

Prospects of Using Endemic Vine Species in Adjara-Guria Region, Georgia

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ABSTRACT. Implementation of state support policy in the field of viticulture and winemaking created conditions for developing viticulture and winemaking in the whole Georgia, including Adjara-Guria. The paper analyzes the dynamics of the development and socio-economic consequences of the gradual development of this sector, as well as possible prospects based on scientific research, official statistical accounting and other information sources conducted in recent years. Based on the official statistical record and our research materials, the grape varieties in Adjara-Guria are characterized in terms of the land area occupied by the individual species and varieties and the number of roots. Extensive analysis has been done according to the distribution of ancient endemic varieties of Chkhaveri and Tsolikouri in the area and number of planted roots. Here are characterized the bioecological features of the varieties of table and wine vines, as well as the popularity of the wine industry and production of wine and wine products. © 2019 Bull. Georg. Natl. Acad. Sci.

Key words: endemic, adaptation, introduction

Comparative data of researches and statistical surveys carried out by us show that different local endemic grape varieties were historically spread in separate regions of Adjara-Guria, although new grape varieties were also cultivated [1,2].

Prospective varieties of high-quality wine and other products have been selected based on the long study of systematic structure of vine varieties. Chkhaveri and Tsolikouri varieties are of particular importance. Different varieties are also used by the entrepreneurs in different regions of Georgia, but the land area, the number of crops and other features are not large-scale.

The number of Chkhaveri variety saplings in Adjara is 23369, in Guria – 12116.

For real assessment of viticulture and winemaking potential in Adjara-Guria, we consider the evaluation and use of historically preserved wine varieties, of which the wines with unique characteristics can be obtained [3-5].

In recent years, the viticulture and winemaking strategy has demonstrated that the introduction of Georgian wine into the world market is possible only by improving the quality of the sector and using modern advanced technological innovations to produce wines with new unique properties.

From this point of view, according to the actual data we studied the natural-climatic conditions of Adjara and Guria, geographical position. Relief and diversity of grape varieties create significant potential for further development of the field. At the same time, the necessity of the need is to study Georgian less-known varieties of widespread vines on the scientific level. The issues of updating the varieties, the rational zoning, the expansion of the local wines, the determination of viticulture and winemaking zones, the creation of new varieties of product and improvement of land use should be thoroughly examined. It should also be noted that today the development of viticulture and wine industry in Georgia is closely related to tourism development. This was the basis for active development of wine tourism in Adjara and Guria. It is noteworthy that the participants of the tour give preference to “Tsolikouri”, “Chkhaveri”, “Ojaleshi”, “Aladasturi”, “Satsuri”, “Pino”, “Saperavi”, “Klarjuli”, “Pavnili”, “Mandikouri”, “Sachkhvera”, “Jani” and the wines made from grape raw materials. With the development of wine tourism dynamically develops adequate infrastructure in the form of wine factories, wine houses, wine cellars and other facilities.

We consider the following objectives defined by the concept of wine tourism engagement policy:

- Complex technological support for improving the quality of wine making in family and farming nurseries, enhancing the quality of service in wine tours;
- Training and consulting of individuals interested in viticulture and winemaking;
- Selection of high-quality grape varieties for the production of environmentally friendly grapes, arrangement of nurseries with standard planting material and development of agro-technical and technological processes;
- Informing wine and wine-material producers about the number of markets of production received and informing consumers about the supply of products, i.e. marketing management.

In recent years, family-run wine festivals run by the Diocese of Batumi and Lazeti in Adjara have clearly demonstrated the potential of viticulture and winemaking in Adjara-Guria, which creates serious prerequisites for viticulture and winemaking at an accelerated pace. The number of wine samples submitted by different winemakers exceeded 150-200 on average each year. Of the total number of white and red wines commissioned by the festival's tasting committee, an average of 70-80 percent of the samples were considered qualitative. 35-40 percent of the respondents received the highest evaluation. Through the introduction of advanced scientific research, development of advanced agro and recycling technologies into Adjara viticulture will occupy an important place in the nearest future.

