



REPUBLIKA E SHQIPERISE
KESHILLI I QARKUT KORÇE



INTERREG IPA CBC GREECE ALBANIA

**RECORDING AND
INVESTIGATION OF GENETIC
VARIABILITY (KORCE'S
INDIGENOUS GRAPE VARIETIES)**

WINCOME PROJECT

TABLE OF CONTENTS

1. INTRODUCTION

1.1 HISTORY OF VINEYARDS AND WINE PRODUCTION IN ALBANIA

1.2 AGRICULTURAL LAND AND VINEYARDS AREA IN ALBANIA

1.3 THE MOST USED GRAPEVINE CULTIVARS AND WINE PRODUCTION

2. THE ALBANIAN NATIONAL GRAPEVINE COLLECTION

3. STATUS OF VITIS GERMPLASM IN ALBANIA

4. VITICULTURE IN GENERAL AND REGIONAL ENOLOGY IN PARTICULAR

4.1 THE IMPORTANCE OF VITICULTURE

5. CASE STUDY KORCA REGION

5.1 VITICULTURE AND ENOLOGY IN KORCA REGION

5.2 AUTOCHTHONOUS GRAPE VARIETIES IN KORCA REGION

PREPARED BY
PROF. ASS. DR. BESNIK SKENDERASI

www.korcaregion.com

1. INTRODUCTION

1.1 HISTORY OF VINEYARDS AND WINE PRODUCTION IN ALBANIA.

The territories of present - day Albania have been inhabited as early back as 100.000 years ago. It was at the turn of the third millennium BC that an Indo- European population settled there. As the result of the mixture, a population incorporating the unique cultural and linguistic characteristics of the whole Balkan Peninsula was created. Based on this ancient population, the Illyrian people developed through the second millennium and the first century BC. After its fall in the year 30 BC., Illyria came under the control of Roman Empire. With the division of the Roman Empire (395 AD), Illyria became a part of the Byzantine Empire [2]. The country has suffered continuous invasions over the last 1000 years and by the end of the 14th century Albania was occupied by the Ottoman Empire. The subsequent efforts and insurrections for independence eventually brought about the proclamation of the independence of Albania in 1912. After 1912 till the end of the First World War, the country was attacked by neighboring countries (Susaj, 2008). Albania is now a parliamentary republic with a population of 3.5 million inhabitants, and a total land area of 28 748 km² (a little smaller than Belgium). Its climate is typically Mediterranean: cool and wet in winter and hot and dry in summer (AHMI, 1987). It is a mountainous country, with only 24% (697000 ha) of its land suitable for agriculture, but over 50% of its population lives off the land, on farms with an average size of 1.14 hectares [4]. Albania claims one of Europe's longest histories of viticulture. French geographer Henri Enjalbert (1910-1983), an eminent specialist in wine geology, has considered that Albania, the Ionian islands of Greece, and southern Dalmatia (part of Illyria in the Ancient period) may have been the last European refuge of the vine after the Ice Age. Certainly there are written accounts of viticulture in Illyria, as it was known in classical times, as early as 8th century BC. Early Latin writers also cited Illyria as a source of a high-yield vine that was introduced to Italy. Antiquity geographer, Strabon (63 BC - 20 AD) has written about Albania: "...inhabitants of Adriatic eastern coast export wine in Rome that keep it in woody barrels... [8]. Johan Wilkes (2005), has written that: "... for Hellenics world, Illyrians looks like winebibbers, by the fact that Adrians (an Illyrian tribe) organize competitions who can drink more and woman, who participate also into these competitions, bring their drunk men at home, and their kings, Agron and Gent, were great winebibbers too...". Wilkes continues that "...Hellenics learned by Taulants an excellent recipe for "hydromel", prepared by fermentation of honey, wine and water, a famous drink used by Illyrians of Pannonia during Atila's period..." During archaeological excavations in the period 2005-2008, in the Bylis ancient city, built at 400 BC (remains of Bylis are in Hekal, Mallakastër), were discovered some ceramic tanks used for grape crushing and wine decantation, in a size of 165 cm x 145 cm, divided by walls of 35 cm thick. There were found 16 amphorae, isolated by the inner side with bee wax and pine resin. In Apollonia, another Illyrian ancient city, near to Fier, there were found and preserved 1500 amphorae in four rows, that form a wall of 21 m in length, 6 m in width, and 2 m high. Volume of each amphorae was 22-26 liters. In the same time, in Saranda's gulf, 2 km far from seaside, there were found 6 amphorae. All these amphorae date up to 300 years BC. Roman and Byzantine Empires stimulated grapevine cultivation in Illyria (Arbëria or Shqipëria). Scriptures and chronicles of 10-14 centuries testify for exports of wine, olive oil, silk, and salty dried fish from

Albania to Italy. In the Ottoman Register of 1431 [10] was written that from 1123 villages, starting from Mati's River to Konispol,

158 villages or 14% cultivated grapevine and regularly payed the wine tax. Turkish chronicler (historian) Elvija Çelepia, in 1660-1670, has written: "Elbasan has 2000 ha with vineyards, Shkodra 2300 ha, and Desartia (district of Berat and Skrapar nowadays) 7000 ha. Between then establishment of the first Albanian Government in 1912 and 1944, viticulture increased rapidly, but phyloxera devastated a huge area. The first cases of phyloxera in Albania were discovered in 1933, and because of backwardness and lack of scientific capacities there were devastated more than half of vineyard area, so, by the end of Second World War, there were only 2737 ha of vineyards (Sotiri et al., 1973). Reestablishment of Albanian viticulture begun in 1945, after establishment of communist rule, when started the establishment of new vineyards with grafted seedlings imported from Italy, France, Hungary, and Bulgaria. In 1957, started the production of grafted seedling by 9 antiphyloxeric state nurseries and there were established 24 wineries in all regions, producing dry wines and raki (a grape distillate) for local consumption, and sweet wines, grape juice, and brandy for export. In 1965, there were 10000 ha of vineyards. During the period 1970-1990, total vineyard area increased to 20000 ha, of which 14000 ha were for wine production, and there were consolidated and developed an authentic wine production industry.

