

RESEARCHES REGARDING VITICULTURAL EXPLOITATIONS SIZE, PRODUCTION DIRECTIONS AND VARIETIES ASSORTMENT CULTIVATED IN ROMANIA'S WEST REGION

DOBREI A., SALA F., SAVESCU I., KOCIS E., MUSTEA M.

ABSTRACT

Researches had been made in 12 viticultural exploitations from Recas, Minis-Maderat, Buzias-Silagiu and Tirol-Jamu Mare, viticultural centres situated in the west region of Romania. There were analyzed from viticultural view point, pedoclimatic conditions of the mentioned areas.

We also made observations concerning exploitations size, which vary between 5-700 ha, varieties assortment, production goals and present and future plantation graphic.

It comes out, priority in 2005, an intensification, of the establishment rith of new viticultural plantations especially in Recas, Minis and Buzias viticultural areas.

Viticulture rising which happened in the last few years in the western part of Romania is determined by the massive foreign and autochthonous investments, which leads to viticultural activity efficientization.

Key words: viticultural exploitations, surfaces, climatic conditions, west part of Romania.

Introduction

Romania is one of the main European viticultural countries, with a millenary tradition concerning vine cultivation. Viticulture development in Romania cannot be placed out of the social, economical and political actual context.

As a result of the EU negotiations, Romania's viticulture potential is formed by the following categories.

Table 1

Romania's viticultural surface

Viticultural surface registered in the register	189.338,0 ha
Viticultural surface occupied with plots <100 mp	8.648,9 ha
Replanting wrights (HPD replacement established at negociations)	30.000,0 ha
Supplementary replanting wrights (agreed at negociations)	2.830,5 ha
National reserve (clearing surface over the last five years)	9.182,6 ha
TOTAL	240.000,0 ha

An important part of this viticultural surface is unfortunately not cultivated or occupied with old vines biologically speaking. Romania has 8 viticultural regions, which includes numerous vineyards and viticultural centres.

An important Romanian viticultural region is also the west area, which represents an area with tradition and long experience in vine cultivation. The west side assures favorable and very favorable conditions for the table grapes varieties cultivation and especially for wines varieties.

The most important viticultural centres from this area are: Recas Viticultural Centre, Silagiu Viticultural Centre, Teremia Viticultural Centre, Tirol Viticultural Centre, Minis Viticultural Centre.

Material and method

Researches were made in the following viticultural areas: Recas, Silagiu – Buzias, Teremia, Tirol, Minis.

The aim of our research was the study of pedoclimatic potential, varieties assortments, production goals and the most important viticultural exploitations.

Recas Viticultural Centre:

It is located 20 – 30 km North – East far from Timisoara. The most important viticultural regions are: Izvin, Herneacova and Giarmata. This viticultural centre praise itself through superior qualitative wines, also reds and whites obtained from the red varieties: Cabernet Sauvignon, Pinot noir, Merlot and Burgund and from white varieties: Riesling Italian, Feteasca regala and Muscat Ottonel. Table grapes varieties cultivated includes: Chasselas d'ore, Muscat de hamburg and Muscat de Adda.

Silagiu – Buzias Viticultural Centre.

It is placed in Timis County, near Buzias city and Silagiu Hill and Bacova represent it. It's production goal it's to obtain white and flavoured wines of superior quality. Are prevailing: Riesling Italian, Cabernet Sauvignon and Muscat Ottonel varieties.

Are produced also red wines of superior quality obtained from the following varieties: Cabernet Sauvignon, Pinot noir, Merlot and Burgund. Varieties assortment of table grapes it's limited to these which have the ripening epochs III and IV.

Teremia Viticultural Centre:

It is placed in Timis county, north from Timisoara close to the Serbian border. It's production direction is oriented through white wines for current consumption obtained from the local varieties: Creață, Majarcă Albă, Feteasca regala and Muscat Ottonel. Table grapes assortment is reduced to: Chasselas D'ore, Chasselas rosse and Muscat de Hamburg.

Minis - Maderat Vineyard.

