



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ



Inovace studijních programů AF a ZF MENDELU směřující k vytvoření mezioborové integrace CZ.1.07/2.2.00/28.0302

**Tato prezentace je spolufinancovaná z Evropského sociálního fondu a
státního rozpočtu České republiky**

Assessment of sensual qualities of wine

Quality of Grapevine Chemical analysis

Objective information about wine composition and its components

Sensory analysis

Evaluation of wine sensual qualities

Refers to balance of wine components, its quality, intensity as well as deficiencies in wine taste and smell

Evaluation:

Objective evaluation: Chemical and microbiological analysis

Subjective analysis: Wine tasting, assessment of wine sensual qualities

Professional evaluation of grapevine sensual qualities uses:

Sight – wine appearance and colour

Smell – Intensity and quality of volatile aromas

Taste – a final opinion on a wine

Sensory quality refers to:

- Ripeness stage
- Wine freshness
- Varietal character and harmony
- After-taste and wine flavours

Visual, olfactory and gustatory assessment of wine

Irreplaceable part of wine quality evaluation

Stimuli affect sensory organs - receptors

Stimuli must have a specific minimum intensity to induce a relevant feeling

Smallest stimuli inducing a specific feeling – a sensitivity threshold

Visual wine assessment

Clarity, viscosity and colour of a wine

Semi-sparkling wines and sparkling wines – assessment of the beverage sparkling

Assessment of

- Colour intensity
- Shade of a wine
- Clarity of a wine
- Viscosity of a wine

Visual assessment of wine, together with olfactory and gustatory assessment, helps characterize a wine

A colour shade of white wines

- White wines from northern parts of the world are greenish yellow
- Wines from southern parts are yellow

A colour shade of red wines

Origins, processing and age are respected

- Light red wine is typical for insufficiently ripe grapes or insufficiently fermented grape mash
- Bright red wines – higher acidity
- Mahogany red wines – high-quality red wines from southern regions
- Brownish wines – advanced oxidation

Colour intensity of white wines:

Colourless

Pale

Straw yellow

Yellowish green

Golden yellow

Brownish

Gingerish

Colour intensity of rose and red wines:

- Pale rose
- Rose
- Brick-red
- Ruby-red
- Flame-red
- Dark red
- Purple red
- Brown-red
- Brown

Wine viscosity:

- Thin
- Normal viscosity
- Oil-like
- Slimy

Sparkling qualities of semi-sparkling and sparkling wines

Depends on concentration and intensity of carbon dioxide development. Sparkling wines may be characterized as:

- Foamy
- Fresh
- Sparkling
- Quiet
- Flat

Wine clarity

- One of the essential requirements on wine quality
 - Decreased clarity identifies wine imperfections and faults
 - Star bright clarity of a wine may be caused by harsh interferences with wine stability, and has a negative impact on other qualitative indicators

Wine clarity:

- Brilliant
- Bright
- Clear
- Dull
- Hazy
- Cloudy

Olfactory wine assessment

- Aromas are the odours of a wine
- Smell is a sensation caused by volatile substances
- Perception of odours relies on environment, odour concentration and temperature of the wine (optimum 16-18 °C)

Odour perception techniques:

Swirling the wine in the glass helps release and expand the odour, which is best detected by gently inhaling the scent rather than sniffing deeply

Odour identifies:

- A variety
- Origins
- Wine maturity

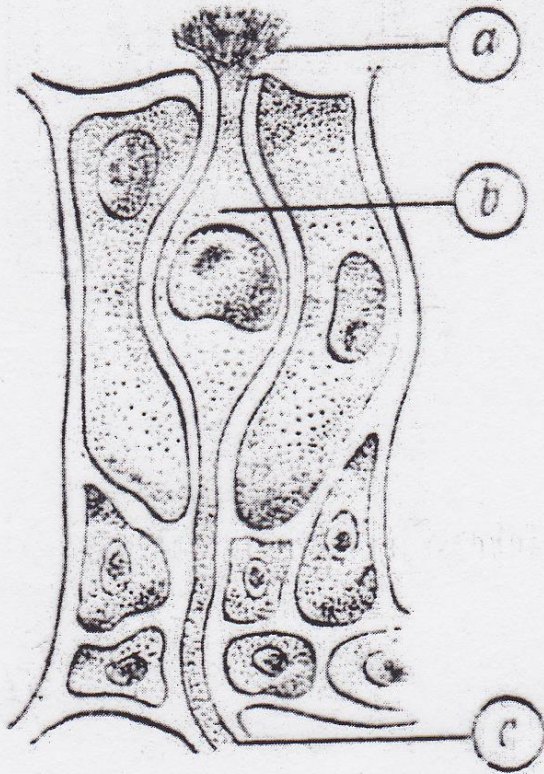
Bouquet classification:

