



Aspects regarding the quality of red wines obtained in the Merei wine-growing center, Buzau county, Romania

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SCOPE

In order to establish the quality of the red wines produced in the Merei viticultural center, during the years 2021-2023, with the entry into production of the plantations, the grapes were vinified according to the varieties and the wines obtained were analyzed. The results were the types of wines that can be obtained and their physical-chemical compositional characteristics.

METHODOLOGY

The grapes came from plantations for red wines in the Merei wine-growing center: Fetească neagră, Cabernet Sauvignon, Merlot and Pinot noir. Vinification of the grapes was done in the unit in Pietroasa, Buzau county.

Wine production technology. The grapes are harvested between October 5-20, depending on the climatic conditions of the year, when the concentration of sugars has reached 210-245 g/l of must. Crushing and de-stemming of the grapes with the egrafulopompa, the must being sent directly to the rotovinifiers, capacity of 200 hl. Here the mustache was inoculated with pectolytic enzymes, sulphited with a dose of 35 mg SO₂ /l and after a few hours inoculated with selected yeasts in a dose of 17,5 g/hl.

In rotovinifiers, for the extraction of anthocyanins, temperature 24-28 oC, 5-6 rotations/minute for 8 minutes/hour. The duration of maceration - fermentation until the alcoholic concentration of 11-11.5% by volume is achieved, which ensures a maximum extraction of anthocyanins and total polyphenols. Separation of the must in fermentation from the lees, by gravity draining, and the lees pressed with the help of pneumatic presses.

RESULTS AND DISCUSSION

The Pinot noir, Cabernet Sauvignon and Merlot varieties achieve a very close qualitative potential of the grapes at harvest. The Feteasca neagra variety stands out in terms of quality.

The physico-chemical composition characteristics of quality red wines from
Merei wine center (years 2021 - 2023)

Type of wine	Year	Alcohol % vol.	Total acidity g/l ac.tartaric	Carbohy drates g/l	Reducing dry extract g /l	Color	
						I.C	tempt
Feteasca neagra	2021	13,2	6,1	3,4	28,7	3,35	0,50
	2022	11,8	6,5	2,1	27,5	2,90	0,70
	2023	13,8	5,5	0,6	31,8	3,53	0,55
Cabernet Sauvignon	2021	13,9	5,80	2,2	30,1	4,50	0,75
	2022	12,4	6,53	1,6	27,5	3,50	0,60
	2023	13,8	5,90	1,5	32,8	4,80	0,70
Merlot	2021	13,5	6,22	1,8	28,9	3,98	0,60
	2022	12,1	6,10	2,7	27,2	2,98	0,75
	2023	13,5	6,10	2,1	29,4	4,20	0,65
Pinot noir	2021	13,5	5,95	1,8	29,1	2,68	0,75
	2022	11,9	6,30	2,2	26,5	1,80	0,55
	2023	13,2	5,30	0,9	29,2	2,98	0,80

The qualitative potential of the grapes at harvest ensures, year after year, the production of quality red wines in the Merei wine-growing center. Dry red wines can be obtained, with a high alcoholic strength (> 11% vol.), balanced total acidity (6.0-6.2 g/l tartaric acid), rich in extract (27.8-30.7 g/ l) and ruby red color, color intensity 2.7-3.9.

CONCLUSIONS

In the Merei wine-growing center, Buzau county, you can get quality dry red wines from the Fetească neagra, Pinot noir, Merlot, Cabernet Sauvignon varieties.

The particularities of the variety are very important, especially in Fetească neagra and Cabernet Sauvignon wines.

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