It is situated 20 km East far from Arad city and includes Minis and Maderat viticultural centres. Between these two viticultural centres are big ecoclimatic differences, so that exists also assortment differences. At Minis are prevailing the varieties for red wines of superior quality (Cabernet Sauvignon, Pinot noir, Cadarca, Merlot, Burgund) followed by the varieties of white wines of superior quality (Riesling Italian, Feteasca regala, Muscat Ottonel).

At Maderat viticultural center in the foreground are the white wines varieties for current consumption represented by Mustoasa de Maderat which it's considered to be a local variety and by Feteasca regala variety.

Are obtained also red wines for current consumption using Burgund Mare, Oporto and Sangiovese varieties, as well as white wines of superior quality on relative small surfaces from the predicted varieties also for the Minis viticultural centre (Riesling Italian, Feteasca regala, Muscat Ottonel).

Table grapes varieties which are cultivated belongs to III – IV ripening epochs (Chasselas D'ore, Chasselas rosse, Muscat de Hamburg).

Tirol Viticultural Centre:

It's placed at 165 m of altitude. It is situated 30-40 km West far from Resita municipality and includes areas which belongs to Caras - Severin county (Doclin, Berzovia) and area which belongs to Timis county (Jamu Mare). Heliothermal

resources are smaller than the vine necessary and the hydric ones outruns vine's necessary. The main production goal it is to obtain red wines of superior quality from the following varieties: Cabernet Sauvignon, Chasselas rosse, Muscat de Hamburg and Muscat de Adda.

We made observations and determinations in 4 viticultural exploitations from Recas Viticultural Centre, 2 exploitations from Minis Viticultural Centre, 6 viticultural exploitations from Buzias – Silagiu Viticultural Centres and one from Tirol – Jamu Mare Viticultural Centre

Results and discussions

Table 2

Pedoclimatic resources synthesis

Viticultural centre	Helio-thermal index (IH)	Hidrothermic coefficient (CH)	Temperature °C			Altitude (m)	Soil types
			Absolute minimum	Absolute maximum	Multi-annual average		
Recaş	2,04	1,1	-31,6	40,5	10,6	167	Haplic luvisols
Silagiu	2,01	1,5	-30,1	41,2	10,8	169	Haplic luvisols, eutriccambisols, regosols
Teremia	2,27	0,9	-34,5	42,0	10,7	50	Calcic chernozems, gleyic chernozems
Tirol	2.17	1,1	-28,7	40,8	11,4	165	Haplic luvisols
Miniş	2,11	1,3	-24,7	41,5	11,2	176	Eutric cambisols, haplic luvisols, regosols

After data presented in Table 2 it comes out that the western region of Romania provides favorable and very favorable conditions for vine cultivation. The heliothermal index has values situated between 2,04 for Recas and 2,27 at Teremia.

From hydrothermic coefficient viewpoint, Teremia viticultural centre has a slight precipitation deficit, meantime the rest of the areas are showing equilibrium from this viewpoint. Concerning absolute minimum values we observe a bigger climatic rise for Teremia area, which is situated on a relative plane terrain.

According to data provided by www.timis.insse.ro, west Romanian region it is formed from the following viticultural areas (table 3):

Table 3

Fruit-bearing vines surface in the year 2005

Region/County	Fruit bearing vines-total		Grafted and aboriginal vines		Hybride vines	
	Total	From which: majority private property	Total	From which: majority private property	Total	From which: majority private property
Arad	2524	2524	2104	2104	420	420
Caraş-Severin	554	554	350	350	204	204
Hunedoara	11	5	6	-	5	5
Timiş	2644	2644	2249	2249	395	395
Total west region	5733	5727	4709	4703	1024	1024

The western region of Romania occupies an important weight in the national viticultural patrimony, totalizing according to the official statistic in the year 2005 a surface of 5733 ha, and the majority of the viticultural plantations being in private property.

The biggest part of those plantations is occupied with noble varieties, being also important surfaces occupied with direct productive hybrids; those surfaces were foreseen in the reconversion programs in order to be replaced with noble varieties.

From these four county of the region, the biggest surface is merged in Timis county (2644 ha) and Arad county (2524 ha), those representing, due to their viticultural areas one of the most famous viticultural area from Romania.

