteristics of an extra virgin olive oil (EVOO)

All olive oils are subject to the same chemical analysis and sensory evaluation. However, they will not all taste the same. Many factors will affect the oil aroma and flavour including:

- Olive varieties
- Soil and climate
- Time of harvest
- Storage of fruit between harvest and processing
- Processing and storage of oil

When practising olive oil tasting:

Please remember the following primary considerations:

- Aroma (olfactory sensations)
- Flavour (gustatory sensations)
- Consistency
- Complexity/persistence (balance and harmony)

Aroma

We can have more than 3,000 aromas in our sensory memory. We can smell fresh, fruity and intense aromas, the same as we can smell if the oil is becoming tired, ageing or if there is a fault or defect, such as rancidity, mustiness or fustiness.

Flavour

Fresh oils have the highest level of flavour. Characteristics of the olive fruit will dominate, however, flavours can also be herbaceous or may include vine, tomatoes, citrus, fresh vegetables or nuts, or tropical fruits. As you swallow, you will become aware of other sensations, such as bitterness, followed by pungency or piquancy.

Note that personal preferences are to be dismissed when judging oil. Descriptions of flavours can be divided between positive and negative attributes.

Consistency

Consistency applies to both judges and the oil. Judges should strive for consistency when judging oil. It is disconcerting when one judge at a table wants to award a gold medal whilst another judge claims that particular oil is faulty. There must be a complimentary consistency between aroma and flavour, which leads to a balance and harmony in the oil.

Complexity/persistence

Complex – multi dimensional, balanced or harmonious.

Persistence – long lasting with a pleasant aftertaste.

Or

Overly bitter, peppery or pungent, unbalanced

Short finish, unpleasant aftertaste

Classification of olive oils under the Australian Standard (AS5264-2011®)

Extra Virgin Olive Oil (EVOO) – is an unrefined olive oil containing no more than 0.8% oleic acid. It should have a distinct fresh nose and flavour, and a light, but strong, peppery finish. There should be fruitiness (Median of Fruitiness > 0) and no undesirable defects.

Virgin Olive Oil (VOO) – has greater than 0.8% and no more than 2% free oleic acid content. The aroma and flavour is less intense than EVOO. There should be fruitiness (Median of Fruitiness > 0) but may have mild defects (Median of Defects ≤ 2.5).

Under the Australian Standard, the oleic acid content of olive oil can be between 53% and 85%. The higher the % oleic acid (a mono-unsaturated fatty acid), the higher is the oxidative stability of the oil. The higher is the free fatty acid (FFA), the more rapidly the oil will oxidise and produce the rancid defect. Growers often confuse between FFA and FAP-oleic acid.

Lampante – has free oleic acid content greater than 2%, and is past its use by date, with obvious defects (Median of Defects > 2.5).

Positive attributes

Apple/green apple – indicative of certain olive varieties

Almond – nutty (fresh not oxidised)

Artichoke – green flavour

Astringent – puckering sensation in mouth created by tannins; often associated with bitter, robust oils

Banana – ripe and unripe banana fruit

Bitter – considered a positive attribute because it is indicative of fresh olive fruit

Buttery – creamy, smooth sensation on palate

Eucalyptus – aroma of specific olive varieties

Floral – perfume/aroma of flowers

Forest – fresh aroma reminiscent of forest floor, not dirty

Fresh – good aroma, fruity, not oxidised

Fruity – refers to the aroma of fresh olive fruit, which is perceived through the nostrils and retronasally when the oil is in one's mouth

Grass – the aroma of fresh-cut (mowed) grass

Green/greenly – aroma/flavour of unripe olives

Green tea – characteristic of some unripe olive varieties

Harmonious – balance among the oil's characteristics with none overpowering the others

Hay/straw – dried grass flavour

Herbaceous – unripe olive fruit reminiscent of fresh green herbs

Peppery/pungent – stinging sensation in the throat that can force a cough

Piquant – pleasantly pungent, tart or biting in taste

Ripely – aroma/flavour of ripe olive fruit

Round/rotund – a balanced, mouth-filling sensation of harmonious flavours

Spice – aroma/flavour of seasonings such as cinnamon, allspice (but not herbs or pepper)

Sweet – not sugary, characteristic of delicate oils

Tomato/tomato leaf – indicative of certain olive varieties

Tropical – indicative of ripe olive fruit with nuances of melon, mango, and coconut

Walnut/walnut shell – nutty (fresh not oxidised)

Wheatgrass – strong flavour of some green olive fruit

Woody – indicative of olive varieties with large pits

Sensory evaluation/organoleptic testing of EVOO

The IOC recommends no more than 30 seconds on the nose. Even accounting for individual differences, more than 30 seconds can influence decision making. The process for tasting is:

