

ORGANOLEPTIC ANALYSIS OF WINES

Features of sparkling wine tasting



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PLAN:

- Features of sparkling wine technology
- Classification
- Physical and chemical properties and chemical composition
- Characteristics of the sample: play, color, aroma, taste, the typicality



Regulatory document

- ГОСТ Р 52558-2006 «Sparkling wines and sparkling pearl wines. General specifications»
- ГОСТ 33336-2015 «Sparkling wines. General specifications»

Terms and definitions:

- **Sparkling wine:** a Wine product with a volume fraction of alcohol from 8.5 % to 13.5 %, saturated with carbon dioxide in sealed pressure vessels as a result of full or incomplete alcoholic fermentation of grape must or secondary fermentation of table wine material and a pressure of carbon dioxide in the bottle of at least 300 kPa at a temperature of 20 °C.
- **Sparkling pearl wine:** Sparkling wine with a volume fraction of alcohol from 9.0 % to 12.5 %, saturated with carbon dioxide in sealed pressure vessels as a result of full or incomplete alcoholic fermentation of grape must or secondary fermentation of table wine material and carbon dioxide pressure in the bottle from 100 to 250 kPa at a temperature of 20 °C.
- **Sparkling wine of the traditional name:** Sparkling wine with a volume fraction of alcohol from 10.5 % to 13.0 %, saturated with carbon dioxide in sealed pressure vessels as a result of secondary fermentation of table wine materials produced from certain grape varieties and the pressure of carbon dioxide in the bottle is not less than 350 kPa at a temperature of 20 °C.

Note-the Traditional name consists of the word "champagne" in combination with an adjective derived from the name of the manufacturer (Belarusian champagne, Kazakh champagne, Russian champagne, etc.).

Grape varieties for champagne production



Pinot Noir



Pinot Meunier



Chardonnay

Allowed, but rarely used:

Pinot Gris, Pinot Blanc, Petit Meunier, Arbant

Champagne is a sparkling wine produced in the French province of champagne using a special technology.

Wines produced in another area - "sparkling wine"

TECHNOLOGIES:

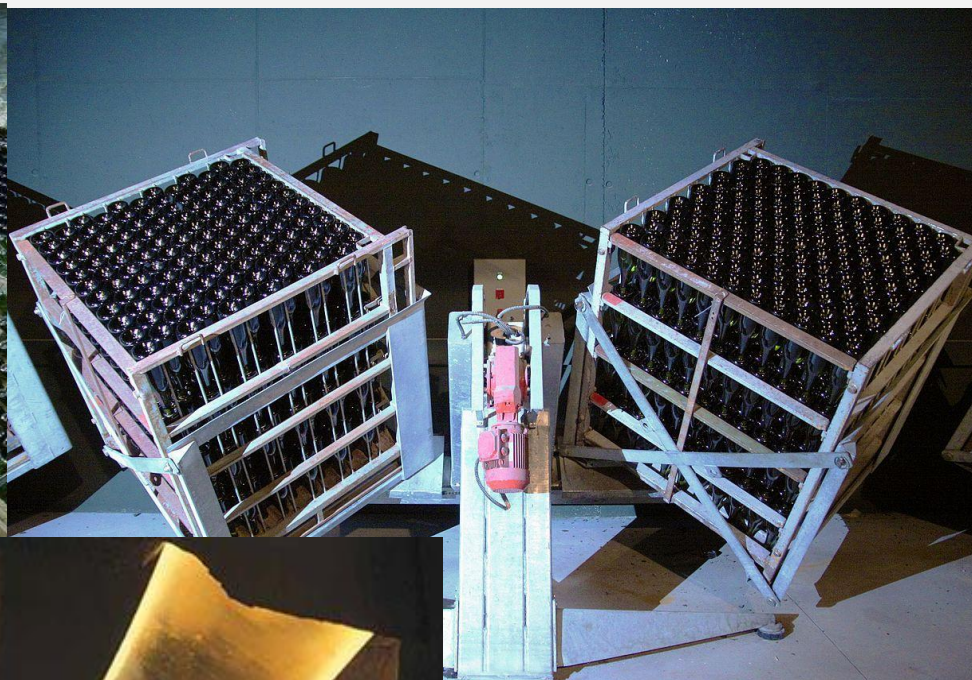
1. Bottle method (champanoise)

After the primary fermentation, the wine material is bottled together with a circulation liqueur for champagne (secondary fermentation). In this case, the added sugar is processed into alcohol and carbon dioxide, which saturates the wine

France: creman-sparkling wine with a light and delicate taste, obtained by the method of champanoise

