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Mediterranean Malvasias

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THERE IS NO SUCH THING AS MALVASIA

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Malvasia does not exist! This is a generic term for a wide range of different varieties with white, pink, grey or black skins, most of them sharing the ability to produce sweet wines with a high alcohol content. The name supposedly derives from Monemvasia, a tiny port village on the east coast of the Peloponnese in Greece, where all the various Malvasia grape varieties allegedly come from. Indeed, historical documents provide evidence that sweet wines from Monemvasia were already traded in the 13th century in Ephesus (Greece) and Venice (Italy). However, the identity of the grape varieties that were used to make sweet wines in Monemvasia is still unknown, although it is believed that this was a blend of indigenous varieties such as Kydonitsa, Liatiko, Asproudi and... Monemvasia among others. Numerous DNA studies have shown that the varieties known as "Malvasia Something" are genetically very different and generally do not share a common origin. Therefore, it makes no sense to speak of a "Malvasia family". This keynote presentation will provide an overview of the history, the origin, the etymology, the distribution, and the genetic links of the most important "Malvasia Something" around the world.

HISTORICAL CROATIAN CULTIVARS OF MALVASIAS AND THEIR GENETIC RELATIONSHIP WITH OTHER TRADITIONAL CULTIVARS

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This study presents the agrobiological and genetic characteristics of traditionally grown Malvasia cultivars in Croatia. The Croatian Malvasia group comprises the following cultivars: 'Malvasija dubrovačka' (synonymous 'Malvasia de Sitges' and 'Malvasia delle Lipari'), 'Maraština' (synonymous 'Malvasia bianca lunga'), 'Malvazija Istarska', and 'Plavina' (synonymous 'Malvasia nera antica'). Morphometric analysis of grapes and leaves reveals that the Croatian Malvasias do not belong to a single morphological type; rather, they exhibit distinct differences from one another. 'Malvasija dubrovačka', 'Maraština', and 'Malvazija Istarska' have green-yellow skins, whereas 'Plavina' has a blue-black skin. 'Malvasija dubrovačka' and 'Maraština' display very long clusters with wings, while 'Malvazija Istarska' and 'Plavina' have medium-long clusters. The authenticity of all four cultivars was confirmed through an analysis of 16 SSR markers. A phylogenetic relationship with other traditional Croatian cultivars was estimated. The study detected a relatively high number of alleles in the four Croatian Malvasias, which are also found at a high frequency in the Croatian population. This suggests a close genetic relationship between the studied Malvasias and traditional Croatian cultivars. Based on the available whole genome resequencing data for 'Malvasija dubrovačka', 'Maraština', and 'Plavina' (Dong et al., 2023), the previous phylogenetic reconstruction was improved. The parentage of the set of 3,525 different accessions was assessed, identifying a total of six parent-offspring pairs (PO) for 'Malvasija dubrovačka', 'Maraština', and 'Plavina'. This finding suggests that these cultivars represent ancient cultivars widely grown in the eastern coast of the Adriatic and distributed among neighbouring countries.

CROATIAN GRAPEVINE BREEDING PROGRAM – EXPLOITATION OF GRAPEVINE GENETIC RESOURCES FOR ADAPTATION AND RESILIENCE

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Croatian viticulture is based on native grapevine varieties susceptible to various diseases and pests, which leads to the unsustainable use of pesticides. The sustainable development of viticulture in the future will only be possible by increasing the resistance of the grapevine through the development of new resistant varieties. Breeding programs have been launched in the leading wine-growing countries to develop high-quality resistant varieties. Native cultivars from Croatia are not included in the breeding programs of other countries. In 2015 a breeding program was started at the University of Zagreb Faculty of Agriculture. The long-term goal is to develop stable and durable resistance in the new varieties, using native germplasm and other sources of resistance. The developed varieties should be suitable for Croatian growing conditions. Several native varieties were selected as a starting point for the breeding program: Grk and Dišeća ranina with the aim of developing breeding lines with female flowers, and Malvasija dubrovačka, Maraština, and Plavac mali for the development of new resistant cultivars. The source of resistance in the first stage of the program is the Panonia variety. Applying molecular markers in the population of seedlings expressing the high level of phenotypic resistance to downy mildew, several plants were detected that inherited all three resistant genes (Rpv3, Rpv12 - downy mildew resistance, Ren3 - powdery mildew resistance) from Panonia. Among them are two highly resistant genotypes from Maraština and one from Malvasia dubrovačka as the second parent. Following these results, the process of their quality assessment is started.