1. Ensure the mouth has been rinsed in plain or mineral water and cleansed with a slice of apple.
2. Relax and drop the shoulders.
3. Hold the blue sample cups in your palm and warm the oil (please see the demonstration by the facilitator).
4. Hold the cup to the nose. Do not allow the nose to penetrate inside the tasting cup when sniffing. Think to yourself; what do I smell? (please refer to the page number 7-8 in this workbook for identifying positive attributes). Make a note.
5. Sip the oil through the front teeth and roll around the palate, allowing the fruit flavours and bitterness to develop. Swallow some oil. Pungency should be felt at the back of the throat, sometimes instantaneously, although not always.
6. Finally, evaluate your thoughts on the taste. Was it fruity or sweet? Herbaceous? Was a fault detected? Rancid, winy, fusty, musty, generally unpalatable. Make a decision and note it down. Write what you feel. Learning to taste oil as a judge, grower or just someone who has an interest takes time, and is a never-ending process.

Olive oil fault/defect definitions

Defects due to fruit condition

If the tasting panel agrees that it can detect any of the following negative undesirable defects then the product is not EVOO.

Fusty: is typical of olive pomace paste, tapenade, olive mill waste pond, and black pickled mushy olives. Fustiness results from ripe olives, especially if stored in piles, sacks, overfilled crates or poorly ventilated containers warm up and allow anaerobic (without air) fermentation to develop. Growth of bacteria (e.g. *Enterobacter*, *Clostridium* and *Pseudomonas*) allows fustiness to develop within three or four days. Ideally, olives should be stored in shallow containers (no deeper than 300 mm) that allow airflow from all sides. The fustiness defect is associated with n-octane, generated from the decomposition of 10-hydroperoxide and isoamyl alcohol formed during fermentation.

Musty: is typical of sweaty socks, gym clothes bag, wet carpet, mouldy hay, yeasty and mushrooms. The musty defect comes from fruit in which large numbers of fungi, moulds (*Penicillium*, *Aspergillus*) and yeasts have developed when stored in humid conditions, especially in piles. Mustiness can set in after four to six days under poor storage conditions.

Winey/vinegary/acid/sour: this defect is typical of fermented red apples, nail polish, solvent, or yeasts. The perceived flavour is similar to wine and vinegar due to aerobic (with air) fermentation in the olives where storage yeasts predominates over some bacteria. Sugars are converted to ethanol (alcohol) to acetic acid to ethyl acetate (aromatic ester).

Frosty: vanilla, wet wood, wet hay and stewed fruit.

Dried and mummified fruit: defective olive oil can have characteristics of dry hay, pips (stones), wood or mouldy straw. Oil made from mummified fruit (old fruit from previous years), fruit affected by drought or desiccated through extended cool room refrigeration can have this defect. Olives diseased with anthracnose (partly mummified) drop prematurely from trees resulting in yield loss and when pressed they produce a very turbid and highly acidic reddish poor quality oil.

Grubby: a distinctive dirty flavour, obtained from olives that have been heavily attacked by olive fly (*Bactocera oleae*). The olive fly lays eggs in the developing olive and the larvae feed on the pulp. Olive fly increases the free fatty acid content.

Earthy: an earthy sensation, dirty, sandy feel in the mouth. Olives collected with earth or mud on them and not washed properly or from washing with dirty dam water.

Briny: the flavour of olive oil produced from olives preserved in brine.

Defects due to crushing/malaxation process

Metallic: the sensation of metals, tins, rusty nails and grinding dust. Oil can have a metallic flavour if it has been in prolonged contact with metallic surfaces during crushing, mixing, pressing or storage. New equipment or equipment starting up for the first time in the season may impart metallic flavours to the oil.

Burnt/heated is the sensation of burnt caramel, honey, boiled vegetables. This defective flavour is caused by excessive temperature and/or prolonged heating during processing, especially crushing and malaxation.

