

EVALUATING THE QUALITY OF THE TABLEGRAPE VARIETIES OBTAINED AND CULTIVATED IN THE VINEYARD ȘTEFĂNEȘTI - ARGEȘ

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Abstract

Grapes as a food product can be evaluated qualitatively within the context of a complex system of physical, chemical, microbiological and sensory determinations. The tablegrapes are named according to the International Organisation of Vine and Wine, the fruit of the vine with the special destination to be consumed fresh, and which can be obtained from special varieties created for this purpose. The grapes destined to be consumed fresh are gathered at commercial maturity, when the quality is optimal and a good storage capacity can be ensured. At ripening, the ideal would be that production should represent a very high percentage from the total production. The qualitative properties are mostly dependent on the genetic characteristics of the respective variety. These characteristics can be influenced negatively or positively by the corresponding technological links.

This paper presents the results obtained in the vineyard Ștefănești-Argeș as regards the fertility, the productivity, the quality and the quantity of the tablegrape crop for the varieties: Argessis, Auriu of Ștefănești, Augusta, Muscat d'Adda and Victoria. During the period 2010-2011 these varieties registered at commercial maturity, a sugar content between 180-225g/l; the gathering period had been spaced out beginning with 15.08. until 25.10. The variety Argessis distinguished through the biggest production of 15t/ha and the most agreeable shape of the grapes.

Key words: table grapes, consumer, quality, fertility, productivity

INTRODUCTION

The latest years have recorded an important rise in the consumption of fresh grapes, due to a general tendency towards a healthy nutrition, rich in vegetal resources [2]. Grapes represent a medicine-fruit as they have high therapeutic qualities as well as the grapevine and the wine [4.9].

The confrontation of Romanian viticulture with the international one and mainly with the European one, is a current issue which obliges us achieve high quality products [3]. As the Romanian market contains few varieties with early maturation and pleasant commercial aspect, new varieties and clones meeting these requirements must be promoted. Such new varieties and clones have been already cultivated in some

plantations in the area Ștefănești Argeș. These are newly homologated varieties such as : Argessis, Golden of Ștefănești and the clones Muscat de Adda 10 Șt., Perlette 22 Șt. The famous varieties cultivated in the area Augusta and Victoria can be added to the new cultivated varieties and clones.

MATERIAL AND METHOD

The consumers' requirements, especially children and old people, for seedless grapes determine the obligatory extension of the apirene and other varieties in the viticulture of the countries having a warm or continental climate like Romania [6]. The newly created varieties, homologated during the latest years, but known only in the units where they had been obtained, will be set into

culture in order to replace some older varieties which do not meet the continuously changing qualitative requirements of consumers [8].

Observations and determinations have been made on the experimental plot located in the viticultural area of Muntenia (Ștefănești Argeș), as regards the quality of the tablegrapes under the pedoclimatic conditions of the Argeș zone. The grapevine plantation has a distance of de 2,2/1 m, the applied cutting is the Guyot type on semistock.

The tablegrapes have been harvested when their maturation ensures a superior and efficient capitalization [3]. This has been set in general, according to the variety, when the grapes reached full maturity. The moment of full maturity for the tablegrapes has been established by approximation, through performing the following determinations: the weight of the berries, the sugar content of the must and the titrable acidity. These determinations have been made periodically, every 3-5 days, beginning with the ripening of the grapes.

RESULTS AND DISCUSSIONS

Description of varieties

ARGESSIS (photo 1.) – variety homologated in 2002 at SCDVV Ștefănești. The first tablegrape variety obtained under the pedoclimatic conditions specific to the vineyard Ștefănești-Argeș. Pleasant commercial aspect, large berry (7,5-8,0 g), ovoidal, bluish-black colour. Large, uniaxial grape(450-480 g). Good tolerance to cryptogamic diseases (mildew, blight, rot). High vigour vines, suitable for arbour culture. Average production reaches 15 t/ht [7,8].



Photo 1. Variety Argessis

AURIU DE ȘTEFĂNEȘTI – the first grapevine variety for white tablegrapes, having a very early maturation, obtained under the pedoclimatic conditions specific to the vineyard Ștefănești-Argeș, homologated in 2007 at INCDBH Ștefănești. Pleasant commercial aspect, large berry (5,5-6,8 g), globular, golden-yellow colour. Large grape (400-450 g), winged. Good tolerance to cryptogamic diseases (mildew, blight, rot). The maturation of grapes in phase I (28.07-05.08). Suitable for ecological cultures. Extension in culture of the variety ensures an average production of 14 t/ha [7].