THE RECOVERY OF THE HEALTH STATUS OF BANYALBUFAR MALMSEY AS STARTING POINT OF A SUSTAINED INCREASE IN ITS CROPPED AREA AND MALMSEY WINES IN MALLORCA

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Banyalbufar malmsey, the Majorcan malmsey is an “aromatic” one, with interesting prestige in the pass century. It was progressively abandoned along XX century and at the end of this century recovered the interest but it presented a multiple virus infection. The recovery of its sanitary status by meristem “in vitro” culture enabled to obtain officially the certified as virus-free malmsey. From this “starting point”, the recovery is being noticed inside the increasing interest for autochthonous varieties. In the present communication we are showing the effect of such recovery on the variety use by local vineyards and cellars after it was released to the market. Nowadays, there are an increasing interest in malmsey wines and lot of new wines are going to the market, showing an interesting effect of virus cleaning on the recovery of this local variety and opening new opportunities inside the malmsey world.



IN VITRO CULTURE OF HEALTHY AND INFECTED GENOTYPES OF CV. 'MARAŠTINA'

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In vitro culture of healthy and infected genotypes of cv. 'Maraština'. In vitro culture can be efficient in the production of virus-free plants and a rapid multiplication. However, grapevine cultivars respond differently to the tissue culture conditions and testing of protocols for each cultivar are needed. Cultivar 'Maraština' was tested in tissue culture conditions with one healthy and two virus-infected cultivars. Buds taken from shoots were inoculated to the half-strength Murashige and Skoog (MS) medium. Healthy genotype was tested additionally on MS and MS+1 mg/L 6-benzyladenine (BAP) media. The growth parameters (height of plants and number of nodes were measured), as well as occurrence of vitrification, callus and deformed shoots. Results revealed the highest values of growth on MS medium for all genotypes, especially for healthy genotype, whereas, addition of BAP in the medium cause vitrification, callus and deformed shoots. Infected genotypes reacted in lower growth parameters in comparison with a healthy one. Thus, in vitro protocols are applicable for cultivar 'Maraština', especially sanitation programs for infected genotypes and multiplication protocols for the healthy one.

THE MALVASIA GRAPES IN PORTUGAL

Jorge Cunha and J.E. Eiras-Dias

Many varieties of Malvasia grapevines have been producing excellent wines and wine brands in Portugal, contributing to the distinctiveness of Portuguese enogastronomy and the Portuguese lifestyle in general. For years, Malvasias have been intriguing the expert and scientific public with many unknown aspects - how many are there and are they related? Why were the different varieties given the same or similar name? Where do they come from? To what routes did they spread and how did they become one of the oldest and most famous wine brands? In Portugal historical remains and actual knowledge show us the evolution of assortments and how some of Malvasias are confounded with other varieties. The role of the identification of Malvasias can be a key to grapevine sustainability in the future.



