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## Wine production on Istria family farms

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### ABSTRACT

Viticulture in Istria is considered as a pillar in the agricultural economy. Wine tourism is present in Istria in the last two decades along with the establishment of wine roads. There are three existing wine roads in Istria. One of the activities on the wine road is wine tasting. From the perspective of the family farms it is a service that offers the farm product (wine) directly to consumers. We questioned farmers on Istrian wine roads and partners in Vinistra (the Istrian association of grape and wine producers) the wine offer and concluded that most wine cellars offer wines like Malvazija istarska and Teran from autochthonous varieties, Chardonnay and Cabernet Sauvignon from introduced grape varieties, was examined. Very few wine cellars offered wines like Borgognja, Hrvatica or other. Also issues like consumer's preferences and possible solutions of enhancing the wine offer and wine roads of Istria in general were referred.

**Keywords:** Croatia, Istria, wine, marketing

### IZVLEČEK

#### PONUDBA VIN NA ISTRSKIH KMETIJAH

Vinogradništvo sodi v Istri med temeljne kmetijske panoge. Vinski turizem, se je na tem območju v zadnjih dveh desetletjih razvijal skupaj z ustanavljanjem tako imenovanih vinskih cest. V Istri so se uveljavile tri vinske ceste. Ena od dejavnosti na vinskih cestah je tudi degustacija vin. Z vidika družinskih kmetij je to storitev oz. izdelek (vino), ki je neposredno ponujen potrošnikom. V raziskavo so bili vključeni kmetje na Istrskih vinskih cestah in partnerji v Vinistra (istrsko združenje pridelovalcev grozdja in vina). Iz analizirane ponudbe vin je bilo ugotovljeno, da večina vinskih kleti ponuja vino iz avtohtonih sort (istrska malvazija in teran) ter iz introduciranih sort (chardonnay in cabernet sauvignon). Zelo malo vinskih kleti ponuja vina kot so Borgognja, Hrvatica ali druga. V raziskavo so bila vključena tudi nekatera druga vprašanja, kot so preference potrošnikov in možne rešitve za izboljšanje ponudbe vina na splošno in na vinskih cestah Istre.

**Ključne besede:** Hrvaška, Istra, vino, ponudba

## 1 INTRODUCTION

From the aspect of wine production, the world can be divided into traditional wine producing countries and new world wine production countries. Taking this classification into consideration, Mediterranean countries would fall under classification of traditional wine producing countries, due to the fact that wine production has been an important area of agriculture in Mediterranean countries since ancient times.

Wine as an agricultural product is important for about four hundred agricultural companies and more than five thousand family farms in Croatian part of Istria since it

creates income for them. During the last two decades viticulture production was put in focus of Croatian and Istria agricultural policy. The policy provided measures of financial support on state and regional level to all interested for vineyards planting, buying land property and enhancing production of seedlings (Pribetic and Ilak Persuric, 2006). Special measures for preservation of autochthonous varieties were too a priority (Persuric B. et al., 2006, 2008.). In Istria, according to statistical census in 2003 there were 13.534 agricultural households and 72 businesses in Istria County which represented 3.02 percent of total households in Croatia

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entities and 5.28 percent of business entities, 9.309 households with vineyards and 19 business entities in Istria County which represented 6.05 percent of total households with vineyards and 13.01 percent of total business with vineyards. Istria County participates with 3.99 percent in total available land surface area and 2.29 percent in utilized agricultural land, while in the case of vineyards this percentage is higher, 11.01 percent in total vineyard area and 11.27 percent in fertile vineyard area.

Istria produces in majority white grape varieties (80%) and less red grape varieties. Malvazija istarska, a white autochthonous variety, is a leading variety in the wine production. The production is forwarded mainly for sales at the regional level where a major part is sold to tourists during their holiday stay in Istria. Wine is an important segment in destination management of Istria (Ruzic et al. 2006: 103). Tourists preferred especially the autochthonous wines, such as Malvasia istarska and Teran, Borgonja and Hrvatica (red). Other wines attractive to tourists were from introduced grape varieties as Chardonnay, Refosco, Merlot and Cabernet Sauvignon (Ruzic et al. 2006: 108). According to Martinez-Carrasco et al. (2006) type of wine is also very important wine attribute.

