

PLEADING FOR THE GRAPEVINE CULTURE

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Abstract

The grapevine is cultivated with good results on hilly terrain, on sand and sandy soils, thus ensuring high recovery of these categories of agricultural land considered unsuitable for other crops. Vineyards, so related to people existence everywhere, became something more than just places of economic interest. What makes the viticulture to be so important is that it refers to the food value, therapeutic, recreational of grapes, must and wine, wine derived products and residues from wine, the great extent of the area occupied by vineyards, to good natural conditions (pedo-climatic) existing in our country and also to the aesthetic value of the land planted with vines worldwide. The fitting of the gardens of the house, both in the countryside and in urban areas, includes in most cases the presence of grapevine plants cut in different art forms, their care being an exciting job. In general, by the presence of vines are valued the spaces next to existing buildings (house, yard, various outbuildings), along fences and roads. Grapevines location, cutting types chosen, besides beautifying the yard, must make a harmonious aspect of the whole surrounding. Chosen forms of management (arches, halfarches) can protect the strong sunlight places. By the kiosks or other artistic realized forms are created spaces for rest, shade.

Keywords: viticulture, landscape, environmental protection, ampelotherapy, oenotherapy

1. INTRODUCTION

Grapevine is part of the crop plants that occupy large proportion of the cultivated area of the Globe. Since ancient times, grapevine was an essential factor of progress for most people practicing this ancient occupation. Grapevine culture in terms of economic efficiency is possible in regions where the average annual temperature is between 9 and 20°C. The area planted with grapevines have an insular distribution, most of them being concentrated between the parallels of 35 and 38° Northern latitude and, 25 and 38° Southern latitude (Dobrei et al., 2005).

In our country, the grapevine has been cultivated since the ancient times. The oldness of this occupation are lost in mists of the times; the fossils found on our land prove the grapevine existence from the beginning of the Tertiary Era.

The history of grapevine cultivation from ancient time in Romania led the historian and writer Bogdan Petriceicu Hașdeu to assert more than one century ago that „Romanians have been always a viticultural nation, without any interruption”.

Viticulture is an important sector of Romanian agriculture, occupying a large area (192 334 ha in the year 2008) and having a high intensive degree.

Currently, the viticultural area of our country is concentrated in 10 viticultural region, 37 vineyards, numerous viticultural centers and lands (Cotea et al., 2000).

The importance of the viticulture results from its main facets, from which the most important are of technical occupation and science with synthetic character. Over time, the economical and social importance of viticulture has increased steadily; also, the food and therapeutic importance of the grapes and grape products, the role of landscape of the vineyards and the importance of vineyards to protect the environment are well known.

2. ECONOMICAL AND SOCIAL IMPORTANCE OF VITICULTURE

Viticulture is an intensive sector of agriculture, characterized by a high coefficient of revaluation of the land. Value of production from one hectare planted with grapevine equals to 10-15 ha of cereal

crops. Incomes varies year to year, depending on grapevine cultivar, system of culture and viticultural center.

The activity in viticulture field provides jobs for a big part of population, an aspect particularly important in the current alarming increase of the unemployment. Compared with other crops, the grapevine culture requires more labour (about 100 workdays/ha). Size of area, technical equipment, the low level of mechanization of works (cutting, tying), make the viticulture to be a source of livelihood for the people directly involved in this activity or in adjacent sectors (nurseries, processing units of the grapes and bottling of wines).

The grapevine culture is a productive activity for a various number of people, depending on each country's specific conditions. In 1998, the viticulture was the main occupation of 330 000 families, ensuring the existence of one million people (Grecu et al., 1998).

For cultivation of grapevine are used large quantities of materials, chemicals, machinery, and, thus, the viticulture benefits from the technological development of leading industries. Vineyard establishment and maintenance require the existence of some materials (trellis, wire, scissors) and special system of specific countries for which the viticultural countries are market. Because the grapevine requires large quantities of pesticides, in order to obtain organic products, the research in this fields is stimulated.

The viticulture is a source of raw materials for the national economy. The grapes are consumed fresh or processed, representing raw materials for wine obtaining, for food industry, where are obtained grape juices, concentrated musts, jams, stewed fruits, raisins. The wine becomes raw materials for obtaining vermouth, champagne, spirits. The seeds are used to obtain the extract oils (Stănescu and Iouraș, 1991); the grape marc is an excellent organic-mineral fertilizer (Dumitriu et al., 2003) and the cut canes are used as fertilizer or firewood.

In order to recovery entirely the vegetable waste resulted in the agro-industrial process applied in viticulture and oenology fields, some ecological processes were proposed for utilization of the wood cuttings, leaves and grape marc as raw materials required for intensive cultivation of edible and medicinal mushrooms (Petre et al., 2005; Petre, 2006).

Table grapes, wines, spirits, champagne, raisins, grape juice are very required products for export.

3. FOOD AND THERAPEUTICAL IMPORTANCE OF THE GRAPES AND GRAPE PRODUCTS

Due their chemical composition, grapes constitute a valuable and necessary food for human body. In recent years, an increase in consumption of fresh grapes was registered due to the general trend to move towards healthy eating in which plant resources play a crucial role.