HOW TO IMPROVE A SUCCESSFUL PRODUCT? THE CASE STUDY OF THE “MONEMVASIA-MALVASIA” PDO WINE

Georgios Merkouropoulos, Dimitrios-Evangelos Miliordos, Georgios Tsimpidis, Yorgos Kotseridis

The term Malvasia specifies the wines that are produced by any member of the great Malvasia wine grape varieties family; the term, however, has also a geographical meaning indicating the Byzantine city of Monemvasia at the south-east site of Peloponnese, Greece, and therefore, referring to a Protected Designation of Origin wine produced by local varieties of the wider Monemvasia region. Our present study, focuses on the “Monemvasia-Malvasia” wine produced by the “Monemvasia Winery Tsimpidi” as a blend of four local varieties: “Monemvasia”, “Kydonitsa”, “Assyrtiko”, and “Asproudi”, at different proportions. Initially, the hypothesis that “Asproudi” is a distinct variety was questioned: indeed, our molecular (microsatellite) results showed that “Asproudi” is actually a collection of white grape varieties that mature about the same period of time. Comparison with the molecular profiles of the varieties maintained by the one and only official curator of the autochthonous Greek varieties, the Hellenic Agricultural Organisation DIMITRA, identified some of the varieties that constitute what is known as “Asproudi”. Subsequently, targeted harvest of each of the constituting “Asproudi” varieties, micro-vinifications, conventional wine analysis (according to OIV), and sensory analysis by professionals were performed in order to evaluate the oenological potential of each of the constituting varieties identified. We concluded that the first step towards the improvement of a successful product is to define accurately its identity enabling targeted actions in the subsequent vinification process.

EFFECTS OF CROP LEVEL AND FRUIT ZONE SUNLIGHT EXPOSURE ON ISTRIAN MALVASIA PRODUCTIVE CHARACTERISTICS, WINE COMPOSITION AND SENSORY QUALITY

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In this study we investigated the effects of crop level and fruit zone sunlight exposure on Istrian Malvasia wine composition and sensory quality during seasons 2015 and 2016. Treatments included two crop levels (single and double Guyot training systems, with 10 and 20 buds per vine, respectively) and two fruit zone sunlight exposure conditions (leaf removal and untreated control), combined in a two-factorial design. Yield was affected only by crop level, and with double Guyot training system the yield was increased by 40% in 2015 and 29% in 2016, due to the greater number of shoots and clusters per vine. Crop level showed limited impact on aroma compounds in wine and the concentration of some esters was even increased by higher crop level. On the other hand, fruit zone sunlight exposure increased the concentration of several aroma compounds and especially of monoterpenes and esters. The concentration of hydroxycinnamic acids in wine was enhanced only by fruit zone sunlight exposure, while the investigated factors did not obtain a consistent impact on hydroxybenzoic acids in wine. Concerning the sensory quality of wines, in both seasons the highest scores for overall quality of wines were obtained by a treatment combining single Guyot with leaf removal, followed by double Guyot with leaf removal. The results suggest that in cases where environmental conditions are not limiting, increasing the crop level under adequate microclimate in the fruit zone has no detrimental effects on Istrian Malvasia wine sensory quality, potentially leading to economically more sustainable grape production.

EFFECT OF TERROIR UNDER TWO VINTAGES ON VOLATILES OF MALVASIA DUBROVAČKA WINES

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The concept of terroir is based on the presumption that wine chemical composition can be ascribed to defined geographical areas where grapes and wine have been produced; thus, this concept is utilized to describe particular combinations and interactions of natural and human factors that gave peculiar characteristics to the wine. In general, wine volatile organic compounds (VOCs) contain numerous chemical compound groups, including terpenes, esters, alcohols, acids, C13-norisoprenoids, etc. Therefore, this research aimed to study terroir's effect on the VOCs of Malvasia Dubrovačka wines (known as Malvasia delle Lipari) produced by two different wineries (Karaman and Bratoš) under two vintages. The identification and quantification of VOCs were conducted by gas chromatography-mass spectrometry. In total, 63 individual VOCs were quantified. The numerous significant differences determined for most of the analysed VOCs clearly manifest the impact of the terroir and vintage as well. The Malvasia Dubrovačka wines of Karaman showed the highest total concentration of analysed VOCs in both vintages. The VOC components showing the most significant differences in Malvasia Dubrovačka wines from different areas were terpenes and acids. Among the terpenes found, linalool was markedly abundant in Bratoš wines, while limonene was most abundant in Karaman wines. Among the acids, 3-methylbutanoic and hexanoic acids showed the highest concentrations in Bratoš and Karaman, respectively. The principal component analysis revealed four clearly defined main groups of Malvasia Dubrovačka wines from different terroirs and vintages.