At present, as a result of scientific researches carried out in different periods of time, Adjara has already identified about 109 local varieties of vines in Guria, which have significant potential for use in wine and other production. It should be noted, however, that in order to develop the scheme zoning, care and processing technologies of grapes of each variety at the modern level, scientific researches should be intensified, accelerating the integration of education, science and business in this field.

The probable potential of the development of viticulture and winemaking in Adjara and Guria is proved by the results of studying vine varieties in Gvara-Khutsubani vine and fruit demonstration farms, as well as by the quality of harvest and grapes and the adaptation to their environmental conditions. Here, the vast majority of different types of wine are provided by a wide range of enterprises, including the following:

- Sabas Margaliti (pearl) – the earliest variety of white grape vine. In terms of implementation it is perspective for Adjara-Guria and deserves proper attention;
- Kartuli Saadreo (early Georgian) – early ripening table grape perspective variety in the lowland and in mountainous places at 1000 m above sea level;

- Italia – a high-grade table grape variety. Under the conditions of subtropical lowland zone and mountainous region, it revealed high agricultural and technological features and it is recommended for a wide distribution;
 - Klarjuli – Georgian white high-grade table grape variety. Historically, the area of its spread is limited to the Black Sea coastal zone of western Georgia, mainly in Adjara-Guria regions;
 - Tsolikouri – Georgian wine-vine variety giving high-quality products for making wine. It is well suited to the conditions of Adjara-Guria regions. Expansion of this vine variety is expedient and prospective;
 - Tsulukidze Tetra – a white grape variety, which is well adapted to the soil-climatic conditions of the coastal zone of Adjara. It produces high quality products and at the same time it is relatively resistant to diseases. This variety is more prospective for Adjara-Guria regions;
 - Ojaleshi – is the oldest Georgian reddish grapevine. In this regard it is advisable to cultivate or plant new plantations;
 - Chkhaveri – is a Georgian variety of reddish wine-grape. It is historically widespread in Adjara-Guria and is a high-quality wine material. As the oldest relict grape variety, it showed high agricultural and technological properties. The wine is recognized internationally;
 - Latiuri – a white grape variety. It is mainly planted in collective plots of Georgia. Studies have convinced us that it is a type of high yield and sugar content. We recommend that this grape variety be implemented in Adjara-Guria region in a large scale;
 - Kakutura – a fairly good variety of white-colored table wines. It gives high quality products. In local conditions, it showed the best agricultural and technological characteristics;
 - Prima – is a variety of early ripening grape. It is characterized by high yield, quality and useful properties. It is well adapted to the Black Sea coastal zone of Adjara and is considered to be a very promising variety;
 - Cardinal – is a high-quality variety of early ripening grapes. It is distinguished by high yield, quality, transportability and long-term storage capacity. Due to the positive economic and technological attributes it is promising to cultivate it in the regions of Adjara-Guria;
 - Aledo – is distinguished with stable fruit-bearing, high sugar content and storage capacity. Its economic and technological features satisfy all the requirements of the wine variety and its planting in agribusiness needs to be utilized for a wide production purpose.
- In the Adjara-Guria regions, in the implementation of projects and programs of prospective directions of viticulture and winemaking, an important role is played by the ancient varieties of vines spread in Adjara-Guria, preserved in the areas of Turkish Lazistan. In recent years scientific research works have been conducted for the identification, study and production of these grape varieties. Several grape varieties have already been studied - the grafts are introduced to obtain high quality, standard planting material in large quantities.
- In recent years, in order to develop viticulture and winemaking in Adjara and Guria, wine, wine and cheese festivals are held in Batumi headed by the Metropolitan of Batumi-Lazeti, the Ministry Agriculture of Adjara, Batumi Shota Rustaveli State University and other organizations [6-9]. The festivals presented the samples of wines made by family technologies. White and red wines from Adjara and Guria such as Tsitska, Tsitska-Tsolikouri, Krakhuna, Aligate, Atinauri, Sakmiela, White Kamuri, Aladasturi, Dirgula, Dzelkhavi, Tagidzura, Satsuri Pink, Otskhanuri Sapere, Chkhaveri, Ucha, Usakheluri, etc. have gained high ratings and awards.
- Foreign visitors are interested in the wines made from local varieties of grapes, which once again

prove that the development of viticulture and winemaking in Adjara and Guria should be considered as one of the perspective directions.

