

WORKS AND OPERATIONS IN GREEN FOR TABLE GRAPES TO OBTAIN QUALITY

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Abstract

Table grapes are fruit "first consume eyes", therefore, if these varieties is very important commercial aspect of grapes, which has a decisive influence on consumer decision. If wine grape varieties, is less important commercial aspect, the basic chemical composition of grapes. To obtain beautiful, high-quality grapes must grow varieties suitable to practice the technology performance culture in which work and green jobs have a very important role. Green works and operations comprise a complex of phyto running during the growing vines. This paper includes the results of research carried out in plantations belonging INCDBH Ștefănești in 2011-2013 and refers to the quality characteristics of varieties Muscat d'Adda, Victoria, Augusta and Canner.

Keywords: table grapes, operations in green, fruit load, thinning grapes.

1. INTRODUCTION

To produce crops of table grapes is a profitable activity. Using varieties valuable land well located and properly cared for, the yields obtained are much higher compared to the varieties of wine. Quality table grapes are judged by other indices to the varieties of wine grapes and grain size, appearance, consistency, color, consistency pulp, sugar content and acidity, the harmony between them. These indices are less affected by increasing the production of grapes. Production costs are recovered in a shorter time table grapes than the wine, so the rotation of funds runs faster.

This paper aims to study the possibility of cultivation of varieties of table grapes in vineyard conditions Ștefănești recommendation rational application of technological links operations (green), consistent with high quality.

2. MATERIAL AND METHODS

Holding green fruition complement cuts in order to regulate the processes of growth and fructification. Through work and green jobs is achieved adequate ventilation and lighting hub bodies, reducing the attack of diseases and improving production quality.

Leafless part is recommended both for table grape varieties and wine grape varieties. It consists in removing leaves aged located in the right grapes to their exposure to the sun to encourage their ripening, ventilation hub and ease of application of phytosanitary treatments. Work is required in

wet years and is 2-3 weeks before harvesting to prevent gray mold attack. By leafless can remove up to 20-25% of leaves hub no longer have a role in photosynthesis. Leafless is gradually not suddenly exposing the grapes to the sun and cause scalding beans.

Standardization (slow) work inflorescence is the varieties of table grapes, which have a high percentage of fertile shoots and more flowers on the vine. Reducing the number of inflorescences is done differently depending on soil fertility and the agricultural technique applied. Each fertile shoot 1-2 inflorescences are required, the rest rupture by hand. Thinning will be executed immediately after tying flowers to be able to choose the flowers most appropriate to be retained. The rule removes the flowers small, undeveloped, located at the tip of the shoot. Inflorescence thinning of the hub has the effect of raising the average weight of a grape, global output growth, increasing the size of grains and sugar content, increasing the proportion of freight grapes.

Given existing global concerns on expanding mass culture grape varieties, expanding varieties adapted to modern consumers and producers and to maximize production quality, this paper aimed to achieve the following objectives:

- Establishing eye load to determine a balance between growth and fruiting, and between quantity and quality;
- Effective implementation norming inflorescence varieties studied in combination with load cut left eye;

Were studied varieties: Muscat d'Adda, Muscat Hamburg, Victoria, located in Pilot Station Goleasca. Plantation of grape-vine has distance 2.2 / 1 m, type Guyot pruning is applied on stock. Settlement experiences bifactorial type 4x3 (varieties) for each experimental year (2011-2013) was identical, taking into study two factors, namely:

- Factor A - variety, which included graduations: Muscat d'Adda, Muscat Hamburg and Victoria;
- Factor B - load bearing normalization b1 by thinning grapes (20%), b2 without thinning grapes.

Productivity traits of the varieties studied were assessed using indices of productivity ratio (IPR) and absolute (IPA). To calculate productivity indices were used the following relations:

$$I_{pr} = C_{fr} \times g \text{ and } I_{pa} = C_{fa} \times g$$

Grape production - determinations were performed after harvesting the grapes and consisted of setting hub and average production per hectare. Average grape production was determined for each block, and then, based on the values obtained, we calculated the average rehearsal and experimental versions. Grape production was calculated for 1 ha plantation planting density of 4000 vines / ha experimental plantation feature.

3. RESULTS AND DISCUSSION



Figure 1 - Aspect flowering hub before thinning



Figure 2- Muscat d'Adda



Figure 3- Muscat de Hamburg



Figure 4 -Victoria

Muscat d'Adda (Figure 2) - the grapes are medium-sized, conical, sometimes winged, dispersed, with average weight of 300 g beans are medium-sized or large, oval shaped, black and covered with a layer of bloom (wax). Core flesh, tasting incense; thin skin, dark blue with muscat aroma has 2-3 seeds. The vine has a vigorous growth capable of giving a high yield from cutting short shoots. It is a variety with a ripening period later. From opening buds up to their full ripening 145-155 days pass and the sum of active temperatures is 2700-2800 ° C.