ASSESSMENT OF SUNBURN BROWNING SYMPTOMS ON 'MARAŠTINA' GRAPES IN THE ADRIATIC REGION OF CROATIA

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Long-term exposure of clusters to high-intensity light and high temperatures leads to physiological changes in berries characterized as oxidative stress. Visual symptoms manifest as pigmentation changes on the skin, such as yellowing, browning, the appearance of necrotic lesions, and in extreme cases, drying of berries. Little is known about the frequency of sunburn in grapes in commercial production areas in Croatia. Therefore, this research was conducted on the yellow-green skinned 'Maraština' cultivar, which is important for white wine production in the Dalmatia. Samples were collected from various locations in Dalmatia throughout 2021 and 2022. The aim of this research was to define and evaluate colour changes on the berries using CIELAB coordinates, and to record differences in basic chemical parameters (sugar, total acidity, and pH) between berries with visual browning symptoms (sunburned) and symptom-free berries (controls). A two-way analysis of variance procedure was used to examine the effects of grape sun exposure and location on the CIELAB colour coordinates and basic quality parameters in grapes. The study showed that lightness (L^*), redness - green (a^*) colour variables and weight of 100 berries were greatly affected by grape sun exposure, while all investigated variables were affected by the location. Interestingly, the yellow - blue (b^*) colour variable was not influenced by grape sun exposure. These findings reveal sensitivity of the berry skin of 'Maraština' to sunburn exposure in the hot Adriatic region of Croatia and necessity to protect clusters from direct exposure.

Key words: Oxidative stress, Maraština, Sunburn, CIELAB coordinates, Dalmatia

TECHNOLOGIES FOR ENHANCING THE AROMATIC POTENTIAL OF MALVASIA GRAPES

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In the present study, carried out in some Croatian wineries, traditional and innovative technologies were evaluated, in order to study the response on the aromatic characteristics of the Malvasia wines. The traditional technology was enzyme with pectolytic enzymes also containing β -glycosidases, while the innovative technology was ultrasound on the crushed grapes, a technique recently authorised by the OIV and the EU. Vinification tests were carried out in real cellar conditions. The results made it possible to verify the effectiveness of the enzymatic intervention at the end of alcoholic fermentation with positive responses compared to the untreated control. The experiments with ultrasound were carried out on a pilot scale, a thesis provided for the two-minute treatment of the crushed grapes with ultrasound and subsequent pressing, the control was instead represented by the 24-hour maceration at 15°C. The analytical data of the total thiols detected on the wines and the sensory evaluations made it possible to evaluate the ultrasound treatment as a valid low-input technique as an alternative to the traditional maceration. Direct effects of ultrasound on thiol precursors were also highlighted, with release of the free thiol fraction without the intervention of yeast β -lyase. The experiences carried out have made it possible to verify the reactivity of Malvasia to the various technological interventions aimed at enhancing the aromatic potential of the grape with a reasoned integration of traditional and emerging techniques. Depending on the oenological objective, there are margins for choosing low-impact techniques to enhance the aromatic potential of Malvasia.