In wine marketing (sales) producers usually choose two quite distinct distribution channels: indirect and direct distribution. In choosing the best distribution channel

wine producers must take into account sales goals they want to achieve and must be aware that the purchase place is a very important factor in connection to certain wine preferences (Martinez-Carrasco et al. (2006). On farm sales i.e. wine cellar sales is one of the direct wine distribution channels. Different marketing studies underline the importance of wine cellar sales due to the fact that this kind of sales, through tasting rooms, can assist in the process of building brand image and in creating consumers loyalty (Nowak and Newton, 2006; Alonso, A. D. et al., 2008), increase wine sales, educate potential consumers and stimulate worth of mouth (Gurau, C. and Duquesnois, F., 2008).

New trends in the wine sales demand quick adaption to those changes (Hall and Mitchell, 2000). These trends differ among countries but according to Hertzberg and Malorgio (2008) different market typologies are slowly converging towards quite similar consumption patterns, moving towards quality products (Hertzberg and Malorgio, 2008; Wittwer et al., 2001) so quality is becoming a key issue for wine producers and wine consumers. According to different authors one of the most important wine attribute is ageing (Mtimet and Albisu, 2006; Martinez-Carrasco et al., 2006) and designation of origin (Mtimet and Albisu, 2006; Martinez-Carrasco et al., 2006; Lai et al., 2006).

## 2 METHODOLOGY

During the scientific project "Valorisation of resources of *Vitis* sp." 2006-2011., financed by the Croatian Ministry of science, education and technology, a survey was carried out about wine producers in Istria (in March/April 2009.). The sample of wine producers represented all the prominent, market oriented producers in Istria County. The sample consisted of the members of Vinistra - association of winegrowers and winemakers of Istria. The sample was estimated to be approximately 118 wine producers out of which 40 examples were randomly selected (at confidence level of 95%, percentage 50, confidence interval 12.65).

The questionnaire contained 13 questions split in three groups. The first group of questions was related to wine production and sales in general. The second group of questions focused on elements of wine tasting facilities and the third group on demographic data of respondents. It was targeted to farmers, wine producers, while enterprises were excluded. Data were processed using statistical methods i.e. univariate (frequencies, percentage, mean) and bivariate statistics ( $\chi^2$  test, contingency coefficient).

The main purpose of this paper is to examine wine production and on farm sales on family farms in Istria County.

## 3 RESEARCH RESULTS

Respondents (members of Vinistra) were in average two decades in wine business, so called the modern, market oriented, highly productive and income generating production. The reason of such short time in business were caused by political circumstances before the 90ties of 20th century which didn't allow to private producers to bottle their wine and sell them under own name. The entrance of new producers and new brands of

established producers changed the overall market structure and the general production of quality wines increased. In average the producers were twenty years in viticulture production and had wine tasting facilities in average with forty one seats and annually received about nine hundred persons (See Table 1).

**Table 1.** Business features of responders

Variable	Mean	Minimum	Maximum
Years in wine production	20.03	1	40+
Years in wine sales	10.70	1	40+
Capacity of wine tasting facilities *	41.05	10	100
Number of visitors - annually *	959.33	10	3200

Note: \* 20 responders had wine tasting facility.

Source: Institute of Agriculture and Tourism, Porec, Questionnaire - wine offer in Istria County, processed by authors

According to age, producers were in majority over forty, male and with secondary education. The youngest had twenty years of age and the oldest seventy three. Every third producer had finished higher education. Most of

the responders were male and were not located on one of the three established wine roads in Istria County (Table 2).