MUSCAT DE ADDA 22 ȘT. (photo 2.) – has been obtained through clone selection from the variety Muscat d'Adda at INCDBH Ștefănești and homologated in 2008; it is a variety destined for fresh consumption; the leaf is green; the grapes are medium sized, towards large (270-340 g); the berries are disposed equally on the cluster, being medium to large size; semicrisp pulp with specific taste and flavour; the skin is thick, black-aubergine coloured, highly bloomed; the vigour of the vines medium to large; it has good resistance to drought and diseases (mildew, blight and grey rot); the maturation of the grapes in September; a production of 4,9-5,3 kg/vine; it accumulates 187 g/l sugars and 3,9 g/l acidity; it has an increased resistance to handling, transport and storage [1].



Photo 2. Variety Muscat d'Adda

VICTORIA - a complex hybrid obtained by crossing over: Cardinal x (Alphonse Lavallee x Ahmeur bou Ahmeur) x Afuz ali white. The Hybridation were performed at Horticulture Research Institute (I.C.H.V.) Bucharest, by Victoria Lepadatu. Selection work continued at S.C.V. Dragasani, the variety being recognized in 1978. It is one of the most valuable Romanian variety of table grapes. Its strengths are early maturation but especially its beauty and the increased productivity. At debut the rosette and the young leaves are glared, shiny greencopper-colored. The adult leaf, medium sized (16-18 cm long) full, rarely trilobite, with a smooth gabby, and glared on both sides. The side sinuses are superficial and open, and the sinusoidal petiol is in the shape of a V. The Shoots of medium power, green colored, and the bark slightly striated. Fall chords, playing an amberbrown. Flower is monoecious normal guy May, variety is autofertil; 350-580 g grapes are large, conical or cylindrical-conical, with grains arranged in compact clusters. Large and very large grain (6,5 g), ovoid yellow-amber (amber) semicrisp pulp, balanced flavor, not flavored [5].

AUGUSTA (photo 3.) - It was obtained by controlled sexual hybridization Italy x Queen variety of vineyards, the Agronomic Institute in Bucharest. Variety approval was made in 1984. Required by timpurietate (II era of aging), size and look to the grapes. At the rosette is starting in vegetation glabra, green and brown shades, and young leaves are bronze. Adult leaf of medium size (16-18 cm long) and have fine grooves. Autumn chords acquires a brown color - brown. Monoecious flower normal guy May, variety is autofertil. Grapes are high (average 325g), conical and cylindrical-Lacs. Berries large, oval, yellow-green, semicrisp flesh with pleasant flavor [5].

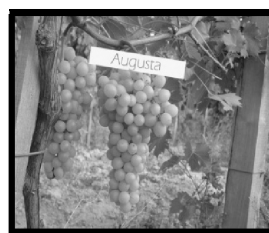


Photo 3. Variety Augusta

Table 1. Qualitative characteristics of the studied tablegrape varieties (2010-2011)

Variety	Production Kg/but.	Sugars g/l	Acidity g/H ₂ SO ₄	Weight of 100 grains (g)	Weight of grape (g)
Argessis	6,25	180	4,30	619	440
Auriu de Ștefănești	4,50	225	4,15	460	380
Augusta	5,50	186	4,25	550	320
Victoria	3,55	172	3,30	580	460
Muscat d'Adda 22 St.	5,15	165	4,14	546	425
Perlette 10 St.	4,25	170	3,80	480	400

CONCLUSIONS

1. Within the conditions of the viticultural system of the vineyard Ștefănești Arges, the obtained and cultivated tablegrapes varieties can compete in quality with many other varieties obtained at the world level (Muscat d'Adda, Perlette).
2. The variety Argessis can be noted through qualitative and quantitative productions as compared to the other varieties (15 t/ht, 180g/l sugars).
3. The variety Golden of Ștefănești is appreciated as an extra-early variety for the

vineyard Ștefănești, and completes successfully the variation range of the area (maturation in epoch I).

4. The promotion in production of the tablegrape varieties having a high biological resistance to pests and diseases, the environment will be protected in the viticultural area.

5. The production of large quantities of tablegrapes will reduce the imports of our country in such products, which sometimes originate in autochthonous varieties, cultivated in other European countries (ex. Victoria).

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