Key words: Oxidative stress, Maraština, Sunburn, CIELAB coordinates, Dalmatia

THE EFFECT OF ENZYME TREATMENT ON THE AROMA PROFILE OF MALVASIJA DUBROVAČKA WINE

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Grapes of different *Vitis vinifera* varieties contain hundreds of volatile aromatic compounds located mainly in their skin. Therefore, extracting these aroma compounds and their precursors is one of the main objectives during wine production. Monoterpenes, benzene derivatives, C13-norisoprenoids, and aliphatic alcohols are aromatic compounds that can be released due to β -glucosidase, rhamnosidase, pectinase, and glycosyl hydrolase activity. Thus, understanding the role of enzymes in winemaking technology contributes to developing strategies to optimize the production process, improving the wine's composition and sensory properties. To our knowledge, there are no data on the influence of commercial enzyme preparations on the aroma profile of Malvasija dubrovačka wine, so the main objective of this research was to determine the changes in wine aroma profile after the addition of liquid pectolytic enzyme with high β -glucosidase activity. The results showed that enzymatic treatment increased the concentration of some monoterpenes such as linalool, β -myrcene and D-limonene as well as some ethyl esters such as ethyl hexanoate which resulted in more intensive aroma and better sensory evaluated wines.

VOLATILE AROMA PROFILE OF MALVASIJA DUBROVAČKA SPARKLING WINES

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Malvasia is a common name for many different and related *Vitis vinifera* L. wine varieties, which have been cultivated since ancient times in the vineyards of the Mediterranean. Malvasija dubrovačka also from the Malvasia group is a significant and extremely valued grape variety, it is grown exclusively in the Dubrovnik area. The oenological potential of this variety is very high - it produces very strong and full-bodied wines, with expressive varietal aromas, and maintains a relatively high level of total acidity, so its wines are harmonious and enjoyable. Due to its acid potential, and the possibility of producing high-quality wines, the variety is worth researching in the production of sparkling wines. This study presents the results of the volatile compounds profile and organic acid composition of Malvasija dubrovačka sparkling wines from three different vintages, produced by the classic method. In total, 104 volatile compounds were identified by SPME-Arrow-GC/MS method and classified into 10 chemical groups (aldehydes, alcohols, volatile phenols, terpenes, C13-norisoprenoids, lactones, esters, fatty acids, sulfur compounds, other compounds). Higher alcohols such as phenyl ethyl and isoamyl alcohol, as well as phenyl ethyl alcohol, and esters such as ethyl hydrogen succinate, diethyl succinate, and diethyl malate, had the largest proportion in the volatilome of Malvasija dubrovačka sparkling wines through all three different vintages.

NON-SACCHAROMYCES YEASTS AS A BIOTOOL FOR PRODUCING MALVAZIJA ISTARSKA WINES WITH MORE COMPLEX AND DIVERSE AROMA VOLATILOMES

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Although the use of commercial *Saccharomyces cerevisiae* yeasts in winemaking ensures microbial control, complete fermentation and high quality, such a standard approach somewhat reduces the possibility of obtaining more distinct and diverse wines. One of the current trends in oenology for mitigating such 'limitations' is the use of non-*Saccharomyces* yeasts as fermentation starters due to their potential for introducing various appealing characteristics to wine that may improve its quality and complexity. To investigate the possibility to diversify the aroma volatilome of Malvazija istarska wine, its grape juice was inoculated with five non-*Saccharomyces* yeasts (*Torulaspora delbrueckii*, *Metschnikowia pulcherrima*, *Pichia kluyveri*, *Lachancea thermotolerans*, *Schizosaccharomyces pombe*) and a *Saccharomyces cerevisiae*/*Saccharomyces paradoxus* hybrid, while *S. cerevisiae* was inoculated at 2 % (v/v) of ethanol to finish fermentations and as a monoculture control. Volatilome analysis of finished wines was performed by untargeted metabolomics using two-dimensional gas chromatography with time-of-flight mass spectrometry (GC×GC-TOF-MS) complemented by standard GC-MS. More than 400 volatile aromas were identified and (semi)quantified and diverse volatilome profiles were obtained across the treatments. These effects were confirmed by sensory analysis with the majority of wines obtained by non-*Saccharomyces* starters described by greater complexity and higher quality than *S. cerevisiae* control. As for other effects, *S. pombe* proved its deacidification ability, while *L. thermotolerans* produced most lactic acid. The lowest total PR proteins level was found in *M. pulcherrima* inoculated wine. The obtained results showed that non-*Saccharomyces* yeasts are a viable bio tool to produce Malvazija istarska wines with diverse characteristics, including more complex aroma volatilomes.