Spain: Cava

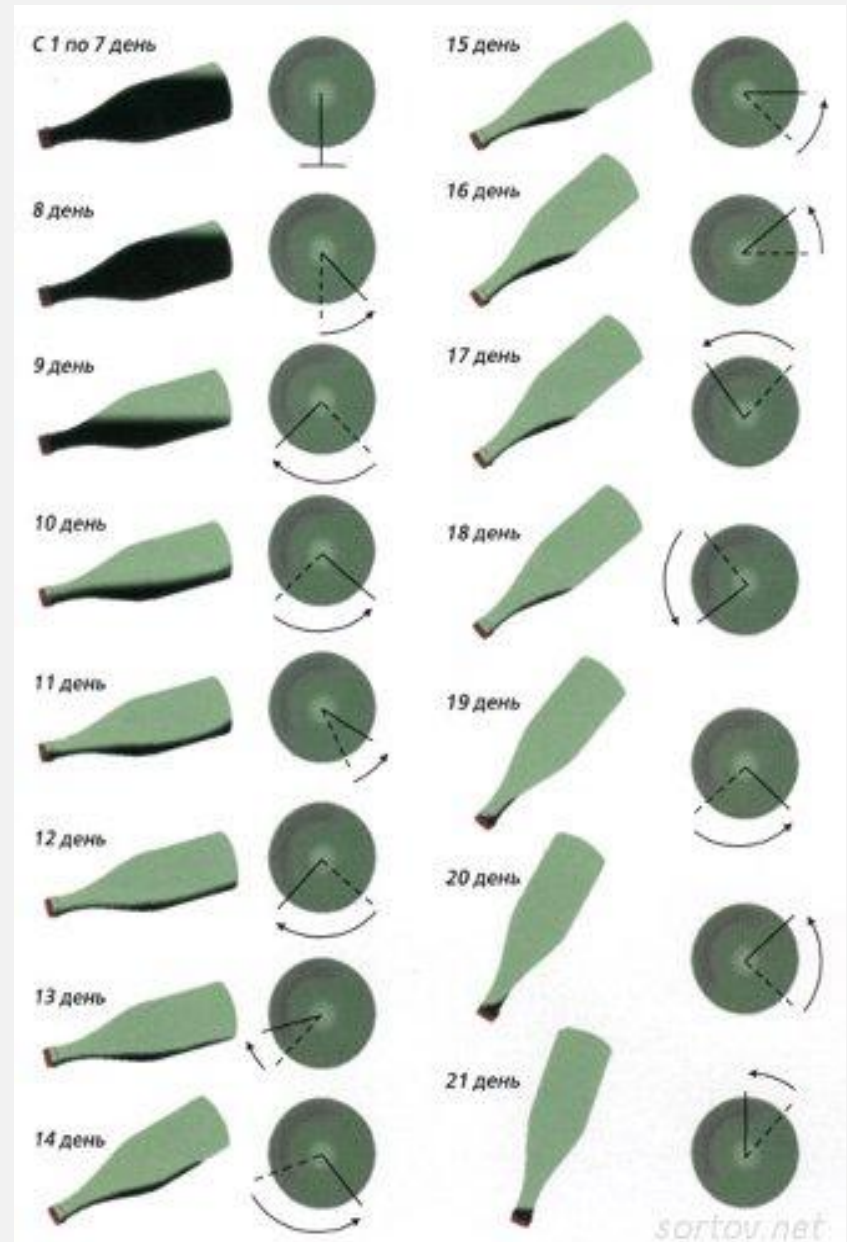
Remuage- method for reducing the sediment on the cork during champagne in bottles. Bottles are placed in classic or automatic music stands



The stage of remuage



Cork stopper for champagne and muslé



Degorging is an operation used in the production of bottled champagne to release yeast sediment. To reduce the loss of carbon dioxide and wine, the sediment in the neck of the bottle is frozen before degorging. The master degorger quickly uncorks the bottle with the neck facing down, while the sediment with the cork is ejected by the pressure of carbon dioxide. Then the bottle is brought to a standing position, topped up with the same wine or expedition liqueur (a mixture of the original wine and sugar) and capped.

Gerit - a special device for degorging



2. Reservoir method (Sharma method)

Secondary fermentation is carried out in large containers, which are added to the circulation liquor for further fermentation and saturation with carbon dioxide.

3. Transfer

Combines the two listed above.

Secondary fermentation with distilled liqueur is carried out in bottles, as in the case of champagne.

Yeast sediment is not removed by freezing the neck. After secondary fermentation in bottles, the wine is drained in containers, filtered under pressure, brought to the desired sugar conditions and finally bottled, followed by corking.

Terms and definitions:

Akratophorus (from the Greek akratophoros - vessel for pure wine) - a device for champagnizing wine materials by tank method



Classification of sparkling wines:

- Sparkling wines are divided into:
 - ✓ sparkling wine;
 - ✓ sparkling pearl wine;
 - ✓ sparkling wine of the traditional name.

Sparkling wines depending on the aging period after the end of secondary fermentation can be aged and collectible.

- Sparkling wines, depending on the mass concentration of sugars, are divided into:
 - ✓ Extra Brut
 - ✓ Brut;
 - ✓ Dry;
 - ✓ Semidry;
 - ✓ Semi-sweet;
 - ✓ Sweet
- Sparkling wines (except sparkling wines of the traditional name) are divided by color:
 - white;
 - pink;
 - red

Sparkling wines of the traditional name are divided by color into white and pink

Features of the composition of sparkling wines:

Specific features – foamy and sparkling properties of wine, which provides an excess of carbon dioxide (CO_2)

Forms of carbon dioxide:

- gaseous
- dissolved
- related



In carbonated (SYN. saturated) CO_2 wines of external (exogenous) origin, which gives a small amount of chemically bound form, so their foamy properties are weak, and the sparkling qualities are fast-passing

In sparkling wines, CO_2 of internal (endogenous) origin is formed during the secondary fermentation of wine under excessive pressure

This is **NOT** right! Why?



Features of serving sparkling wines:

Sparkling wines are served for tasting chilled to 8-10°C.

At room temperature, excessive pressure occurs in a closed bottle, which leads to the exhaust of the champagne cork, rapid foaming of the wine, reducing the game and the duration of the " life " of the foam

In warm sparkling wine after opening the bottle its many valuable volatile aromatic compounds are quickly lost

When tasting, the bottles are opened noiselessly, smoothly removing the cork and holding it with your hand

"Shot" not only distracts the attention of analysts, but also leads to premature destruction of the associated forms of CO₂, rapid release of gas, rapid attenuation of the game, deshampianization

Open bottles of wine saturated with CO₂, just before testing it

Specific terms that characterize the characteristics of sparkling wines:

Mousse-foaming when pouring wine into a glass

Perlage (game) - active selection of bubbles in a glass