Muscat Hamburg (Figure 3) is a grape variety Muscat varieties resulting from crossing d'Alexandrie and Trollinger (also known as variety Frankenthal). Muscat Hamburg grape wine became popular in England since 1860. It has big branches with well developed side branches. The stalk is long and herbaceous, like the rest of the bunch. The berries are large, fleshy, crunchy, powerful bitten and covered with a thick bloom.

Victoria (Figure 4) is a hybrid obtained by crossing varieties: Cardinal x Afuz Ali White. Hybridization was carried out in the I.C.H.V. Bucharest by Victoria Lepadatu. Selection work continued on in Viticulture Research Station Dragasani variety was approved in 1978. It is one of the most valuable works of Romanian varieties for table grapes. Required by earliness, but especially the beautiful appearance of the grapes and productivity. Grapes are very large, conical or cylindrical-conical, with beans stacked compact cluster. Large and very large grain, ovoid yellow-amber (amber); semicrocantă pulp, balanced taste, unflavoured.

With Ștefănești Vineyard, full maturation of the grapes varieties studied corresponded to the date of collection. Thus (average years) harvest occurs in the third decade of the second decade of August and September. The first variety of the subjects, which matures is Victoria (15.09). At Muscat d'Adda, grape maturation is recorded in the third decade of September (23-30.09), as well as the variety Muscat of Hamburg.

Productivity is acquiring determining the production of grapes and expressed differently depending on the development that offers medium, the suitability of climatic factors and load attributable cut eye. It is estimated using productivity index ratio (IPR) and absolute productivity index (IPA). In 2012, due to water shortage during the period of increasing grain productivity index values were lower than those characteristic varieties studied. In terms of 2011 and 2012, the grapes were developed normally and showed specific gravity variety.

Mean productivity indices, presented in Table 1 highlights the differences between the varieties studied, and between experimental variants.

Table 1. Productivity varieties studied vineyard grapes Ștefănești-Arges (average, 2010-2012)

Variety	Variation	ipr	ipa
Muscat d'Adda	Rarer	392	675
	Without rarer	300	584
	Average variety	334,2	598,6
Muscat de Hamburg	Rarer	325	428
	Without rarer	345	430
	Average variety	328,9	426,2
Victoria	Rarer	312	521
	Without rarer	329	505
	Average variety	319,5	508,3

From the analysis of experimental data on productivity is found that the highest values of relative productivity indices (average) recorded at Muscat Hamburg and Muscat d'Adda (346, respectively 335), followed by the values of productivity variety Victoria 320 absolute value indicates the highest productivity is recorded at Muscat d'Adda (629) and lowest in Muscat Hamburg (429). These values are close to those obtained in Table vineyard varieties in other years.

The average weight of a grape

The average weight of a grape is a very important character, which is an element of productivity and quality element in grape vines. The results showed the average weight of grapes addition genetic character of the variety of climatic conditions and the burden of fruit left to cut.

Table 2. Average weight of grape (g)

Variety	Average weight of grape (g)								
	2011			2012			2013		
	Rarer	Without rarer	Average variety	Rarer	Without rarer	Average variety	Rarer	Without rarer	Average variety
Muscat d'Adda	298	290	294	290	282	286	310	301	305
Muscat de Hamburg	225	220	222	206	200	203	215	208	211
Victoria	388	350	369	350	300	325	390	385	387
Alternative media	303	286	262	282	261	271	305	298	301

The values of the average weight of Muscat grapes d'Adda (282-310 g) were significantly higher than those of the variety Muscat of Hamburg (206-215 g), but lower than those of the variety Victoria (300-390 g). The average weight of the grapes was influenced by the number of grape / vine.

In Table 2 are shown the values of the average weight of a grape (g) in the three years of study, so as you can see the highest value was achieved cultivar Victoria (390 g) in 2013 to version thinning

grapes and lowest in Muscat Hamburg (200 g) variant without thinning grapes. The values recorded in Muscat d'Adda (310 g version rarer) were significantly higher than those of Muscat of Hamburg (200 g), but lower than those found in the variety Victoria.

4. CONCLUSIONS

The highest value of the average weight of the grapes variety Victoria (390 g) in 2013 to version thinning grapes and lowest in Muscat Hamburg (200 g) without thinning grape variant.

The average weight of the grapes was influenced by the number of grape / vine. The average weight values grape variety Muscat d'Adda (282-310 g) were significantly higher than those of the variety Muscat of Hamburg (206-215 g), but lower than those of the variety Victoria (300-390 g).

The highest values of relative productivity indices (average) recorded at Muscat Hamburg and Muscat d'Adda (346 335 respectively), followed by the values of productivity variety Victoria (320).

Absolute value indicates the highest productivity was recorded at Muscat d'Adda (629) and lowest in Muscat Hamburg (429).

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