RECENT FINDINGS ON MALVAZIJA ISTARSKA WINE PROTEIN (IN)STABILITY, FACTORS THAT AFFECT IT AND APPROACHES TO MITIGATE NEGATIVE EFFECTS OF BENTONITE CLARIFICATION

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Developed protein haze in bottled white wine is considered a serious quality defect and such wines are not marketable. It originates mainly from denaturation and aggregation of the so-called pathogenesis-related (PR) grape proteins, consisting mainly of thaumatin-like proteins (TLPs) and chitinases. The usual practice to prevent protein haze in wine is their removal before bottling by adsorption onto bentonite. Although effective, the use of bentonite has several drawbacks, such as loss of wine volume and stripping of aromas, so it is of interest for winemakers to limit its use or identify bentonite types with reduced negative impacts, which is especially important in the case of wines of cultivars with high protein content and bentonite requirements, such as Malvazija istarska. A two year study showed that Malvazija istarska wines are by far more abundant in PR proteins than particular other white wines and that PR protein content increases towards later harvest dates. Vinification treatments such as short skin contact and oxygenation were shown to increase, while the use of pectolytic enzymes and especially long skin contact were shown to reduce the content of PR proteins in Malvazija wine. Significant improvements in clarification efficacy, wine quality and oxidative stability were achieved by bentonite application during fermentation in relation to standard clarification before bottling. Bentonites with complementary TLPs/chitinases affinities were identified by 2D proteomic analysis, while relationships of particular physical properties of bentonites with their clarification efficiency and aroma stripping side-effects were observed, which could be exploited for more efficient clarification.

THE PAST, PRESENT AND FUTURE OF MALVASIA CULTIVATION IN SPAIN

Gregorio Muñoz Organero

The first Malvasia vine variety was introduced to the Iberian Peninsula thousands of years ago. Nowadays, the first Malvasia (Malvasia Aromatica, synonym of Malvasia Dubrovacka) and one of its offspring (Malvasia Volcanica) occupy a not very large cultivation area, mainly in Catalonia and the Canary Islands. A rose-coloured mutation is also cultivated. They have always been varieties linked to quality wines, although not very productive. This fact led to the emergence of other varieties named as Malvasía, with comparable aromatic attributes, but in many cases are considered erroneous names. In recent years, another Malvasía variety has been recovered in prospections of old vineyards. The early ripening character of the grapes will not be favorable in the future in view of the temperature increases due to climate change.



MALVASIA DE SITGES AND OTHER MALVASIAS IN CATALONIA

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Malvasia grapes and wines have a long tradition in Catalonia, NE of Spain, with documents from the middle ages. The surface planted to malvasia was reduced for some period but in the last 20 years it has been planted again and several wineries are producing many new wines with malvasia. We studied vineyards and wines made of malvasia for chemical and sensory analysis, the collective efforts to support this variety and the increase of planted area.

"COMMUNICATION STRATEGIES FOR MALVASIA DE SITGES WINES: UNVEILING CHALLENGES AND TOURISM IMPACT"