The results of the research carried out by us for years of development and perspectives of viticulture and winemaking in Adjara and Guria allow us to conclude:

- Today, we need strong peasant farms, the main purpose of which will be to create a system of industrial economic relations and infrastructure that will increase the income of the entrepreneurs and improvement of living standards, along with other fields of rural agriculture, together with the development of viticulture and winemaking. This should be one of the main ways to form rural market structure;
- Georgian traditions of consumption in the historical past of grapes and wine products, as well as great experience in the implementation of scientific research and practical works for technological provision of grape, wine and other food products should be developed and preserved;
- The process of satisfying the real demand of the market segment on a continuous, dynamic demand and domestic production, particularly on table grapes, on demand for domestic and wine grapes should be continued and expanded;
- Apart from the above vine varieties, new species, varieties and forms of scattered and forgotten endemic vine should be revealed and studied;
- In order to meet the intensive, rapidly growing demand on wine tourism and to increase the socio-economic level of the population, a wide scientific research should be carried out through the development of ecologically pure wine and wine material made from the new variety of vines and through the state program related to it, via activating the investment processes and accelerating the development of scientific-technical and technological achievements;
- In order to ensure the development and production of Georgian wine and wine processing industries in the efficiency and optimization of the sectoral structure of the national economy, the state should regulate the production and development of viticulture and winemaking strategic policies.

ბიოტექნოლოგია

ვაზის ენდემური ჯიშების გამოყენების პერსპექტივები საქართველოში, აჭარა-გურიის რეგიონში

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მევენახეობა-მეღვინეობის დარგში სახელმწიფოს მხარდამჭერი პოლიტიკის გატარებამ შექმნა პირობები მთლიანად საქართველოში და, მათ შორის, აჭარა-გურიაში მევენახეობა-მეღვინეობის განვითარებისათვის. სტატიაში გაანალიზებულია ბოლო წლებში ჩატარებული მეცნიერული კვლევების, ოფიციალური სტატისტიკური აღრიცხვისა და სხვა ინფორმაციულ წყაროებზე დაყრდნობით ამ დარგის თანდათანობით განვითარების დინამიკა და მიღებული სოციალურ-ეკონომიკური შედეგები, ასევე განვითარების შესაძლო პერსპექტივები. ოფიციალური სტატისტიკური აღრიცხვისა და ჩვენი კვლევის მასალების საფუძველზე საფუძვლიანადაა განხილული აჭარა-გურიაში გავრცელებული ვაზის ჯიშები, მათ მიერ დაკავებული მიწის ფართობები ცალკეული სახეობის და ჯიშების, და ძირების რაოდენობის მიხედვით. დაწვრილებითი ანალიზია გაკეთებული ჩხავერისა და ცოლიკოურის უძველესი ენდემური ჯიშების განაწილების, ფართობისა და გაშენებული ძირების რაოდენობის მიხედვით. დახასიათებულია სუფრის და საღვინე ვაზის პერსპექტიული ჯიშების ბიოეკოლოგიური თავისებურებები, აღნიშნულია ღვინის და ღვინოპროდუქტების წარმოების სახალხო მეურნეობრივი მნიშვნელობა. შრომის დასკვნით ნაწილში წარმოდგენილია აჭარა-გურიაში მევენახეობა-მეღვინეობის დარგის სოციალურ-ეკონომიკური და კულტურული განვითარების მნიშვნელობა თანამედროვე საბაზრო ურთიერთობის პირობებში.

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