**Table 2.** Socio - demographic features of responders

Socio-demographic indicator		Responders	
		Frequency	%
<b>Age group</b>	20-29	6	14.29
	30-39	3	8.57
	40-49	15	37.14
	50-59	14	34.29
	60+	2	5.71
<b>Gender</b>	Male	36	90.00
	Female	4	10.00
<b>Level of education</b>	High school	24	60.00
	College	12	30.00
	University	2	5.00
	Masters or Ph.D.	2	5.00
<b>Location of wine cellar</b>	Wine road Buje	6	15.00
	Wine road Buzet	1	2.50
	Wine road Poreč	11	27.50
	Not on the wine road	22	55.00

Source: Institute of Agriculture and Tourism, Poreč, Questionnaire - wine offer in Istria County, processed by authors

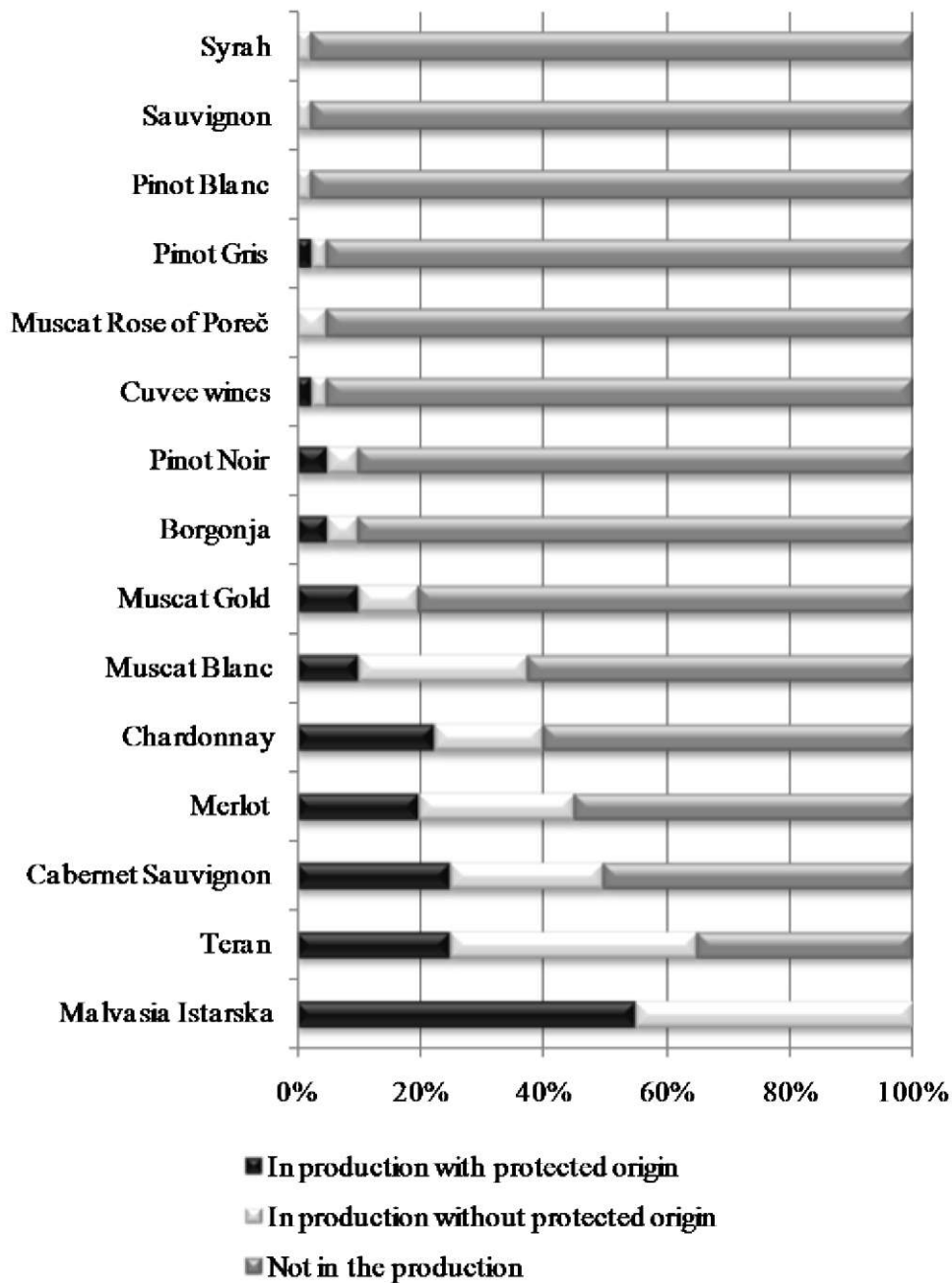
Producers that were in the wine business up to twenty years were selling in most cases the wine in their own wine tasting space; about 45,9% of the ones ten years in the wine production and 43,2 of them twenty years in production. The producers that had a longer tradition of wine producing were the ones with less than 5 percent in on farm sales.