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Malvasia encompasses a group of grape varieties from the same family, and its main area of cultivation is the Mediterranean region, including the Canary Islands and Madeira. The term Malvasia is used to refer to a style of wine that experienced its peak during the 15th-18th centuries. This research analyzes the ways in which Malvasia de Sitges wines are communicated. Through a systematic analysis of communication, we can interpret the level of engagement among the parties involved. This will enable us to examine the communication strategy employed, and their impact on the flow of visitors to destinations where Malvasia is an important element for their economy and local history. This study has practical implications and is of interest to wineries and tourist destinations. The results show a lack of coherence in the communication strategies. This can be attributed to the fact that Malvasia de Sitges experienced a "rebirth" in the last two decades as a product (in risk of extinction until the year 2000), and this fact means that the level of consumer knowledge is in its early stages. Therefore, I will recommend that this strategy be readjusted to establish a correlation between the year-on-year growth in planting and production of Malvasia, and the definition of Key Performance Indicators. This will help to consolidate both the wine and the tourist destination associated with the need to purchase thereby minimizing weaknesses in front of "unfair competitors" (both internal and external) and addressing the future challenges of tourism with a focus on Malvasia.

BUILDING THE CONCEPT AND THE NETWORK OF THE MALVASIA MYTH

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Malvasia wine is the most famous wine in history. Malvasia has been the "wine of myth", for its amber color and for its unmistakable aroma, for its centuries-old history and for its vast diffusion along the shores of the Mediterranean and beyond; for being the first "designation of origin" wine and for its role as a social status symbol; for the consideration of famous people and for the extraordinary influences on gastronomy. Many historical facts speak of its origin, its history and its spread in Europe, although interpretations differ by region and country, keeping alive the myth, even today, for that aura of mystery that surrounds it. The Transnational Cooperation LEADER/CLLD Project entitled "Malvasia Myth" runs since 2019 by Local Action Groups LAG Parnonas (Monemvasia, Greece), GAL del Ducato (Parma, Italy) and LAG Central Istria (Croatia), aiming at the collaboration between Malvasia producing regions on promoting their particular characteristics (history, tradition, nature, gastronomy, culture) and especially their "Malvasia identity". Building an overall narrative, a "myth" about the history and culture of Malvasia wine, in a modern way and perspective, creates a new international cultural brand "Malvasia Myth". Its main tool is the "Malvasia Myth Network", a constitution already setup (MOU signed on June 8, 2023, Malvasia Festival Monemvasia, Greece). The new, modern journey of Malvasia wine has another ambitious target, the inscription of the "Routes of the Malvasia Wine and Culture" into the Cultural Routes of the Council of Europe and the Intangible Cultural Heritage List of UNESCO.

ARHIVSKO GRADIVO DUBROVAČKE REPUBLIKE – VRELO ZA BRENDIRANJE DUBROVAČKE MALVASIJE

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U radu ću ukazati na značaj arhivskog gradiva, prije svega iz vremena Dubrovačke Republike, kao vrela za brendiranje autohtonog proizvoda – vina Malvasije dubrovačke bijele. Na inicijativu dipl. ing. agr. Nika Karamana i Agronomskoga fakulteta u Zagrebu tj. prof. dr. sc. Edia Maletića 2002. godine pokrenut je znanstveno-stručni projekt; „Revitalizacija sorte vinove loze malvasija dubrovačka bijela (*Vitis vinifera* L.)“. Poglavarstvu Dubrovačko-neretvaske županije predložen je petogodišnji projekt revitalizacije dubrovačke malvasije koji je ona prihvatila i financijski podržala. Postavljeni su sljedeći ciljevi projekta: detaljna inventarizacija uzgojnog područja malvasije dubrovačke bijele (Konavosko vinogorje), genetička identifikacija metodom molekularnih markera, umnožavanje ampelografski i genetički pregledanog i analiziranog materijala, utvrđivanje najpovoljnijih tehnoloških rješenja u vinogradarskoj proizvodnji, utvrđivanje optimalnog načina vinifikacije sorte i konačno arhivističko istraživanje i znanstvena valorizacija povijesti vina – dubrovačke Malvasije – s ciljem njegovoga brendiranja i pozicioniranja na tržištu. Na moju zamolbu, arhivističkom istraživanju odazvale su se djelatnice Zavoda za povijesne znanosti u Dubrovniku Hrvatske akademije znanosti i umjetnosti dr. sc. Vesna Miović i dr. sc. nella Lonza, koje su radeći na svojim istraživačkim projektima signirale dokumente koji svjedoče o ulozi vina dubrovačke Malvasije u javnom životu Republike. To je rezultiralo objavljivanjem moje knjige „Malvasija – glasovito vino još iz doba Dubrovačke Republike“. Ona je postala temelj za brendiranje dubrovačke Malvasije svim vinogradarima i vinarima u Konavlima koji su se upustili u njezin uzgoj i proizvodnju vina.