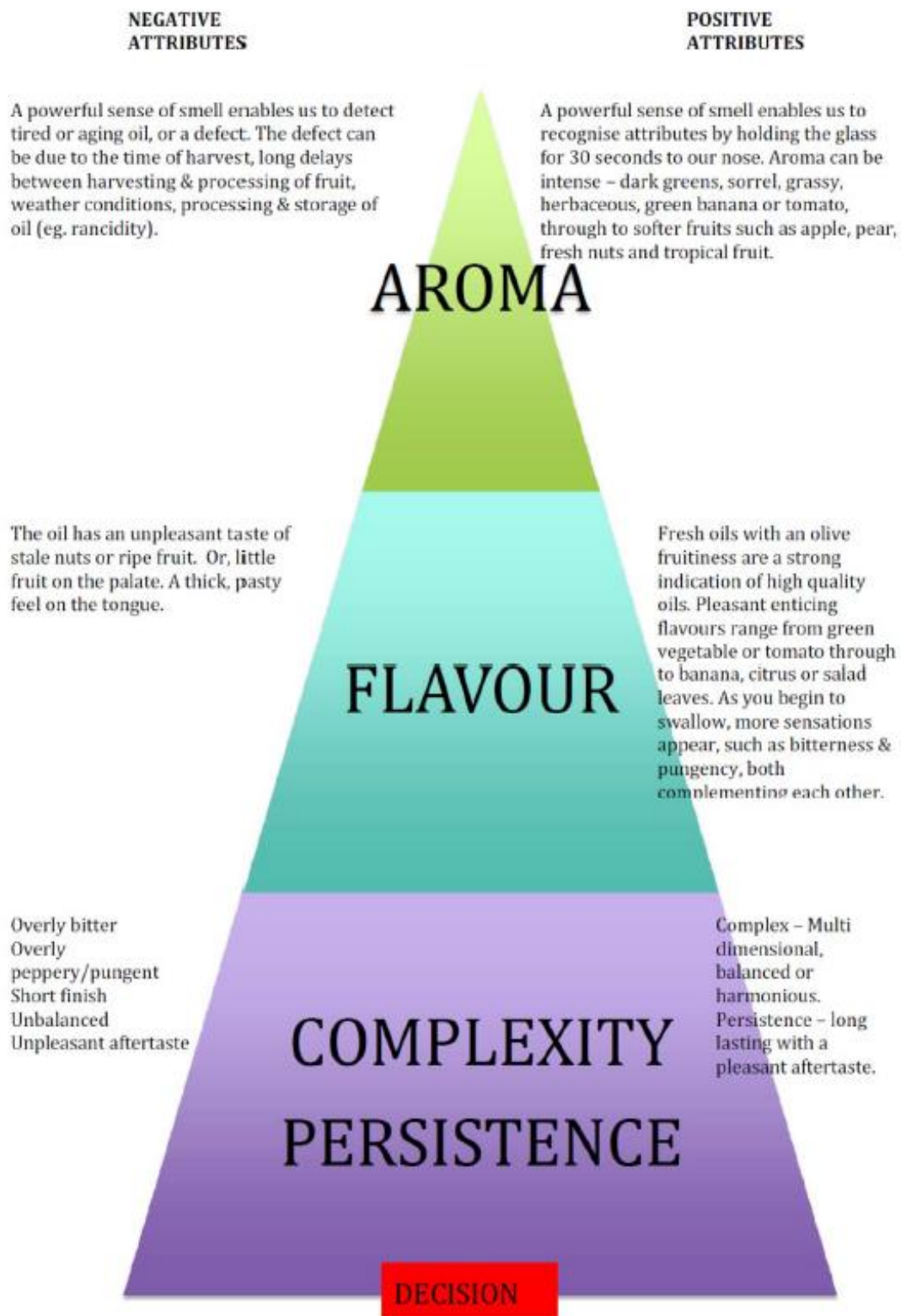
Vegetable water: Olive oil has a flavour reminiscent of vegetable water due to prolonged contact with olive mill water

Defects due to olive oil storage

Rancid: this defect is typical of old oils, stale walnuts, old butter, meats, wax crayons, old lipstick and putty.

Muddy sediment: this defect is reminiscent of salami, bacon, fetid milk, baby vomit, sewer dregs, and cheese. Muddy sediment refers to the taste imparted into oils that sit over the bottom of tanks for prolonged periods. Sediment is made up of plant debris, enzymes, proteins and glucosides, and it forms at the bottom of containers and can give the oil the flavour of vegetable water, or a putrid effect if the dregs undergo anaerobic fermentation. As little as 0.5% sediment can be a problem. Excessive contact of oil with sediment can increase the free fatty acid content, lowering the oil quality.

Greasy: affected olive oil has the taste and mouth feel reminiscent of diesel oil, grease or mineral oil.



The sensory experience of an EVOO

Extra Virgin Olive Oil (EVOO) Descriptor Training

Each description should include information from each of the sections below.

	Things to look for	Comments
Aroma	First impression (Clean or possible fault), Fresh or not fresh?	
	Intensity (Pronounced or low - lots of or little aroma, powerful, good/bad, hard to smell, closed)	
	What does it smell like? Green, tropical, tomato, dried herb? Need at least 3 descriptors.	
Flavour	Intensity (lots or little flavour, powerful, good/bad, hard to taste?)	
	Flavour transfer: Does the taste reflect the aroma?	
	What does it taste like? Note flavours. Need at least 1 extra descriptor if possible.	
	Quality (fresh, balanced, complex, interesting, lots going on, simple, boring). Note possible faults here.	
Mouthfeel	Mouthfeel (light, heavy, oily, astringent, pepper, bitterness, dry mouth), short or long aftertaste	
Final tasting comment:		