1.2 AGRICULTURAL LAND AND VINEYARDS AREA IN ALBANIA

In 1990, there were 26 antiphyloxeric state nurseries and were established 137 wineries, with different wine production capacities, all over the country, producing dry wines (red and white) and raki for local consumption, and sweet wines, grape juice, and brandy for export [9]. During the 1990s (1990-1994) there was a programmer of land privatization and attempts to establish free market economy, but, because of deep political changes, the result, in the short term at least, has been a dramatic reduction in total vineyard area, from 20000 ha in 1990 to 4300 ha in 1994, and to 7994 ha in 2005 [5], and, in 2016, total vineyard was increased to 10533 ha or 1.51% of the total agricultural land, from which 10011 ha in production, and the number of pergolas in total

Table 1. Total vineyard area and number of pergolas through years (1945-2016)
was 6 197 000 vines, from which 5 775 000 vines in production [3] (Table 1 and 2).

Nº	Description	1945	1990	1994	2000	2005	2008	2009	2010	2016
1	Vineyards (ha)	2737	20000	4300	5824	7994	9755	9806	9712	10533
2	Pergolas (000 vines)	6476	2965	3564	4638	5364	5483	5503	5501	6197

Nº	Description	2016	%
1	Total land	2 875 000	100
2	Agricultural land	695520	24.2
3	Forestry, pastures & others	2 179 480	75.8
4	Viticulture	10533	1.51

In 2016, there was produced 205286 tons grape, by which 124436.7 tons (60.6%) were produced from vineyards and 80850 tons (39.4%) were produced from pergolas [3] (Table 3).

Table 3. Grape production (tons) and yield from pergolas and from vineyards in 2016

Nº	Source of grape production	Total	In production	Yield (kg/plant or t/ha)	Production (tons)	%
1	Pergolas (000 vines)	6 197	5 775	14.0	80850.0	39.4
2	Vineyards (ha)	10533	10011	12.43	124436.7	60.6
	Total				205286.7	100

About 141647.8 tons or 69% was used for wine production (INSTAT, 2017) (Table 4).

Nº	Product destination	Production (000 tons)	% of total production
1	Table grapes or raisins	36769	17.9
2	Alcoholic drinks production (raki, etc)	26869.9	13.1
3	Wine production, of which:	141647.8	69.0
4	Red Wine	99153.5	70
5	White Wine	42494.3	30

There are 426 wineries with different wine production capacities, producing dry wines (red, rose' and white), sweet wine and raki for local consumption, and dry wines, sweet wines, grape juice, brandy, and raki for export [7]. These wineries are private and most of them were constructed under the supervision of Italian and Albanian specialists. Wineries of West-northern part of Albania, including districts of Mirdita, Lezha, Shkodra and Malësia e Madhe, have found the Northern Wineries Association, chairmen of which is Mr. Jak Pacani, owner of the "ERSI" vineyard and winery, in Mjeda, Shkodër. Ten wineries, such as "Gjergj Kastrioti" in Durrës, "Miqësia" (Friendship) in Koplík, "ERSI" in Shkodra, "Aquila Liquori" in Tirana, "ÇOBO" in Berat, "ARBËRI" in Mirdita, "SARA" in Fier, "NURELLARI" in Berat, "RILINDJA" in Korça, and "ISAK" in Saranda, have the highest processing and preservation capacities, over 20000 hl/year [11]. In Albania, in 2016, were produced 118744 hl wine, by which 97980 hl wines by small family wineries and 20764 hl by large wineries. Small amount of wine was exported to USA and Kosovo (256 hl), while the import of wine was 27975 hl [3], and wine consumption was 146 463 hl or 4.18 liters/capita (Table 5).

Table 5. Wine production, export-import and wine consumption in Albania

N ^o	Product destination	Production (000 tons)	% of total production
1	Table grapes or raisins	36769	17.9
2	Alcoholic drinks production (<i>raki</i> , etc)	26869.9	13.1
3	Wine production, of which:	141647.8	69.0
4	<i>Red Wine</i>	99153.5	70
5	<i>White Wine</i>	42494.3	30

1.3 THE MOST USED GRAPEVINE CULTIVARS AND WINE PRODUCTION

Main text paragraph. In 2016, from the total vineyard area, 10533 ha, 1685 ha or 16% were planted with table grapevine cultivars, 2107 ha or 20% were planted with white wine grapevine cultivars, and 6741 ha or 64% were planted with red wine grapevine cultivars (Table 6).