In production the majority producers (two thirds) produced their own grapes, which give them a guarantee

of a certain quality level set by every individual wine producer. One third produced their own grapes and bought from other producers probably in order to maintain their wine quantity or quality or due to the fact that demand for their wines is increasing so it was necessary to increase wine production. Some of them had contracts with other producers in order to determine the production technologies (for example how many grapes should be on a wine stock, what the yield per hectare should be, what kind of chemicals to use etc.).

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Figure 1. Types of wine in production



Source: Institute of Agriculture and Tourism, Porec, Questionnaire - wine offer in Istria County, processed by authors

On surveyed family farms all farmers produced Malvazija istarska and two thirds of them produced Teran (red). Both wines are well known autochthonous wines. About half of producers had wines made of introduced grape varieties as Chardonnay and Muscat (white) and Cabernet Sauvignon and Merlot (red). From the quality point of view, out of all interviewed producers which had Malvazija istarska, Teran and

Bourgogne in production, half of them had a label of protected geographical origin (KZP or GP) (Figure 1). Results of wine production on wine producers comply with research on tourists' preferences for wine where tourists selected white wines and autochthons wines as their preferred wines (Ruzic et al. 2006) probably due to the fact that tourism is one of the most important segment of wine consumption.

Wine producers in Istria County are adapting to the changes in wine demand which is moving towards quality products (Hertzberg and Malorgio, 2008; Wittwer et al., 2001).

According to the amount of sugar in wines, most producers produced dry wines. Half of them produced wines in barrique barrels. In the production of quality wines, the majority of producers had bottled wines while less than 15% had both bottled and bulk wines. This fact is important because bottled wines are more expensive and farms gain extra profits comparing to bulk wines. From the other side bottled wines demand

more knowledge and care in production. That is the fact also for wines that have a purpose for archive i.e. consumption after several years of ageing (these characteristics are presented in table 3). Wine production technologies tend to use inox tanks, especially for white grape varieties since they preserve freshness and fruitiness of wines. These type of wines should be consumed within two years. For aged wines producers used oak barrels, especially for red wines. Standard oak barrels and barrique barrels contribute to more complex wine taste and enhance aroma intensity and flavour. Therefore these wines can have a potential for ageing.

**Table 3.** Certain characteristics of wine offer

Characteristic		Frequency	Percentage
Content of sugars	Dry	39	97.50
	Semi-dry	14	35.00
	Sweet	5	12.50
Barrique	Yes	23	57.50
	No	17	42.50
Type of packaging	Bottled and bulk	35	87.50
	Only bottled	5	12.50
Wines by ageing time	Exclusively aged	1	4.00
	Exclusively young	11	44.00
	Young and aged	13	52.00