MEĐUNARODNO NATJECANJE VINA „SVIJET MALVAZIJA“

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Međunarodno natjecanje „Svijet Malvazija“ je ocjenjivanje vina koje se od 2009. godine održava u organizaciji Vinistre – istoimene udruge vinogradara i vinara Istre. Ova eno manifestacija nastala je kao rezultat želje da se prvenstveno Malvazija istarska predstavi širem svjetskom tržištu, a što je u skladu sa svjetskim trendovima proizvodnje i potrošnje vina proizvedenih od autohtonih vinskih sorti koje imaju snažnu vezu s područjem uzgoja. Prvo ocjenjivanje „Svijet Malvazija“ održano je 2009. godine, a sudjelovalo je 8 država sa 214 uzoraka vina. Narednih godina dolazi do stagnacije (ili laganog opadanja) kako broja zemalja tako i broja uzoraka, a do značajnijeg povećanja dolazi 2017. kad je prijavljeno 245 uzoraka. Slijede godine rasta (osim 2020 kada ocjenjivanje zbog pandemije nije ni održano te 2021. sa nešto manjim brojem uzoraka) 2018., 2019. i 2022. sa oko 270 uzoraka vina dok je 2023. godine prijavljeno dosad najviše uzoraka, čak 317. Gledano po broju država, kao što je navedeno prvo natjecanje prijavili su proizvođači iz 8 država da bi 2022. godine sudjelovali proizvođači iz 10 zemalja. Što se sorata tiče natjecanje je startalo sa 5 sorata da bi 2023. godine bilo prijavljeno 14 sorata Malvazija. Sorta Malvazija istarska je bila najzastupljenija na ocjenjivanju 2011. godine (94 %), a najmanje 2023. godine (80 %). Odnos pjenušavih, mirnih i desertnih vina kretao se od 1-7 %, 87-94 % i 3-6 %, s time da je najviše pjenušavih malvazija prijavljeno 2016., mirnih 2012. i desertnih 2017. godine.

Ključne riječi: Međunarodno natjecanje, Svijet Malvazija, vino, sorta, Malvazija istarska

SENSORY TYPICITY DESCRIPTORS OF PDO MALVASIJA DUBROVAČKA WINES WITH TT „VRHUNSKO VINO KZP“

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Malvasija dubrovačka is a grape variety of distinctive importance in promoting wine heritage and culture in the Dubrovnik area. However, there are only a few studies that deal with the sensory typicality of this variety. The aim of this work was to describe the typicality of PDO Malvasija dubrovačka wines encompassing the Traditional Term „Vrhunsko vino KZP“. Two vintages of wines from the market were evaluated in the same period for two years. Specific descriptors of Malvasija dubrovačka variety wines were extracted based on the results of previous research. A sensory description sheet was prepared combining the OIV descriptors and specific sensory attributes of the variety. Sensory evaluation was done in a laboratory accredited by HRN EN ISO/IEC 17025, by a panel of assessors who are the enologists and the experts in wine sensory testing. The assessors were asked to select the descriptors they recognized and to score their intensity using a scale of 1-5. All analyses were done in duplicate. The selected sensory descriptors, based on multivariate statistical analysis, can be used to describe the typicality of Malvasija dubrovačka wines, especially when presenting the „Vrhunsko vino KZP“. This method could be useful in future activities in preparing the new PDO specification and sensory evaluation of wines.