Table 6. Variety structure (according to product destination) - 2016

N ^o	Description	Area (ha)	%
1	Total vineyard area	10533	100
1.1	Area planted with red wine grape cultivars	6741	64
1.2	Area planted with white wine grape cultivars	2107	20
1.3	Area planted with table grape cultivars	1685	16

The most used cultivars for fresh grape production, are: “Italia”, “Matilda”, “Victoria”, “Cardinal”, “Alfons Lavale”, “Black Magic”, “Muskat Hamburg”, “Michele Palieri”, etc, and some indigenous ecotypes called “Tajgë e Kuqe” (Red Tajga), “Tajgë e Bardhë” (White Tajga), and “Dimërak” (Winter grape) [9]. The most used cultivars for white wine production are introduced grapevine cultivars, such as “Chardonay”, “Riesling”, “Muscat”, “Trebiano”, “Muller Thurgau”, etc, and some indigenous ecotypes called “Shesh i Bardhë” (White Shesh), “Pulës”, “Debinë e Bardhë” (White Debine), “Serin i Bardhë” (White Serin), “Cëruja”, and some local ecotypes called “Brasten i Bardhë” (White Brasten), “Ujcek”, and “Kallmet i Bardhë” (White Kallmet) [9].

The most used cultivars for red wine production are introduced grapevine cultivars such as “Merlot”, “Cabernet”, “Primitivo”, “Tempranillo”, “Barbera”, “Syrah”, “Montepulciano”, “Sangiovese”, “Mavrudi”, etc,

and some indigenous cultivars or ecotypes called “Shesh i Zi” (Black Shesh), “Kallmet”, “Vlosh”, “Debina e Zezë” (Black Debina), “Vranac”, “Serin i Zi” (Black Serin), and some local ecotypes called “Zarçin”, “Manakuq”, “Skënderbegas”, and “Valteri” [9]. During the last 10 years, there has been a tendency and a raised demand for wines produced by indigenous and local grapevine cultivars and ecotypes. In 2016, the planted area with Albanian cultivars and ecotypes was ≈ 3150 ha or $\approx 30\%$ of the total vineyard area, and the most used cultivars were “Shesh i Zi”, “Shesh i Bardhë”, “Kallmet”, “Vlosh”, “Debinë e Zezë”, “Serin i Zi”, “Pulës”, “Cëruja”, etc



2.THE ALBANIAN NATIONAL GRAPEVINE COLLECTION

Native cultivars	Type	Foreign cultivars	Type
Table grape		Table grape	
Durrsaku i bardhë	white	Afuzali	White
Qelibar i hershëm	white	Regina dei vigneti	White
I bardhi cipë fortë	white	Italia	White
Dimjat	white	Shasla skuta	White
I bardhë kokërkëndezi	white	Perla Ksaba	white
Pulëz	white	Stambollesh	white
Muzhaku	white	Moskat D'ada	black
Gomaresh	white	Alfons Lavale	black
Celepzum	white	Sidheritis	red
Meresnik	white	Kardinal	pink
Serin e bardhë	white	Tarif rozë	pink
Jediveren	red	Shaslla violet	pink
I rrumbullakët i vonët	red	Moskat rozë	pink
Dimerak	pink	Wine grape	
Dimerakes	red	Fitore	black
Korrithi	red	Kaberne savinjon	black
Tajgë e Liut	pink	Malvasia	white
Wine grape		Aligote	white
Rrush Zhepove	pink	Barbera	black
Rrush i Hodos	pink	Raisins	
Debin Leskoviku	white	Sulltanina e Bardhë	white
Shesh i bardhë	white		
Debin Përmeti	white		
I bardhi cipëhollë	white		
Kotekë e bardhë	white		
Sinanbel	white		
Rrush Bureli	white		
Sinanbel no.2	white		
Tajgë e zezë	black		
Rozë	red		
Rrush kishe no.2	pink		
Verë breshkëza	pink		
Tajgë rozë	pink		
Shesh i zi	black		
Vlosh	black		
Rrush vere	black		
Krakië	black		
Debinë e zezë	black		
Kosinjot	black		
Kolek e zezë	black		
Rrush vere me supe	black		
Kozarka	black		

In recent years, scientific institutes and the Albanian gene bank collaborated in the genetic enrichment of this collection. Another collection was established in Sarandë, containing exclusively native cultivars. Despite these efforts, much work is still needed for the collection and maintenance of Vitis genetic resources in Albania. Attempts must be made to reduce the impact of negative factors such as: -

- urban migration leading to reduced use of native cultivars, -
- unfair competition with planting material of other uncertified cultivars entering the country at lower prices, -
- lack of awareness at farmers' level regarding the benefits of cultivating native cultivars, -
- lack of adequate funds for the maintenance of existing collections or the establishment of new ones, -
- difficulties in finding incentives for the farmers to maintain the indigenous cultivars, etc

Efforts for the future

More attention to such crops in preservation and utilization programmes is necessary. Conservation of native varieties should be immediate, and it needs to be followed and sustained by on-farm conservation and activities in related areas:

- Maintenance of the existing collections,
- Intensification of collecting missions for relevant native varieties of grapevine and for *Vitis sylvestris*,
- Establishment of new grapevine collections in the appropriate areas of cultivation,
- Creation of a network among institutions holding Vitis collections,
- Investments to solve the constraints due to lack of funds,