In Recas viticultural centre, researches were done in four exploitations: Recas Wine Cellars with a surface of 700 ha, Aldegheri with a planned surface of 60 ha, Enotria with 101 ha and Vigna with 122 ha.

All four exploitations have private capital with 100% Romanian and foreigners investors.

Exploitations are constituted, excepting Recas Wine Cellars, in the last 5-6 years, this period being marked by a viticulture recovery from this part of the country, which after 1989 events registered decline period.

Table 4

Viticultural exploitations

Viticultural centre	Exploitations	Surface (ha)	Cultivated varieties
Recaş	Recas Wine Cellars	700	Chasselas dore, Muscat de Hamburg, Afuz Ali, Victoria, Fetească Albă, Fetească regală, Riesling italian, Sauvignon blanc, Chardonnay, Pinot gris, Pinot noir, Cabernet Sauvignon, Cadarcă, Creaţă
	Enotria S.R.L.	101	Caberbet Sauvignon, Merlot, Pinot Noir, Burgund mare, Fetească neagră, Pinot Gris, Sauvignon Blanc, Fetească Regală, Riesling italian, Chardonnay, Muscat Ottonel
	Aldegheri S.R.L.	60	Fetească regală, Chardonnay, Muscat Ottonel, Burgund, Riesling italian, Pinot gris, Fetească neagră, Merlot, Cabernet Sauvignon, Pinot noir, Burgund, Cabernet Sauvignon
	Vigna S.R.L.	122	Fetească regală, Chardonnay, Muscat Ottonel, Burgund, Riesling Italian, Pinot gris, Fetească neagră, Merlot, Cabernet Sauvignon, Fetească regală, Riesling italian
Miniş-Măderat	Genagricola S.R.L.	283	Fetească albă, Fetească regală, Pinot gris, Sauvignon, Mustoasă de Măderat, Fetească neagră, Merlot, Cabernet, Sauvignon, Pinot Noir, Burgund.
	San Pietro S.R.L.	38	Fetească albă, Pinot gris, Sauvignon, Pinot Noir, Fetească neagră, Merlot, Cadarcă, Burgund, Cabernet Sauvignon, Merlot
Buziaş-Silagiu	Megaprofil S.R.L.	50	Fetească albă, Fetească regală, Muscat Ottonel, Riesling Italian, Riesling de Rhin, Pinot gris, Fetească neagră, Merlot, Băbească neagră, Cabernet Sauvignon

	P.F.A. Moica Ioan	5	Cabernet Sauvignon, Pinot noir, Muscat Ottonel, Riesling italian, Muscat de Hamburg, Silvania, Victoria
	Obsesia S.R.L.	66	MuscatOttonel, Riesling Italian, Sauvignon, Fetească regală , Feteasca albă, Cabernet Sauvignon, Pinot Noir, Burgund
	Poetim S.R.L.	50	MuscatOttonel, Pinot Gris, Sauvignon, Fetească regală ,Feteasca albă, Cabernet Sauvignon, Pinot Noir, Burgund, Victoria, Muscat Hamburg, Muscat Adda
	Buttenberg Foundation	6	Cabernet Sauvignon, Merlot
Tirol - Jamu Mare	Bionature S.R.L.	56	Pinot noir, Cabernet Sauvignon, Merlot, Sauvignon Blanc, Riesling italian

In Minis – Maderat viticultural centre we oriented our researches in two private exploitations with Romanian – Italian joint capital.

In Buzias – Silagiu viticultural centre, due to exaggerated property breaking down viticultural exploitations established in the last few years have small dimensions.

At Jamu Mare –Tirol, besides that represents a viticultural area with tradition, viticulture raising it's not adequate; being registered one viticultural exploitation.

The highest part of these exploitations surfaces (over 80%) is occupied with wine varieties and only a small part is occupied with table grapes varieties.

The varieties assortments vary including also autochthonous varieties: Feteasca alba, Feteasca regala, Mustoasa de Maderat, Creata and universal varieties: Riesling Italian, Chardonnay, Cabernet Sauvignon, Merlot and Pinot noir. As a characteristic of the assortment, is the high number of varieties, due to the fact that exploitations are new, being in search of different niches on the world's wine market.