- Primary b. - grapevines
- Secondary b. - fermentation
- Tertiary b. - aging

Intensity of odours:

- Extraordinary
- Pleasant
- Mild
- Ordinary
- Neutral
- Odourless
- Deficient
- Objectionable

Řez čichovým epitelem s čichovou buňkou



- a – čípek s jemnými výběžky
- b – čichová buňka
- c – nervové vlákno

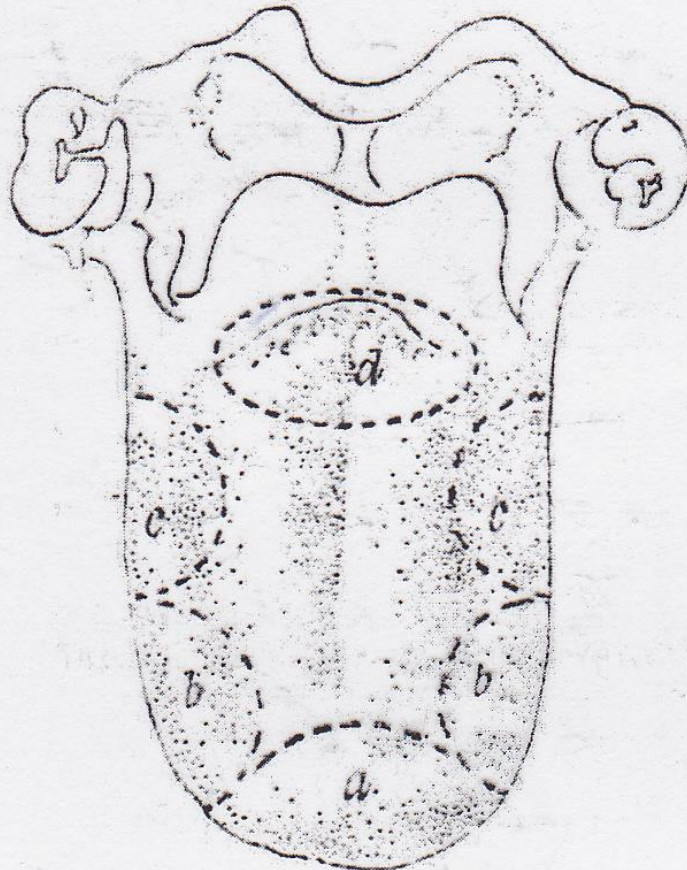
Tasting

- Taste is a decisive sense in wine evaluation
- Provides a final opinion on a wine
- Taste is not strictly a mere taste but all other sensations in a mouth (smell and touch)