3.STATUS OF VITIS GERMPLASM IN ALBANIA

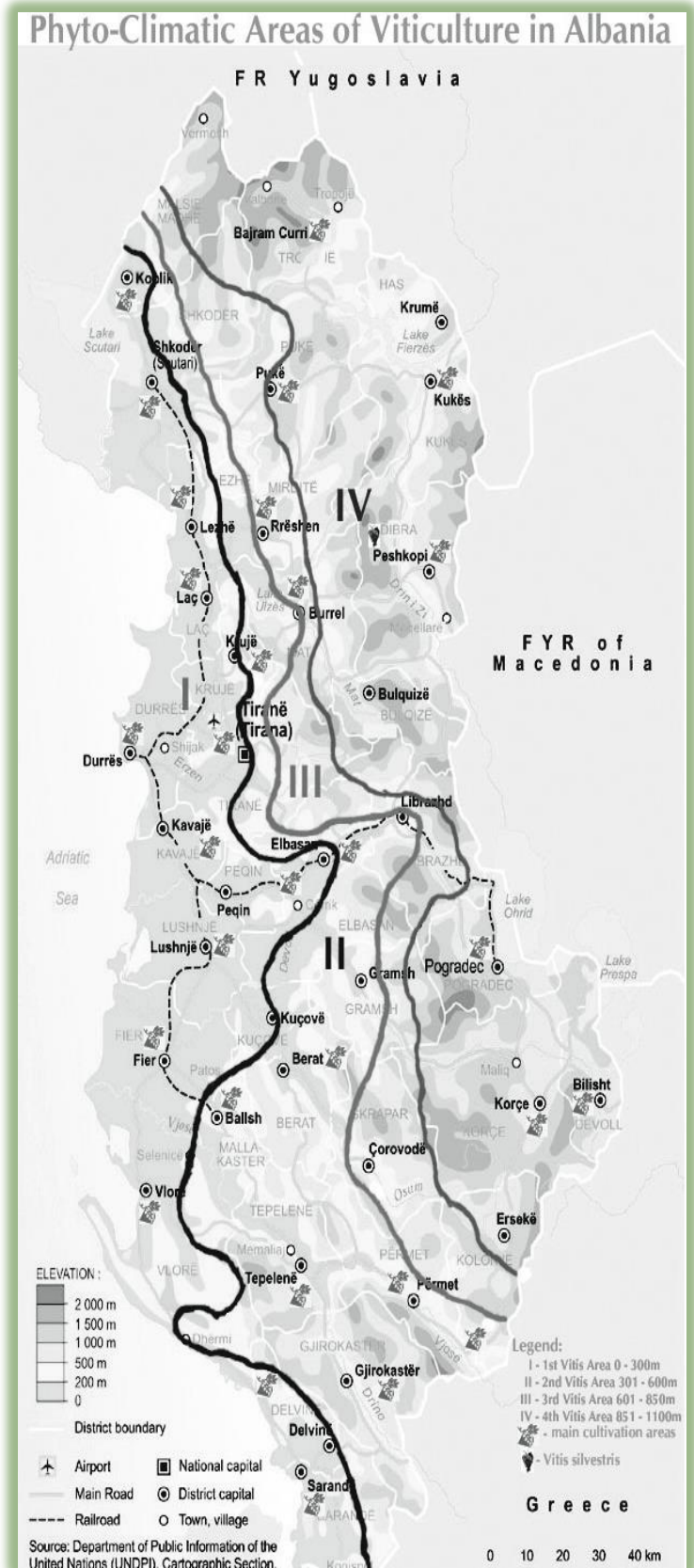
Albania, a typical Mediterranean country, enjoys soil and climatic conditions that are ideal for the development of viticulture. Many cultivars have developed here, adapting to the agro ecological conditions through continuous natural and human selection. They are of high value in terms of yields and quality and therefore compete with many introduced cultivars (Sotiri et al. 1996). This rich diversity of grapevine cultivars and biotypes is spread out widely across the country (up to 1000 m altitude) and many of the cultivars are very well adapted to local conditions (Fig. 1). From this large number of cultivars, those with inferior qualities have disappeared (or are gradually disappearing) because of the severe genetic erosion during the transitional period (1990–2000), while others, with superior qualities, are increasing owing to their high economic value to many farmers.

Within the wide range of native grapevine cultivars available in Albania, geographically distributed in all the wine-producing areas of the country, we will mention only those which are the most frequent in terms of their distribution and which received special attention as essential genetic resources because they are very valuable for hybridization and breeding programmes. The predominant native grape cultivars in Albania are ‘Shesh i Bardhë’ and ‘Shesh i Zi’, which constitute 60% of the plantings throughout the country, except in the cold eastern and northeastern areas, where their cultivation is limited because of their late maturation and consequently low sugar content. Since the 1990s the preference of the Albanian farmer has been for the above-mentioned cultivars (at least in areas I and II, Fig. 1) originating in the area of Shesh in Tirana.

- ‘Shesh’ cultivars are very well adapted to Albanian soil and climate conditions, giving high annual yields. They are the most abundant cultivars.
- They are very flexible to all types of cultivation, due to the production potential of all the shoots.
- Until recent years, ‘Sheshes’ have been used for both table and winemaking owing to their fine gustatory qualities, which result from their very well balanced acid/sugar ratios (Sotiri et al. 1973).
- They are relatively more resistant to fungal diseases than sensitive cultivars such as ‘Italia’, ‘Afuzali’, etc

However, in spite of the undeniable preferences of our farmers and the advantages just listed, we should stress that, regarding competitiveness with other well-known wine grapes such as ‘Merlot’, ‘Cabernet-Sauvignon’, ‘Riesling’ and ‘Pinot Nero’, which are appreciated and required all over the world, the wine produced by the ‘Shesh’ cultivars is inferior with respect to the quality of colour and bouquet (especially in cases of high yields or when cultivated in deep and cold soils). This is reflected in the trading difficulties faced by the wines produced from these grapes. Since almost the majority of areas are cultivated with the ‘Shesh’ cultivars, it is now becoming necessary to plant other cultivars, in order to produce better-quality wines. In the near future, when we can foresee that competition in the wine market will be harder, the ‘Shesh’ cultivars should be sold mainly for domestic use and in limited quantities for trading purposes, either for fresh consumption or in winemaking.