In order to follow the present evolution on the following period too, of those viticultural exploitations in table 5 we present data concerning planting graphic in 2004-2010 period, this graphic being made relying on concrete data obtained in the field (for 2004-2007 period) and on planting wrights obtained from Agricultural Direction (for 2008-2010 period).

Recas Wine Cellars and Buttenberg Foundation were the exploitations that started the planting process in the year 2004.

Starting with 2005, and mostly with 2006 and 2007 was registered an accented increase of the new established plantations which in accordance with planting wrights it is foreseen to continue in the following three years.

This planting intensification has in our opinion more causes:

- The increase of the investors number in viticulture, as a result of Romania adhesion to EU;
- Viticultural exploitations profitableness due to capitalization, which offered them a proper endowment;
- Important sum of money distribution through different programs towards the viticultural sector, especially for plantations restoration.

Table 5

Exploitations planting graphic in 2004-2010 period

Viticultural centre	Exploitations	Planted surface							
		2004	2005	2006	2007	2008	2009	2010	Total
Recaş	Recas Wine Cellars S.R.L.	32	52	73	90	110	100	-	457
	Enotria S.R.L.	-	25	22,46	15,95	17,89	19,7	-	101
	Aldegheri S.R.L.	-	-	-	7,02	20	12,98	20	60
	Vigna S.R.L.	-	18,81	17,43	25,86	26,68	15	18,22	122
Miniş-Măderat	Genagricola S.R.L.	-	-	-	11,38	30	90	151,64	283
	San Pietro S.R.L.	-	-	-	5	8	8	17	38
Buziaş-Silagiu	Megaprofil S.R.L.	-	-	1,74	14,18	13,84	13,46	6,78	50
	P.F.A. Moica Ioan	-	-	5	-	-	-	-	5
	Obsesia S.R.L.	-	-	12,62	24,72	28,66	-	-	66
	Poetim S.R.L.	-	-	6,39	26,22	17,39	-	-	50
	Buttenberg Foundation	6	-	-	-	-	-	-	6
Tirol – Jamu Mare	Bionature S.R.L.	-	-	-	-	56	-	-	56
Total	-	38	95,8	138,6	220,3	328,4	259,1	213,6	1294

Conclusions

The Western part of Romania represents an important viticultural area with a big weight in Romanian viticulture it offers favorable and very favorable natural conditions for vine cultivation, especially for high quality wines varieties.

Geographical placement and superior substructure of the other viticultural areas of Romania attracted a high number of investors especially in the last years period, which contributed to the viticulture raising the bid of this area.

As a result of the investments, had appeared numerous viticultural exploitations, which passed to old plantations replacement with new, performant ones.

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ALIN DOBREI, professor, Banat's University of Agricultural Science and Veterinary Medicine, Faculty of Horticultural, Calea Aradului nr 119, 300645, Timisoara, Romania, phone number: 0256.277.055, e-mail address: alin1969tmro@yahoo.com

FLORIN SALA, lecturer, Banat's University of Agricultural Science and Veterinary Medicine, Faculty of Agricultural, Calea Aradului nr 119, 300645, Timisoara, Romania, phone number: 0256.277.280, e-mail address: florin_sala@yahoo.com

IASMINA SAVESCU, trainer for a doctor's degree, Banat's University of Agricultural Science and Veterinary Medicine, Faculty of Agricultural, Calea Aradului nr 119, 300645, Timisoara, Romania, phone number: 0256.277.236, e-mail address: iasmina_savescu@yahoo.com

ELISABETA KOCIS, trainer for a doctor's degree, Banat's University of Agricultural Science and Veterinary Medicine, Faculty of Agricultural, Calea Aradului nr 119, 300645, Timisoara, Romania, phone number: 0256.277.236, e-mail address: kociselisa@yahoo.com

MIHAI MUSTEA, lecturer, University of Agricultural Science and Veterinary Medicine "Ion Ionescu de la Brad", Faculty of Horticultural, Iasi, Romania, phone number: 0744537578, e-mail address: musteaimihai@yahoo.com