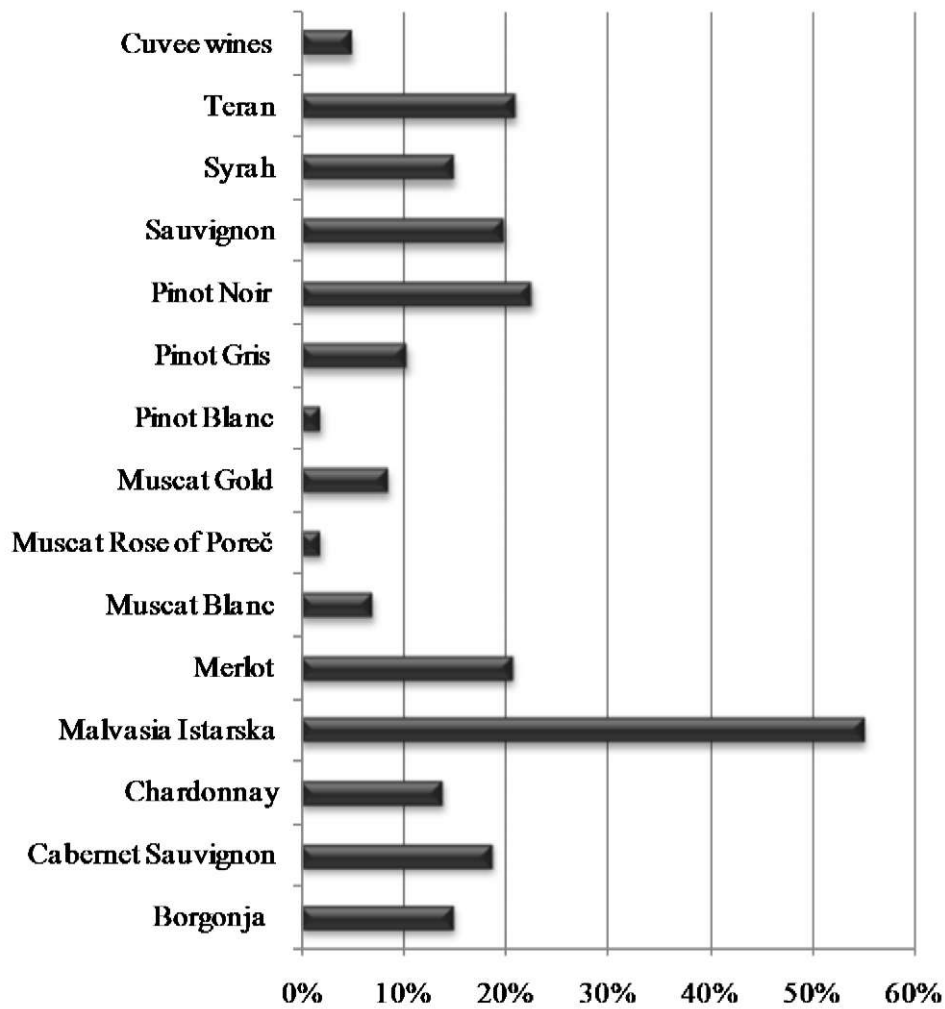
Source: Institute of Agriculture and Tourism, Porec, Questionnaire - wine offer in Istria County, processed by authors

The majority of producers were selling wine on-farm in the wine cellar and half of them had a wine tasting and selling space. It is obvious that wine producers realised importance of cellar door sales, through tasting rooms proven by Nowak and Newton (2006) and Alonso, A. D. et al. (2008). Although on farm sales are an important distribution channel it has to be underlined that in the case of indirect wine distribution channels 80% of wine producers were also selling their wines to restaurants while the least of them were selling through shops and supermarkets. According to Martinez-Carrasco et al. (2006) designation of origin is very important when wines are purchased in restaurants,

whereas in shops, purchase decision is basically influenced by the type of wine. Wine distribution in restaurants is an additional reason for the producers to produce a high number of wines with a label of protected geographical origin, but it has to be stressed that Martinez-Carrasco et al. (2006) also determined that consumers are more price conscious in restaurants probably due to the high prices of quality wines.

The percentage of sales in average is shown in fig. 3. which shows that Malvasia istarska is the wine the highest average percentage in sales.

**Figure 3.** Average stake in sales



Source: Institute of Agriculture and Tourism, Poreč, Questionnaire - wine offer in Istria County, processed by authors

Malvasia sales were followed by Pinot noir, Teran and Merlot. Production and sales of Malvasia istarska

varies from being the only type of produced wine (100%) to being one of produced wines (Figure 3).

#### 4 CONCLUSION

Wine producers in Istra are focused in majority to production and sales of autochthonous wines, in first line to Malvazija Istarska and Teran (red) wines. In second line the production was headed to Cabernet Sauvignon and Merlot (red) and Chardonnay (white

wine) as examples of wines made from introduced grape varieties. Half of these wines were produced with a label of geographically protected origin. Very few producers had Pinot Noir, Gris, Blanc, Muscat Rose of Poreč and Sauvignon in production.

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