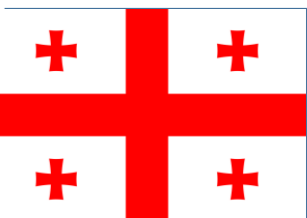


INVESTIGATION OF WINE DISTILLATES (CHACHA VODKA SPIRITS) RECEIVED FROM TSOLIKOURI AND RKATSITELI GRAPE VARIETIES



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Introduction

Law of Georgia “on Vines and Wine” prohibited application of the term “Georgian cognac”; instead of it is applied name “Georgian brandy”. In the main market of Georgian drinks – in Russia Georgian brandy was denied, because brandy belongs to low quality drinks category. Connected to this, we added changes to the Law “on Vines and Wine” in explanation of the term Georgian chacha vodka, according to what Georgian chacha vodka may be prepared both from the residues of grape processing – must, and from Kakhetian type wine, which is made from fermentation of the juice on the must. With this, we made Georgian chacha vodka to stand close to cognac by its quality. As is known, cognac is made from European type wine, that is via distillation of the grape juice fermented till dryness and further aging of the received distillate in oak barrels.

Table.

Chemical composition of the wine distillates received from Tsolikouri and Rkatsiteli Grape Wines*

Conditional characteristics	Grape variety	
	Tsolikouri	Rkatsiteli
Ethyl alcohol, % vol.	61.7	65.1
Volatile acids, g/l	0.057	0.069
Total esters, mg/l	163.20	131.61
Aldehydes, mg/l	54.12	29.48
Acetals, mg/l	29.50	24.22
Ethylacetate, mg/l	164.10	81.60
Methyl alcohol, mg/l	250.60	249.6
pH	4.37	4.90
Degustation evaluation, points	8.6	7.72

* Amount of the must added to the juice before fermentation is 5%

Methodology

The aim of the study was conduction of the alcoholic fermentation of the industrial Georgian grape varieties – Tsolikouri and Rkatsiteli musts with presence of various percentage amount of destemmed musts, preparation of distillates from the received wine materials and their chemical and organoleptic investigation. In various test samples of Tsolikouri and Rkatsiteli to the juice before fermentation was added destemmed must in amount of 1, 2, 3, 5, 10 and 30%. Alcoholic fermentation of the mentioned samples was conducted in qvevri. According to these variations there were prepared distillates from the fermented wine materials; was conducted chemical evaluation of the distillates and their degustation evaluation.

Results

The analysis of the results obtained showed that the best result during both Tsolikouri and Rkatsiteli grape varieties juices fermentation, was obtained with addition of the 5% destemmed must in process of alcoholic fermentation. As well, wine distillates received from the mentioned grape varieties meaningfully differ from each other in chemical and organoleptic characteristics.

Summary

In wine distillate received from Tsolikouri grape, compared to Rkatsiteli grape wine distillate, the following characteristics are higher in amount as:

Total amount of esters – by 24%;

Acetals – by 21.8%;

Aldehydes – by 83.6%;

Ethylacetate - 2 - times;

Degustation evaluation - by 0.88 points.

Wine distillate received from Tsolikouri grape variety is much higher in quality in comparison to Rkatsiteli distillate. These distillates are used for the new type chacha vodka production.

References

1. Law of Georgia “on Vines and Wine”, 1969 (In Georgian)
2. Collection of International Methods of Analysis and Evaluation of Wines and Musts. Moscow. Food Industry. 1993 (In Russian)