

CERCETĂRI PRIVIND ÎNSUȘIRILE TEHNOLOGICE ALE UNOR SOIURI DE STRUGURI PENTRU VIN ÎN CONDIȚIILE CENTRULUI VITICOL RECAȘ

RESEARCHES REGARDING TECHNOLOGICAL FEATURES OF SOME WINE GRAPES VARIETIES IN RECAS VITICULTURAL CENTER CONDITIONS

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Cuvinte cheie: soiuri, struguri, vin, zahăr, aciditate, producție.

SUMMARY

Wine quality depends categorically upon the variety cultivated, grape quality at harvesting and upon the technology of vinification.

With regards to these aspects, our researches have supervised the evolution of grape maturation in some wine grape varieties, cultivated in the private vineyard from the wine-growing centre Recaş, in order to establish the optimal moment for harvesting. We have determined the sugar and acid content and the mass for 100 grapes. We have also performed determinations related to the quantitative and qualitative yield, in order to find out the most proper varieties for the creation of a new sort specific to this vineyard.

INTRODUCTION

The success on world's wine market is strictly connected to an exquisite quality and wine tipicity.

For quality wines are necessary the following conditions: very favorable pedoclimatic resources, varieties with high qualitative potential, qualitative grapes harvested at the optimal moment, a performant endowed vinification complex and a wise oenologist.

For harvesting the grapes at the optimal moment, it is very necessary daily monitorization of their maturity evolution.

MATERIAL AND METHOD

Researches had been made in wine-growing private plantations from Recas viticultural center. Analyses were done in the viticulture discipline laboratory of USAMVB Timisoara.

Were taken into study nine grapes varieties, from which 5 varieties for white wines: Riesling Italian, Feteasca alba, Feteasca regala, Pinot gris Sauvignon blanc and 4 varieties for red wines: Cabernet Sauvignon, Burgund, pinot noir and Merlot. Witness was varieties average.

For analyses were taken grapes samples from 5 to 5 days, on varieties. From every variety were taken 1.5-2 kg of grapes from 5 vines, from the most representative points of the plot.

In order the sample to be representative for the grapes ripening degree, were harvested grapes from the bottom, middle and the top of the vines.

Weight was determined through the mass of 100 grapes, sugar content through refractometric method and the acidity through titration.

Table 1.

Ripening evolution of some wine grapes varieties in the year 2006 in Recas vineyard

Variety	Analisisys	Analisisys made data										
		5.09.	10.09.	15.09.	20.09.	25.09.	30.09.	5.10.	10.10.	15.10.	20.10.	25.10.
Riesling Italian	Weight (g)	74	80	82	85	101	105	120	136	140	145	145
	Sugar(g/l)	77	94	97	116	127	136	144	155	164	178	186
	Acidity (g/l H ₂ SO ₄)	14,7	14,0	13,8	12,7	9,8	9,6	8,3	8,1	7,3	6,1	5,4
Feteasca alba	Weight (g)	72	83	87	90	95	98	108	106	-	-	-
	Sugar(g/l)	120	127	147	168	186	197	206	219	-	-	-
	Acidity (g/l H ₂ SO ₄)	11,9	11,3	9,1	8,3	7,1	6,7	6,1	5,5	-	-	-
Feteasca regala	Weight (g)	75	89	100	101	104	113	125	130	158	178	-
	Sugar(g/l)	94	108	116	127	138	155	158	166	179	188	-
	Acidity (g/l H ₂ SO ₄)	14,2	13,2	10,7	10,8	10,2	8,5	7,8	7,3	6,4	5,7	-
Pinot gris	Weight (g)	76	75	97	108	112	116	118	121	123	120	-
	Sugar(g/l)	135	142	159	182	194	201	207	212	215	215	-
	Acidity (g/l H ₂ SO ₄)	11,2	10,8	10,6	9,4	8,3	7,7	7,1	6,4	5,3	4,7	-
Sauvignon Blanc	Weight (g)	72	81	90	95	104	106	109	114	118	120	122
	Sugar(g/l)	111	116	123	153	160	181	193	197	200	202	204
	Acidity (g/l H ₂ SO ₄)	13,7	13,4	12,3	10,7	8,3	6,8	6,3	6,2	5,7	5,3	5,3
Cabernet Sauvignon	Weight (g)	60	64	76	81	84	90	98	110	115	121	126
	Sugar(g/l)	110	112	126	162	168	174	176	180	187	190	195
	Acidity (g/l H ₂ SO ₄)	12,6	12,2	13,7	10,7	10,1	8,8	7,7	7,0	6,1	5,3	5,1
Burgund	Weight (g)	114	117	120	129	133	143	161	168	175	188	202
	Sugar(g/l)	122	134	145	162	168	170	175	182	190	192	194
	Acidity (g/l H ₂ SO ₄)	11,1	10,7	10,0	9,1	8,2	7,9	7,7	7,5	6,9	6,3	5,2
Pinot noir	Weight (g)	89	94	100	113	117	120	123	125	125	123	120
	Sugar(g/l)	130	142	153	168	172	176	188	195	201	209	219
	Acidity (g/l H ₂ SO ₄)	12,4	12,1	11,0	9,8	9,0	8,3	7,7	7,1	6,2	4,9	4,1
Merlot	Weight (g)	84	88	94	95	100	106	117	128	135	138	-
	Sugar(g/l)	116	119	125	149	168	174	180	186	190	193	-
	Acidity (g/l H ₂ SO ₄)	14,2	13,2	11,7	10,8	10,1	8,5	7,9	7,3	6,2	5,7	-

