Introduction

From ancient times till today, grapes have played an outstanding role in human life, being used directly as fruit and raisins, or transformed into grape juice, wine, and spirit. Viticulture and winemaking played important role in economy, social and cultural life in Armenia starting from the timing of formation of the complex societies, which chronologically corresponds to the so-called Late Chalcolithic period. The world’s earliest known wine-making facility has been discovered during the excavation of Areni-1 cave in 2007 dating back to 5600 years (the beginning of the IV Millennium BC), also confirmed by archaeochemical analyses (Bernard et al. 2010). Currently from the approx. 8,000 varieties which are believed to exist in the world, only 200 – 300 are cultivated on a large scale (Galet, 2000). Today, owing to an ongoing preference for a small number of “global player” varieties like Chardonnay or Cabernet Sauvignon over the world and for example Areni and Voskepar varieties in Armenia, autochthonous varieties with an interesting potential for wine market or genetic improvement are endangered and knowledge about their use and characteristics is quickly disappearing. The conservation and sustainable use of autochthonous, old, long-neglected, endangered, grapevine cultures is not only of theoretical interest, but also have great practical significance, as the importance of grapevine genetic resources goes beyond national borders. It was reasserted that without this diversity, viticulture and enology would be endangered and the consequence of genetic erosion would be a uniform viticulture, which would be susceptible to any kind of biotic or abiotic stress (Maul et al. 2003).

To promote the conservation and sustainable use of autochthonous wine grape varieties for wine production in Armenia coming the Sustainable Management of Biodiversity, South Caucasus Program of German International Cooperation (GIZ) is initiated the development and publication of bilingual comprehensive book for wide audience about Armenian Vines and Wines. The main idea of which is to ensure improved knowledge and increased awareness among government, academic, business community and other stakeholders.

CHAPTER 1. WINE IN ARMENIA: HISTORICAL PERSPECTIVE

1.1. The origin and importance of grapevine diversity in Armenia

The genus of Vitis and wild progenitor. The cultivated Vitis vinifera and its domestication with light to Armenia. Paleobotanical and Archaeological evidences. The grapes and wines as food, as medication, as cosmetics, as cultural phenomenon.

1.2. The roots and tradition of wine making in Armenia


CHAPTER 2. LOCAL GRAPE VARIETIES AND THEIR WINES: THE MODERN WORLD


2.2. Local grape varieties

Description and distribution of grape varieties of Armenia. The situation in 20 and 21 centuries. Enrichment of existing scientific data with modern research (old and modern research tools). Identification of synonyms and homonyms. Major local native grape varieties little-known or unknown native grape varieties. Unlocking of old and neglected grape varieties in Armenia.

2.3. Local grapes and their wines

The Wines from local, old and neglected varieties. Case studies: Description of the wines including ampelographic description, photos, genetic information + wines making technology in brief and wine properties (styles, colors, aromas, and flavors).

2.4. The culture of wine drinking Old traditions and modern trends. Which wine to choose and why.

CHAPTER 3. GRAPES AND WINES: IMPORTANCE, PERSPECTIVES AND OPPORTUNITIES

3.1. Thriving local grape varieties

Description of globally and locally ecological and environmental factors (including climate change). Threats linked with current situation in gene banks and grapevine collections, vineyards of Armenia. Local grape varieties, their inventory and current situation.

3.2. The future and opportunities of wine breeding and winemaking

Grape genetic resources characterization (traits identification). Old neglected and ancient resources for modern world. The potential of old and neglected varieties and perspective of their application. Actual trends in wine making and Armenia.

3.3. The ways of effective preservation and sustainable use of grape genetic resources

Inventory, phenotypic and genetic characterization, promotion of winemaking, tourism, conservation in gardens, collections and in vitro preservation, promotion of leaflets, brief stories about local varieties.

The book will be published by the end of the 2015 in Armenian and English. It will offer benefits not only for the research and breeding community, but also for the archaeological history of viticulture and for viticulture and wine making at large, as well as for Armenian agriculture and for wider socio-economic development. The publication of the book will support and facilitate the sustaining of existing and neglected autochthonous varieties and enriching and diversifying the quality of grape and wine production for the benefit of consumers.

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