

## ASSESSMENT THE POTENTIAL OF BIOLOGICALLY ACTIVE SUBSTANCES OF YOUNG RED WINE PRODUCED FROM RARĂ NEAGRĂ (LOCAL GRAPE VARIETY)

Natalia VLADEI-FURTUNĂ, Ecaterina COVACI

*Department of Oenology and Chemistry, Technical University of Moldova, Chisinau, Moldova*

Recent trends promoting a healthy and active lifestyle have a negative impact on the consumption of sparkling and aged red wines. Therefore, consumers preferences focus on balanced and lighter wines, which also have a higher biological/physiological value, such as: local variety, country wines, young wines, white and rose table wines.

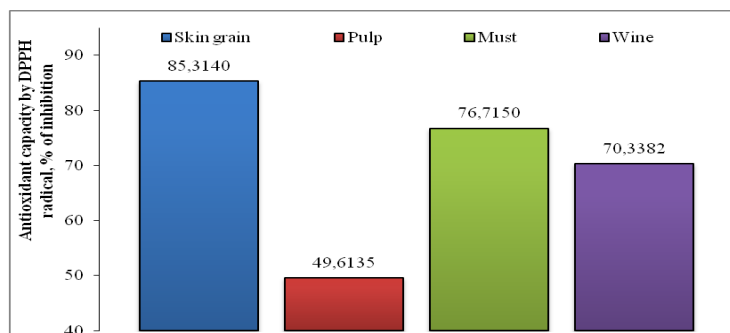
These varieties are the ones that have appeared on Moldovan land since ancient times, have adapted to the pedo-climatic conditions and have been preserved until the present, mentioning: *Feteasca Albă, Feteasca Regală, Zghihara, Plăvaie, Galbena, Crâmpoșie, Feteasca Neagră, Rara Neagră, Negru de Ialoveni, Francuș* and other.

The purpose of the present work is to establish the potential of *Rară Neagră* local variety producing red wine with characteristics of pedo-climatic *Purcari* areas conditions. Physico-chemical analyses of the wine have been evaluated by the international standards of International Organization of Vine and Wine (IOVV). The data concerning the main wine characteristics are presented in Table 1 and the diagram of grapes components antioxidant capacity evaluated by DPPH radical is included in figure 1. According to achieved results the skin grain present 85,3 % inhibition rate and 50% in pulp respectively.

**Table 1.** The 168entra-chemical indices of red wine obtained Rara Neagră locale grape varieties

Indices	Determined parameters						
	Mass ethanol concentration, % v/v	pH value	Mass concentration of titrable acids, g tartaric acid /L	Mass concentration of sugar, g/L	Mass concentration of volatile acids, g acetic acid /L	Total poly-PH index mg/L	Conductivity at 20°C, μS/cm
Rara Neagră	13,27 ± 0,08	3,42 ± 0,01	5,88 ± 0,04	2,23 ± 0,06	0,39± 0,08	682,45 ± 0,1	1910 ± 6
Organoleptic analysis	Clear red wine, without particles in suspension. Red-ruby colour with bright. Aroma of plums, with no foreign flavors. The taste is complex, balanced with nuance of dry fruits.						

According to these data, the physico-chemical characteristics of red wine *Rară Neagră* variety are characteristic for a highest quality wine. Also, the major antioxidant capacity of *Rară Neagră* skin grain allows elaborating and implementing a modern technology to produce the high biological vineyards local varieties.



**Fig.1.** Antioxidant capacity of grapes components by DPPH radical, % of inhibition.

**Acknowledgements:** The research was funded by State Project 20.80009.5107.09 „Improving of food quality and safety through biotechnology and food engineering”, conducted at Technical University of Moldova, Department of Oenology and Chemistry, Microwinery Center.