RESULTS AND DISCUSSIONS

Researches followed the ripening evolution of some wine grapes varieties in the year 2006, from the beginning of the ripe period until harvesting (Table 1).

As the sugar content grows, took place to all varieties the increase of grapes weight and the decrease of acidity content.

Grapes growth in weight started intensely from September, and as long as we getting close to the harvesting maturity, grapes weight became constant.

Tabelul 2

Winegrapes varieties yield in the year 2006 in Recas vineyard

Variety	yield		% to the mean	Difference to the mean (kg/ha)	Significance
	Kg/vine	Kg/ha			
Riesling italian	1,94	8120	113,29	+952,56	**
Fetească albă	1,51	6305	87,96	-862,44	00
Fetească regală	2,10	8750	122,07	+1582,56	***
Pinot gris	1,21	5080	70,87	-2087,44	000
Sauvignon Blanc	1,69	7050	98,36	-117,44	-
Cabernet Sauvignon	1,75	7310	101,98	+142,56	-
Burgund	2,28	9510	132,68	+2342	***
Pinot noir	1,26	5280	73,66	-1887,44	000
Merlot	1,70	7102	99,08	-65,44	-
Mean	1,71	7167,44	100	-	-

DL 5 % = 425,20 DL 1 % = 734,2 DL 0,1% = 1121,1

Feteasca alba variety registered the lowest mass of 100 grapes (106g) at harvesting and Burgund the highest weight (202g). Grapes sugar content is accumulated progressively from the beginning of the analyses data until the harvest period is finished.

We observed that the Pinot gris, Pinot noir, Burgund and Feteasca alba varieties have a highly enough sugar content even from the beginning of the analyses, over 120g/l.

The lowest sugar content in must at harvesting was registered at Riesling Italian (186g/l) and Feteasca regala (178g/l) varieties.

Pinot noir and feteasca alba varieties accumulated the highest sugar content (219g/l).

Pinot noir (4,1g/l H₂SO₄) and Pinot gris (4,7g/l H₂SO₄) varieties registered at harvesting the lowest acidity and Feteasca regala and Merlot (5,7 g/l H₂SO₄) varieties the highest one.

From yield and quality point of view, varieties phased themselves in accordance to their genetic potential, being remarked for an exquisite quality Feteasca alba, Pinot gris , Cabernet sauvignon and pint noir varieties (Table 2).

CONCLUSIONS

Recas viticultural center pedoclimatic conditions proved to be favorable for all researched varieties, offering prerequisites for a qualitative yield and exquisite wines.

The most productive varieties proved to be Feteasca regala, Burgund and Riesling Italian meantime Pinot gris, Feteasca alba and Pinot noir gave small yields, compensated by the grapes exquisite quality.

A special place is occupied by Feteasca regala variety, a very praised variety by wine consumers all over the country which in Recas viticultural center conditions give high yields and a good towards very good quality.

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