Taste receptors – taste buds on a tongue

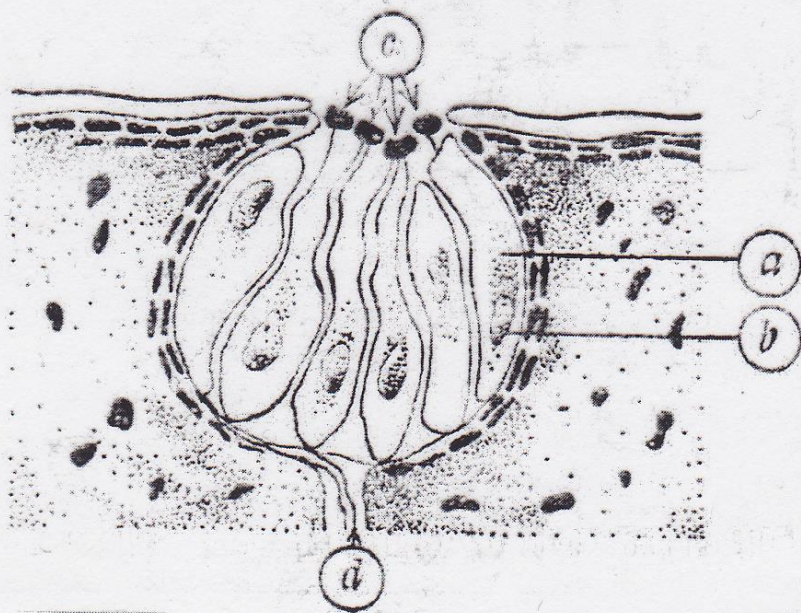
- 4 basic tastes

Lokalizace chut'ových receptorů na jazyku



- a – sladká chuť
- b – slaná chuť
- c – kyselá chuť
- d – hořká chuť

Schéma chuťového pohárku



- a – chuťová buňka
- b – jádro chuťové buňky
- c – čípky chuťových buněk
- d – nervové vlákno chuťových buněk

All organs in the oral cavity should experience the wine in order to properly evaluate the taste sensations

Heat helps release aromas; mucous membrane of a nasopharynx enhances a final taste analysis

The more taste-profound substances there are in the wine, the longer and more intensive taste sensations you experience

Wines with a great body and balance are characterized by harmonious distribution of the most important substances

Wine taste depends on:

- Age
- Health
- Content of:
 - Extract concentration
 - Sugar levels
 - Ethanol
 - Acidity
 - Tannins
 - Carbon dioxide

Taste assessment:

Wine age

- Young, unripe wine
- Ripe wine
- Aging
- Overripe
- Old

Taste assessment

Body:

- Watery wine
- Light wine
- Full-bodied wine
- Heavy wine

Taste assessment

Residual sugar

- Dry
- Medium-dry
- Sweet
- Very sweet

Taste assessment

Acidity:

- Flat wine
- Pleasant
- Balanced
- Tart
- Green (unripe)

Taste assessment

Overall taste:

- Pleasant
- Harmonious
- Nice
- Sound
- Flawed
- Bitterish
- Bitter
- Harsh

Principles in wine assessment

Evaluation of wine samples must comply with specific rules:

- Members of the evaluation team must be able to concentrate and work independently
- No spicy food before wine tasting (or any other strongly flavoured foods and beverages)
- No smoking during wine tasting
- White bread or a mild cheese are tolerated

- Good lighting, properly ventilated premises, not overheated (18-20 °C)
- Quiet during the tasting, no unnecessary noises
- Wine samples are prepared beforehand, adequately warm:
 - White wine samples: 10-12 °C
 - Red wine samples: 16-18 °C
 - Sparkling wine samples: 7-10 °C

0.5 dL, light, colourless glasses

Tulip-shaped glasses

Conical glasses for sparkling wines

No more than 15-20 samples; more samples require a
break between tasting

Order of wine samples is very important:

1. White wines

2. Red wines

3. Dessert and spicy wines

- Wine of lower quality followed by wines with higher quality
- Younger wines followed by older wines
- Less bitter wines followed by more bitter wines
- Odourless wines followed by aromatic wines

Wine evaluation

Colour

- White wines: yellowish green, light shade
- Golden tones for wines aging in bottles; sweet wines may be brownish
- Brownish shade in dry wines indicates oxidation

Colour

White wines:

- 0 – rich colour (brownish tone)
- 1 – Very light wines
- 2 – Greenish yellow wines, good for its type

Red wines:

- 0 – brownish red tone
- 1 – Light red tone
- 2 – Bright dark red wines

Clarity

0 – Haze and sediments

1 - Bright

2 - Brilliant

Aroma

0 – not fit for a healthy wine

1 – Poor aromas, indistinct

2 – More distinct but slight aromas

3 – Varietal aromas are:

Too mild

Too distinct

Incompatible with the wine harmony

4 – Typical harmonious aroma

Taste and overall impression

- 12 – Elegant, harmonious wines with all varietal features
- 8-11 – Harmonious, full-bodied wines, varietal features missing
- 5-7 – Harmonious, flat wines
- 1-4 – Poor wines, no objections
- 0 – Poor and objectionable