Cultivar ‘Kallmet’ is grown mainly in northern Albania and in a few locations of central Albania. It is a remarkable cultivar, especially for winemaking. Wines produced from this cultivar have been awarded medals in various competitions. Other cultivars such as ‘Serin i Zi’, ‘Serin i Bardhë’ and ‘Debinat’, which are early-maturing, are found mainly in cold areas such as Korça, Ersekë, Përmet, Skrapar, Leksovik, etc. They are very well adapted to those particular ecosystems, especially when grown on pergolas and are being



considered for the development of organic viticulture.

The same can be said of cultivars 'Kotekë e Bardhë', 'Kotekë e Zezë', 'Rrush Dhëpre', etc. Because of the preference for foreign cultivars, these Albanian cultivars are becoming less appreciated and the percentage of native cultivars within the general assortment of varieties is decreasing. In a time of severe genetic erosion, it is imperative to explore, collect, study and grow all the viticultural germplasm at the Fruit Science Institute of Vlorë, and to exploit all the genetic material for hybridization work. We should also mention the potential use of *Vitis sylvestris*, which enjoys an old tradition of cultivation in Albania and has also been reported to be still in existence by the latest explorations by specialists.



4.VITICULTURE IN GENERAL AND REGIONAL ENOLOGY IN PARTICULAR

4.1 THE IMPORTANCE OF VITICULTURE

Viticulture is the science that studies and elaborates the laws of growth, development and cultivation of the vine with the aim of high, sustainable, quality products and at the lowest possible cost. Today, in viticulture, efforts are being made to find efficient ways to increase production efficiency through:

- Improvements in cultivation technologies,
- Wider preservation and spread of domestic and foreign cultivars, with high and quality production capacity,
- Implementation of integrated fight against diseases and pests,
- Increasing the degree of mechanization of the main mechanization work processes in accordance with the current and prospective stage of its development.

WHAT IS REQUIRED TODAY IN THE FIELD OF VITICULTURE:

1. To generalize the results of scientific studies in order to serve the vine as simply and effectively as possible.
2. To know and study the experience of the country and abroad in viticulture.
3. Cultivation technologies to become as simple, more practical, less costly and applicable in our concrete conditions and on this basis to design standard technologies for a group of cultivars or special cultivars.
4. To give up empirical methods in many fields of this science which needs to be enriched by our achievements from centuries of experience and tradition, from genuine scientific research especially in terms of ecology, physiology, genetics, selection, etc.
5. To increase the production of grapes and its by-products, in order to improve the market.

The importance of viticulture is related to the great value of grapes for human consumption. It is used in three main directions: Fresh / Processed / Dry. The following grapes are collected in grapes:

- i. 15-16% sugar up to 30-32% mainly in glucose form;
- ii. Very valuable mineral acids and salts.

- iii. We mention Malic acid, Tartaric acid 0.5-1.4%, mineral salts of P, Fe, K, Ca, Al, Cu, Zn, etc. in the amount of 0.3-0.5%;
- iv. Albinoid substance 0.15-0.9%, pectin 0.3-1%, enzymes, vitamins A (carotene), B1 (anerrin), B2 (riboflavin), C (ascorbic acid), B6 (adermine) and P (citrine);
- v. 65-85% water and it is recommended to use with 300-500 gr / day;

Grapes have a high curing value. Its consumption in certain norms relaxes the nervous system, cures anemia, diseases of the stomach and nerves. Grape juice has very good bactericidal properties. Grapes also have a high chlorophyll value. 1 kg of fresh grapes gives 700-800 calories, 1 kg of raisins gives 2900-3000 calories, 1 liter of cider gives 900 calories equal to 450 gr of meat or 1 liter of milk, or 10 eggs. So, with 1 kg of grapes, 25-30% of the calories that an adult should get per day, 8-10% of proteins and 50-60% of sugars are supplemented.

In grape seeds after fermentation give 10-12% oil which is evaluated as anti-sclerotic, used in cosmetics, in the production of linoleum, in the rubber industry, etc. Grape seeds are rich in protein, mineral salts, carbohydrates, fats, cellulose, etc. and are used as livestock feed by preparing concentrated feed. 1 kg of dry berries has 0.7-0.8 food units and 90 gr of soluble protein. Waste during summer operations is used as animal feed (8-10 kv / ha green mass).

It gives impetus to the development of the processing industry for the production of various beverages, jams, compotes, etc. The vine having a highly developed root system grows and produces satisfactorily in steep hilly areas with shallow soles thus being the most rentable crop compared to others. Enables export development thus becoming a source of foreign exchange earnings for producers. In conclusion, we can say that Viticulture is a broad field with comprehensive values which justifies itself quite well, therefore it is required that the interest increase even more as investments, no matter how small, never go to waste.

5.CASE STUDY KORCA REGION

5.1 VITICULTURE AND ENOLOGY IN KORCA REGION

The geographical position of the Region, with a variety of climates and microclimates and land reliefs, sunlight, abundant rainfall in autumn and winter that create sufficient water reserves, have made viticulture from an early age an important agricultural activity in the Korca Region. Viticulture is considered as one of the priority sectors of agricultural development because it is valued as a profitable business.

Compared to some other agricultural crops, the incomes created per unit of agricultural area, especially in hilly and mountainous areas, are several times higher.