A description example:

	Things to look for	Comments (an example)
Aroma	First impression (Clean or possible fault), Fresh or not fresh?	<i>Clean, fresh.</i>
	Intensity (Pronounced or low - lots of or little aroma, powerful, good/bad, hard to smell, closed)	<i>Pronounced intensity.</i>
	What does it smell like? Green, tropical, tomato, dried herb? Need at least 3 descriptors.	<i>Ripe tomato flesh, passionfruit, green herb.</i>
Flavour	Intensity (lots or little flavour, powerful, good/bad, hard to taste?)	<i>Intense/strong flavours on palate</i>
	Flavour transfer: Does the taste reflect the aroma?	<i>Good flavour transfer.</i>
	What does it taste like? Note flavours. Need at least 1 extra descriptor if possible.	<i>Same as nose with mango notes.</i>
	Quality (fresh, balanced, complex, interesting, lots going on, simple, boring). Note possible faults here.	<i>Complex, many layers,</i>
Mouthfeel	Mouthfeel (light, heavy, oily, astringent, pepper, bitterness, dry mouth), short or long aftertaste	<i>Light mouthfeel. Mild pepper, touch of bitterness. Long flavourful length.</i>

Final tasting comment would read:

Fresh clean oil with pronounced fruit intensity. Strong aromas of ripe tomato flesh, passionfruit and green herb on the nose follow onto the palate with the addition of mango notes. Complex oil with a light mouthfeel, mild pepper and a touch of bitterness. Long flavourful length.

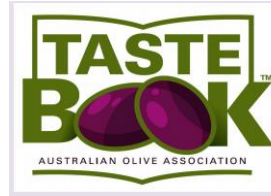


**Thank very much for participating in
TasteBook™ Round 5, we hope it was a
valuable learning experience for you and
you had a great time!**

This workshop program has been funded by Hort Innovation, using the Hort Innovation olive research and development levy, co-investment from the NSW Department of Primary Industries, the Australian Olive Association and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.



Department of
Primary Industries



**Hort
Innovation**
Strategic levy investment

**OLIVE
FUND**



TasteBook Round 5- Picual

Dr Soumi Paul Mukhopadhyay
Sensory & Consumer Researcher- Horticulture

HOW TO TASTE OLIVE OIL

Pour a little olive oil into a glass.



Warm the glass, and hence the oil, in your hands to release the volatile aromas.



Bring the glass to your nose and inhale two or three times, taking in the fragrance.



Take a small sip of the oil, allow to slide on to your tongue (but do not swallow). Now with your mouth slightly open, suck in some air.





SWIRL

This releases the oil's aromas. Keep oil covered in palm of hand until ready to sniff. Aroma equals fruitiness.



SNIFF

Uncover the oil and quickly inhale from the rim of the cup. Take note of the intensity and aroma.



SLURP

Take a sip! Slurp so you get air in your mouth to roll oil over your tongue and back of throat. Notice any bitterness.



SWALLOW

Breath out of your nose as you swallow to get a full spectrum of the pungency. Maybe it's a 1-2 cougher.



EVOO 100 Point Scoring Sheet

Name of judge:

Panel No:

Class:

Sample No.	Individual Points			Total	Other Judges		Agreed Points	Award	Comments
	Aroma	Flavour	Harmony Complex						
	/35	/45	/20		/100	/100	/100		
TB-5A					Please do not worry about other judges, just try to assess all 4 samples yourself and put a score				
TB-5A									
TB-5A									
TB-5A									

Defective: <50, No Medal: 50-64, Bronze: 65-75, Silver: 76-85, Gold 86-100 ©Australian Olive Association Ltd.



Picual

Synonyms: Picudo, Marteña, Lopereña Picuda Picvalles, Redondilla, Salgar, Salgares, Sevillano, Tetudilla Moradillo Albaideño Nevadillo, Nevada

Origin: Spain

Purpose: Oil production

- Picual olives are the most commonly grown olive today for olive oil production, with production centred in the Spanish province of Jaén. Picual trees are estimated to account for 25% of all olive oil production in the world.
- A very hardy variety that adapts to a variety of climatic and soil conditions including salinity, excess soil moisture and cold.
- Picual olives are medium in size, ovoid shape and slightly asymmetrical. It is early bearing with fruit ripening early.
- Picual oil has a high oleic acid content and high stability. It is resistant to rancidity and oxidation.
- Naturally very high in oil content (20-27% by weight) especially when harvested later in the season.
- Australian early picked Picual (from green/turning colour olives) oil has high levels of polyphenols (300-700ppm) with dark green vegetal and tomato stalk/leaf characters. Late picked Picual oil (from purple/black olives) is sweeter and less pungent with more tropical and characters.
- Used as a single variety and blended.