



# SENSORY EVALUATION OF COLD PRESSED OILS

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# Introduction

- On Romanian market, cold pressed oils gained lately high popularity especially in the mind of health-conscious consumers due to their nutritional value.

## Aim

- To evaluate the Romanian consumers' acceptability of the following cold pressed oils: hemp oil, rapeseed oil, flaxseed oil and walnut oil.



# Materials And Methods

- **SAMPLES:** 20ml of each oil sample (served in transparent plastic cups) were coded with 3 digit codes and randomly assigned to each participant; unsalted bread and water for palate cleaning between samples was provided.
- **CONSUMERS:** n=75, F 80%, M 20%, age 18-30.
- **TEST LOCATION:** The tests were organized at Laboratory for Sensory Analysis of Foods, USAMV Cluj-Napoca.
- **SENSORY TESTS:** hedonic test (9 point scale), descriptive test

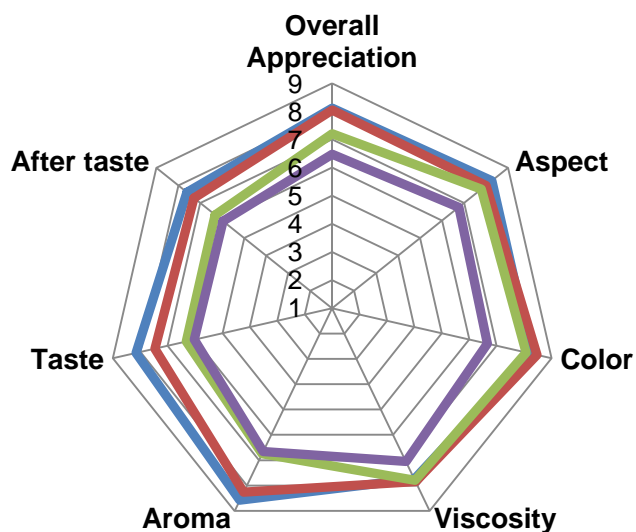
Hedonic test: Tick how much you like or dislike each of the following characteristics.

<b>Overall appreciation</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely unpleasant									Extremely pleasant
<b>Aspect</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely unpleasant									Extremely pleasant
<b>Color</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely unpleasant									Extremely pleasant
<b>Viscosity</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely unpleasant									Extremely pleasant
<b>Smell</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely unpleasant									Extremely pleasant
<b>Taste</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely unpleasant									Extremely pleasant
<b>Aroma</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely unpleasant									Extremely pleasant
<b>After taste</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely unpleasant									Extremely pleasant



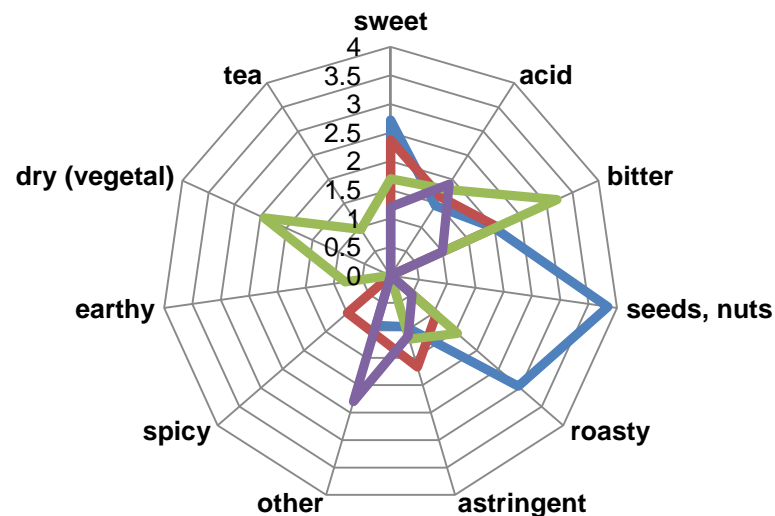
# Results

- Specific sensory characteristics were evaluated for each sample: walnut oil – nuts, rapeseed oil – spicy, hemp oil – dry, vegetal, tea and flaxseed oil – fish.



— Walnut oil — Rapeseed oil — Hemp oil — Flaxseed oil

Hedonic evaluation



— Walnut oil — Rapeseed oil — Hemp oil — Flaxseed oil

Descriptive evaluation



# Conclusions

- Cold pressed oils are used in cooking for various reasons (color, specific taste and aroma, nutritional values)
- Hedonic values decreased in the following order: Walnut oil > Rapeseed oil > Hemp oil > Flaxseed oil
- The aftertaste varied greatly between samples and the strongest aftertaste as intensity and duration was perceived for flaxseed oil.
- More research focused on developing a sensory lexicon for cold pressed oils can provide efficient tools for quality control of niche products and consumer education.