Viticulture development and wine production is one of the fastest and most sustainable possible ways to increase the level of employment and income not only for families in rural areas but also for the economy as a whole.

In the Region of Korca there are 1117 ha of vineyards, which produce about 6683 tons of grapes, with an average yield of 63 kv / ha divided into several Administrative Units (tab).

Administrative Unit	Surface (Ha)	Productivity (Kv / ha)	Produce (Ton)
Mollaj	20	45	70
Bulgarec	140	60	841
Voskop	190	38	692
Pirg	48	86	400
Maliq	85	28	231
Leskovik	120	55	660
Cërravë	110	100	1100
Proptisht	34	100	640
Bucimas	64	100	340

NR	Wineries	CAPACITY (HL)	DISTRICT
1	Korca 2000	400	Korcë
2	Nikolin Mici	450	Leskovik
3	Dhori Bregu	400	Leskovik
4	Musa Biba	200	Leskovik
5	Nexhdet Caco	400	Grabovicë, Pogradec
6	Bledi Blaceri	250	Pogradec
7	Rilindja	400	Korcë
8	Niko Sotiri	200	Korcë
9	Altin Ceci	200	Gurishtë, Pirq
10	Elips -94	300	Libonik, Maliq
TOTALI		3500	

Our wineries meet their requirements 30% of domestic production and 70% buy domestically and Import.

They produce about 70% red wine and 30% white wine.

The varieties they use are: Cabernet, Merlot, Tokaj, Pamid, Shardone, Reizling, Mavrud, Gray Pinot, etc.

A considerable amount of wine is produced in traditional household conditions

An official end-of-year holiday has been established in the Municipality of Pogradec, which coincides with the opening time of wine bottles produced for family consumption.

A significant amount of wine is produced in clandestine conditions by some restaurants who are in violation of the law and a potential risk to the consumer due to the uncertified product.

5.2 AUTOCHTONUS GRAPE VARIETIES IN KORCA REGION

BLACK SERINA

Indigenous cultivar in the Korca Region,

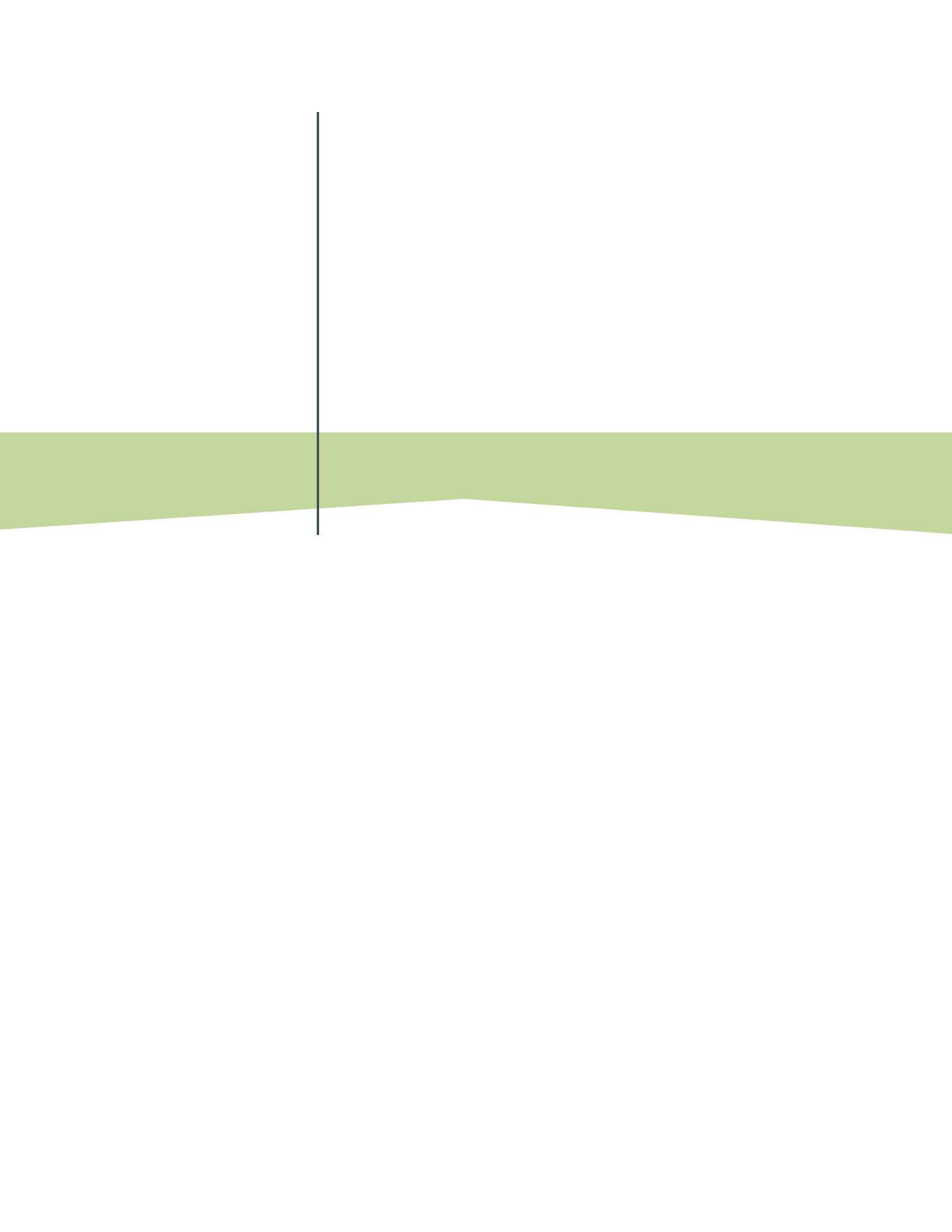
It ripens from the end of September - the beginning of October and manages to accumulate good values of sugar 19-22%.