Grapes contain a lot of necessary nutrients for human body, such as: 12 – 25% sugar (glucose, fructose), 1 – 2% organic acids (tartaric, citric, malic), 1% mineral salt (Ca, Fe, K, P), 0.15 – 2% nitrogen compounds, vitamins (C, B1, B2, PP, A, E), enzymes, polyphenols. These substances are comforting to the body, having an energy, mineralizing and therapeutic role. One kg of fresh grapes provides to the body 800 -1200 calories, which equals the energy value of: 500-700 g beef; 300 g bread; 1.1 L milk; 1.2 kg potatoes; 3.5 kg tomatoes; 2 kg apples. After the energy value, grapes ranks the fifth in the series of the main elements, as cheese, bread, meat and milk.

Ampelotherapy (ampelos - Greek = grape) or grape cure has millennial history, being valued of Greek and Roman physicians of ancient. Today is widely used in balneary centres – sanatoriums in France, Germany, Switzerland, Italy, Ukraine, Russia, Georgia, Moldavia, to treat gastrointestinal diseases, central nervous system, cardiovascular diseases (Găină, 2000).

The juicy grape varieties, effective in enhancing diuresis are recommended in the cures with grapes. Crispy varieties, rich in cellulose and pectins are recommended for bowel tissue excitation. By the diuretic and laxative combined actions, the grapes contribute to the detoxification the body.

For the treatment of the chronically respiratory diseases aromatic grapes varieties are used. In the therapeutic complex, the ampelotherapy is included as an important element in the treatment of liver, kidney, intestinal tract, tuberculosis, anemia, asthma.

The therapists recommend sometimes to the patients to eat the grapes (berries) by separating the seeds and the peel because they cause difficulties in digestion. In this case, seedless varieties are invaluable in the diet of patients, especially children.

The European traditional healers used Grapevine sap to treat skin and eyes diseases. Other uses include the using of the grapevine leaves to stop bleeding. Also, to treat the pain throats were used unripe grapes, and the raisins were used to treat the tuberculosis. In the treatment of cancer, cholera, smallpox, dizziness, infections of the skin and eyes, diseases of the kidney and liver, unripe grapes were used.

Wine - the main product obtained from grapes is the healthiest alcoholic drink. Rational consumed, the wine is a necessary food for human body (L. Pasteur, 1878).

Since the ancient times, the wine was used for curative purposes (oenotherapy; oenos - Greek = wine) by renowned physicians: Hippocrate, Galen, Paracelsius. Also, the modern medicine uses the wine to cure a number of diseases.

The wine is very appreciated in the world for the prevention of infections. If this drink is consumed in normal quantities, the wine serves to strengthen the body, to cheer up and, also, to eliminate the stress.

Phenolic compounds from wine constitute a group of substances with special properties which have attracted attention of many specialists (winemakers, pharmacists, physicians), due their prophylactic and therapeutic traits.

The person who appreciates the wine is a friend of wine, not in the meaning of drinker, but the person who knows and respects the wine and those involved in its production. Hippocratic aphorism that “the wine is something that fits perfectly to the man, whether healthy or sick, if gives it with fit and with straight measure” keeps its actuality over 25 centuries.

4. ENVIRONMENTAL PROTECTION

Grapevine has a great capacity of adaptation, being cultivated successfully on fertile soils or on less fertile ones. It covered well trouble lands, sands (e.g., Sadova-Corabia vineyard) and eroded lands, in the case of viticultural centers (Pietroasele, Cotnari, Jidvei, Drăgășani) where the exceptional quality of obtained wines is an eloquent example. Thus, the cultivation of the grapevine contributes to the protection of lands and soils by erosion control by terracing and increasing the proportion of utile area (planted) (Figure 1). The presence of some grapevine plantation in massive on lands and sand slope plays a considerable role, actively intervening in soil conservation by protecting them against surface erosion, by fixation the moving sand.



Figure 1 Grapevine plantation in Ștefănești-Arges vineyard

In our country, approximately 85% of vineyards are located on lands with slopes between 4 and 25%, and approximately 8% of vineyard plantations are located on sandy soils.

When the grapevine is cultivated on large areas, in well-knit vineyards, grapevine may have a role in shaping the climatic factor with excessively character, in the purifying of the atmosphere and also, maintains and increases the soil fertility status and the overall beautification of the landscape (Oprea, 2001).

5. LANDSCAPE AND DECORATIVE ROLE OF THE GRAPEVINE

The complexity of geographical landscape of our country creates various ecoclimates for the grapevine culture. Beauty, which generally characterizes vineyards, has not only a restful function, of quiet, as that a natural park exhibits, but also of the rummage of all of the forces from man, because in the beauty of a vineyard is reflected the human triumph.

Grapevine exploits economic and aesthetic the terrain of the gardens near the house, where the cultivation of an appropriate range of varieties staggered ripening can provide a conveyer in household.

The flexibility of grapevine stalks, the exceptional development in length allow to achieve, by cutting and vegetation management, different forms, on stems of different heights, vaults, semi-vaults, kiosks, palmettes, garlands, sun shades etc. The management of the vine is made in the form of „T“, „U“, „V“ or „O“, as in the form of banks, tables etc. With good results, grapevine can be used to mask different bulwark, columns, walls in the household.

The fitting of the gardens around the house both in the countryside and urban areas, in most cases includes the presence of the grapevine stocks in different artistically forms, their care being an exciting job. In general, by the presence of the grapevine are valued the spaces next to the buildings (house, garden, various outbuildings), along the fences and roads. The location of the grapevine and the management of the chosen form, in addition to the decoration of the yard, must make a harmonious whole ensemble in the surrounding area. Chosen forms of management (vaults, semi-vaults), can strongly protect the sunny spaces. The kiosks and other artistically forms create spaces of rest, shade (Dejeu, 2010).

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