



WINE PRODUCTION

Red wines production

1. *The grapes*

The grapes, picked by hand, are delivered to the facility in plastic crates and are subject to lab tests in order to determine the content of sugar and titratable acids, as well as the proportion of damaged or crushed grapes. Then the grapes are delivered to the following processing stage by a conveyor belt, where the quality of the grapes is checked one more time. As a result the dried and spoiled grapes are identified and sieved out.

2. *Crushing, stemming, sulfitization*

In the wine making practice grape crushing takes place at the same time as stemming. Vinaria Purcari is equipped with the latest equipment manufactured by leading European producers. The roll crushers used at the facility ensure a high quality of crushing and a moderate rubbing of the grape peel. The pulp which results from the process is treated by fermentation agents, sulfitized at 50-75 mg SO₂/kg of processed grapes, and then loaded into tanks to ferment. When the pulp is treated by fermenting agents, this improves the extraction of phenolic, coloring and aromatic substances from the grape peel and facilitates pressing.

3. *Must and pulp fermentation*

In order to have the right amount of phenolic substances extracted from the grape peel, a process known as must and pulp fermentation is used. This process takes place with the help of selected yeasts (different kinds for different varieties of grapes). The fermentation of the must with a floating pulp cap in oak tanks, with controlled stirring, ensures a yield of red wines with pronounced variety characteristics. The particularity of this method consists in the natural contact between the must and the pulp, which enriches the wine with coloring, phenolic, extractive and aromatic substances contained in the peel.

4. *Separation of must from pulp*

After the must acquires the desired color, tartness and extractive substances, it is placed on a drainer and then pressed. To produce high-quality red wines the first fraction (no more than 60 dal of one ton of grapes) and self-drained must are used.

5. *Final fermentation, separation from sediment*

The self-drained must and the first fraction are mixed in a specific proportion and left to finish fermentation until residual sugar has fermented completely. Then the tanks are filled up with primary wine in order to empty the tanks of all air. Two weeks later, when the large particles form a sediment, the clear part of the primary wine is separated—this process is called separation from sediment.

6. *Apple-lactic acid fermentation*

When the alcohol fermentation finishes, the apple-lactic acid fermentation takes place, which is one of the most important

operations that ensures the high quality of the Purcari wines. This process takes place under a strict technochemical and biological supervision and stops when apple acid has fully transformed into lactic acid. This transformation takes place in wine under the influence of lactoacid bacteria cultures, which render the wine soft and fruity.

7. Clarification

Clarification is done by using a variety of substances which make the suspended particles sediment to the bottom of the vessel. The usual substances applied are gelatin, tannin, fish glue, egg white, casein, bentonite. When one of these substances is added to the wine in an appropriate amount, the wine develops flakes, which then gradually—over several days—fall to the bottom of the tank drawing down the dregs. In order to determine exactly what substance and in what amount should be used for wine clarification, several test clarifications are made first in the lab.

8. Maturation in oak barrels

By tradition, the maturation of the best red wines takes place in French-oak 225-liter barrels. In such smaller barrels the young wine develops faster and better than in large tanks. The temperature in the cellar is kept at 12-16 °C and humidity at 85%. The main advantage of oak barrels is that they transfer to the wine the oak's unique vanilla aroma, which combines perfectly well with the aroma of the grapes. This method of maturation is necessary in order to allow quality red wines to best develop their characteristic organoleptic qualities.

9. Cold treatment

After maturation, the wines are subject to cold—they are kept in refrigerators for 4-5 days at temperatures from -3 to -5 °C. Then the wines are filtered, at the same temperature, and left to rest.

10. Sterile bottling

The most effective physical method of biological stabilization of wines is the cold sterile bottling. This bottling method is possible only when no microflora whatsoever is present in the wine, bottles, corks, equipment and air of the bottling facility. Another important aspect is the microbiological supervision of wines and potential infection sources—equipment, bottles, corks, etc. Cold sterile bottling preserves the full organoleptic qualities of the wine, sought by winemakers.

11. Bottle maturation

After bottling, the wine is subject to additional maturation in bottles—a period when the wine rests and acquires its unique, delicate bouquet, soft and harmonious taste, which represent the finale of the wine's transformation into a work of art. It is at this stage that the wine acquires a spirit and develops the qualities given to it by the winemaker.

12. Pre-sale packaging

After bottle maturation, a corporate label, printed on special paper, is applied to the bottle, the neck is wrapped in a high-quality poly laminate decorative cap, and finally the bottle is wrapped in fine paper and packaged into a special cardboard box.

White wines production. Main stages

- 1. Reception of grapes***
- 2. Crushing, stemming***
- 3. Separation of the self-drained must from pulp***
- 4. Clarification***
- 5. Alcohol fermentation***
- 6. Fining***
- 7. Maturation in oak barrel***
- 8. Cold treatment***
- 9. Sterile bottling***
- 10. Bottle maturation***
- 11. Packaging for sale***