The ancient variety for harmony, harmonization, which fits in the quality of proper aging, is suitable for the high level.

Produces satisfactorily on the buds of the last 1 year base. The producer is well maintained in various forms of cultivation.

Gives high output for stumps and surface units.

You should not charge me with high loads per stump as quality Gives 19-20% sugar. Under the name of Black Serine are often included even worthless foreign mixtures. It is therefore an urgent task to isolate and propagate the best clones to make the variety valuable.



WHITE SERINA

Ancient variety widespread in southern Albania.

It was the base of viticulture before the appearance of phylloxera. (Phylloxera vastatrix)

Destination: production of high quality table wines.

Grapes accumulate 22-24% sugar. It is moderately late ripening. Productivity coefficient 1.15. Gives 70-75% fruit shoots. Bunch: medium, moderately compact, rarely brittle. Grains: medium or small, round, thick membrane, yellow to golden in color.

Since it is a grape with high oenological values, there is a need to add only the most valuable forms in support of a careful selection work. It is recommended to spread more in its cultivation areas

MANAKUQ

Pink grape cultivar.

Selected, preserved and distributed in the vineyards of the Balkan countries. Very early in the viticulture of Korca. It belongs to the group of Euro - Asian cultivars (Vitis Vinifera) Proles Pontica.

The grapes are ripened on September 5-15. Produces satisfactorily up to 120 kv/ha. It is used for the production of special rose wine in the fields of Korca and elsewhere, etc.

The wine produced is pleasant, light, with a floral aroma and a harmony of different ingredients (tannins, alcohols, acids etc)

LESKOVIK
WHITE DEBINA

It is originally the oldest country, a product of long popular selection in the southeastern areas of our country. The leaves are medium or large.

The vesicle is medium, compact. Medium grains, oval. Maturity moderately late.

Productivity coefficient 1.2-1.5 with about 75% fruit shoots. Accepts mixed pruning and can give over 100 kv / ha. Accumulates 22-24% sugar with 5.7-6% acidity. In the lowlands and coastal areas it should spread more.

MAVRUD: from
the Greek "black"):

It is a red wine grape used for blending as a color enhancer with, for different wines. Produces satisfactorily in the base buds therefore goes well even with short pruning. Variety that does not excel in high yields, with small to medium grains. Late maturity. It is an old French cultivar.

Medium-sized leaves, with down below it, easily detached.

Medium or small vesicles 8-10 x 11-14 cm.

Medium to small grains, round, thin-skinned, yellow, covered with fine brown spots, especially on the sunny side. Gives more than 100 kv / ha. It gives 88-95% of fruit shoots, of which 90% have 2-3 buds.

It is known for its medium resistance to cold.

Accumulates up to 22-23% Aligote sugar.

TOKAJ

Hungarian origin.

Widespread in the Korca region

It is known for its high quality wine.

Medium round leaves.

Medium trunk-shaped.

Medium round grain.

Slightly thick yellow or greenish-yellow bark with spots.

Liquid, sweet brick with characteristic taste.

Adapts to different climatic conditions and agro technical practices. Likes light and clear hilly soils.

It is traditionally pruned short but should also be tried with mixed systems. Does not accept high loads with loops as it spoils the quality. Medium-term harvest.

**TOKAJI
FRIUL** **OF**

Leaf: medium, roughly round, almost hairless.

Bunch: medium, elongated in the shape of a pyramidal trunk, sufficiently compressed. Grains: medium, round.

Bark: thick, yellow or yellow-green with dots. Pulp: juicy, sweet, with characteristic taste.

Adapts to different climates, not so hot enough. Likes well-contrasted hilly soils or stony field soils that inhibit the growing power of vines. Adapts to different forms of cultivation, likes long pruning with medium length sprout. Gives high and regular output. Heavy load with loops, reduces the quality of production. Medium to early harvest.

In case of rain, something is pushed forward to prevent the grains from falling. Slightly susceptible to rot. Gives a good wine, straw yellow color, with green reflections, with pleasant aroma, light taste of almonds, not beefy, alcoholic that ages easily.



WHITE MUSKAT

It is cultivated in the old vineyards of Përmet, Leskovik, Pogradec. The bunch is medium, compact and seldom brittle. The grains are medium-sized, round, yellow-gold, with a bronze shade on the sunny side, Medium-ripening cultivar, ripens in late August-early September. The vegetation period lasts 147-155 days. Has affinity with all types of sub / grafts.

The average weight of a bunch is 120-130 gr. Yields 60-80 kv / ha. Accepts pruning mixed with sprout with 10-12 loops.

It is recommended to spread.



MUSKAT ADDA

Mostly of Italian origin, brought to us in 1960.
Bunch: large or medium, moderately compact.
Grains: large, slightly oval with thick, elastic membrane, blue-violet, with dense breeze.
Brick: strong, crackling, fragrant.
Medium ripening variety.
Gives 80% fruit shoots.
The weight of a bunch 300 gr.
The yield can go up to 150 kv / ha.
Prefers mixed pruning.
Accumulates 17-19% sugar.
It is recommended to spread even more.

MERLOT

Leaf: medium, green in color
Bunch: medium, pyramidal in shape, more or less brittle.
Grains: medium, round, blue-purple. Pulp: juicy, sweet, herbaceous, more or less strong.
Adapts to different soils and climates. Produces: over 4-5 loops therefore apply mixed pruning.
Production: abundant, stable.
With medium maturity.
Sensitive only to scarring.
Produces typical wine with exquisite taste, color of, with light taste of herbs, alcoholic, aromatic, with low acidity.



KABERNET SOVINJON

Leaf: Medium, pentagonal.

Bunch: medium-small, cylindrical, moderately compact; Grains; medium, round, Bark: bluish-purple, thick; Pulp: slightly fleshy, with a slight taste of herbs.

Adapts to mild, dry climate. In high areas it likes south-facing hills, and rocky or well-drained soils. Does not accept very fertile and moist soil. Likes mixed pruning. Gives average but stable products. Medium maturity. Gives strong ruby-red wine, with a tendency to purple, alcoholic, aromatic and with a slight characteristic taste of herbs.

BLLEK MEXHIK

It is important for large production, for early baking, for brittle and large coating.

Foliage: medium-large. Bunch: medium-large, weighs about 600 gr, has a conical-pyramidal shape; brittle. Grains: blue-black, with elongated oval shape, weight over 6 gr.

Contains: 16% sugars, acidity / acidity is 5.1 g / l, pH is 3.9.

Blooms early,

Maturity is early - very early (first 10 days - second of July.

Distinguished for high production per stump and per unit area. It withstands pressure and shocks well.

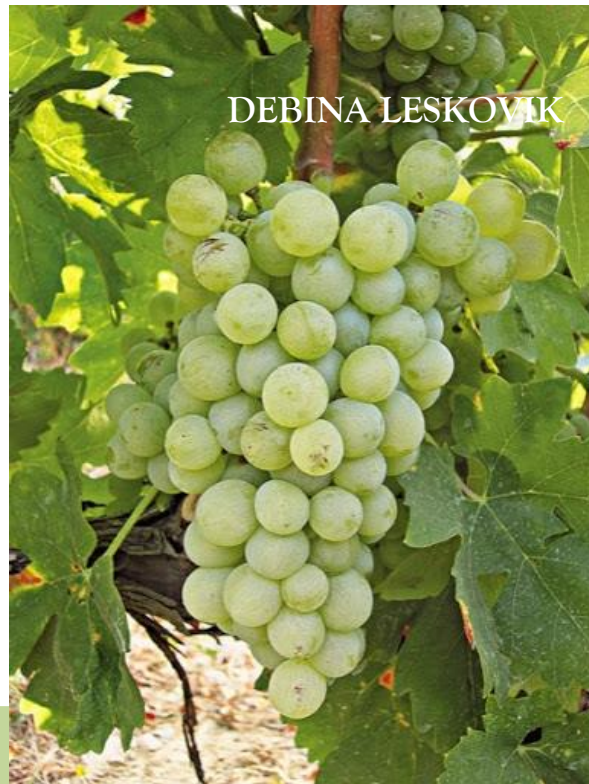


KORCA REGION

WINE C



MERLOT



DEBINA LESKOVIK

SWOT ANALYSIS OF THE VITICULTURE MARKET AND WINE PRODUCTION IN KORCA REGION

Based on the current situation of the viticulture sector in general and winemaking in particular, we conclude that.

STRENGTHS:

Climatic conditions in general with a variety of microclimates very suitable for vine cultivation Rich Regional tradition but also in the cultivation of grapes and wine production. Cultivation of indigenous and valuable varieties for the quality of wine production such as Serin, Tokaj, Merlot, Mavrud, Reisling, Cabernet, etc.

High incomes in the viticulture and wine production sector compared to other sectors. Presence of the Faculty of Agriculture at the UK, which prepares specialists in the field of agriculture in general and Horticulture in particular.

WEAKNESSES:

Fragmentation of agricultural land into small plots Weaknesses of national legislation especially in relation to land ownership. The fragmented farm structure hinders the efficiency and investment needed to increase the competitiveness of domestic production. The reluctance of local farmers to join cooperatives. Lack of state subsidies for the viticulture sector and wine production. There are few vineyards owned by the canteens of the Region Domestic production oriented towards quantity which reduces the quality of grapes and consequently wine. Existence of excise tax on domestic wine. Lack of studies on clonal selection of local varieties that should play a key role in this sector. Lack of genuine specialists in the wine production sector.

OPPORTUNITIES:

The hillsides traditionally with vineyards are a potential for area growth, grape and wine production in the Region. Primary investments for the establishment of a vineyard are small compared to other crops and its self-repayment is short. The commitment of the government through concrete legal and fiscal measures to formalize the market as a whole as well as to classify wine as a common food product excluding it from excise. Agriculture a priority for the economic development of the country in the current government program represents an important factor that will affect the increase of support with financial funds.

THREATS:

Excessive supply of the global wine market.

Change in wine consumption culture.

Market pressure of importing companies on domestic production.

High competition from the countries of the region which offer wines where quality is combined in a profitable balance with the price of wine.

The existence of a large number of informal producers who not only undermine fair competition, but offer in counterfeit wines.

Lack of loans with favorable conditions for viticulture and wine production.

REFERENCES

1. Research Article / Albanian Viticulture and Wine Production
2. Report of A Working Group On Vitis European Cooperative Programme For Plant Genetic Resources / National Reports
3. University Fan s. Noli .Korce , Albania Resources
4. Ministry of Agriculture and Rural Development (Ministria e Bujqësisë dhe Zhvillimit Rural) studies.
5. INSTAT (Institute of geography and statistics in Tirana) resources