

# THE COMPORIMENT OF THE GRAPEVINE SEEDLESS CANNER VARIETY UNDER THE CONDITIONS OF THE VINEYARD ȘTEFĂNEȘTI-ARGEȘ

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## Abstract

*A comparative study over 3 years has been carried out in the experimental lots of INCDBH Ștefănești on the main varieties apirens . A special attention has been drawn by the Canner variety, the variety apiren with medium ripening. The identification of the biotypes (clones) having superior quality and production characteristics which manifest constantly, has been achieved through the study of the elites chosen in comparative fields, using the method of repeated determinations in groups of years, under specific vineyard conditions. Canner is a variety obtained by OLMO in 1969, by cross-breeding the varieties Hunisa and Sultanina. It is a variety with white, large, oval, seedless grapes which can be used mainly in obtaining raisins, jam and compote.*

*Keywords:* clone selection, phyto-sanitary testing, plantation mother, comparative study

## 1. INTRODUCTION

Since Romanian viticulture has very few varieties destined to the production of raisins, it is highly recommended that new varieties of this group should be extended to culture and more clones should be selected.

A comparative study over 3 years has been carried out in the experimental lots of INCDBH Ștefănești on the main varieties apirens . A special attention has been drawn by the Canner variety, the variety apiren with medium ripening.

In order to present the main qualities of this variety, it has been compared to the Perlette variety, cultivated and extended on Romanian plantations.

The study has been effectuated over a period of 3 years (2008-2010) and consisted in the ampelographic, agrobiological and technological determinations of the variety as compared to the Perlette variety.

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## 2. MATERIAL AND METHOD

During 2008-2010 researches have been carried out on certain table and raisin grapes, varieties with valuable agrobiological properties which can meet the requirements of the market .

The varieties are on fruition in an ampelographic collection at I.N.C.D.B.H.Ștefănești. They were grafted on the parent stock Kober 5 BB and planted at the distance of 2,5m between rows and 0,9 m on the row. The grapevines were oriented according to the semi tall Guyot stems.

The pedo-climatic conditions are specific to the Ștefănești vineyard. The experimental plot has been placed on an umber argillo-illuvial soil, having a clayey to clayey-argillaceous structure in the first 60-80 cm, and a sandy structure in depth .The structure of the soil at the surface has an acid reaction (5,6), the topsoil is of 1,82 and decreases in depth. The potassium element has appropriate values on the A horizon, at the depth of 0-20 cm.

The meteorological data have been extracted from the specific databases of the Ștefănești Institute, collected during 2008 - 2010 (3 years). Climatically, the territory of the Institute belongs to the

moderate warm-semi humid II-nd zone which includes the area characterized by mean annual temperatures between 8 –10,5°C, solar radiation of 114 -128 Kcal / cm<sup>2</sup>, a sum of temperatures higher than 0°C between 3400 - 4100°C, higher than 10°C between 2800 - 3500°C and superior to 10°C (effective) of 1100 -1600°C. The zone is also characterized by annual mean rainfall ranging from 450 -700 mm.

Observations and determinations have been effectuated over the resistance to cold during winter, the vigour of the grapevines, the development of the main phenophases, the duration of the vegetation period, and the absolute and relative fertility coefficients, the production indicators, the quality and quantity of the grape yield have been calculated, too.

### 3. RESULTS AND DISCUSSIONS

**Morphological characters:** the adult *leaf* is big, pentagonal, with large teeth, glabrous. *The grape* is big, branchy, lax. *The grape* has a medium size and elliptical form, yellow-greenish in colour, rubiginous on the sunny side. The core is pulpy, crisp and with rudiments of seeds.

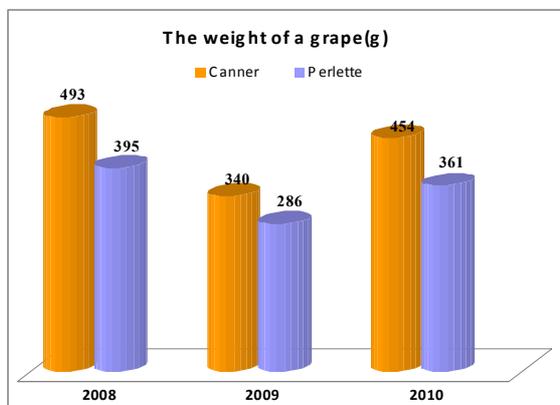
**Agrobiological and technological characteristics:**

The variety falls in the group with great growth vigour. It has a medium tolerance to low temperatures during winter at mildew. It matures in phase IV.

*The development of phenophases* is synchronized integrally by the influence of the climatic factors . Table no.1 shows the limits (the first and the last day of the phenophase).

*Table 1. Phenophases of the varieties (2008-2010)*

<i>Nr.</i>	<i>Variety</i>	<i>Dezmugurit</i>	<i>Blooming</i>	<i>Ripening</i>	<i>Full maturity</i>
1	<b>CANNER</b>	13.04 – 23.04	26.05- 17.06	20.07-28.07	16.08 – 09.09
2	<b>PERLETTE</b>	09.04 - 18.04	24.05 – 08.06	15.07-30.07	05.08 - 28.08



*Figure 1. The weight of a grape*

The value of the viability percentage of the shoots demonstrated that Canner variety has a medium resistance to cold which is peculiar to varieties apyrens. The two varieties presented over 75% viable eyeholes.

As regards the weight of 100 grapes, the differences are appreciable, ranging between 340-493 g at the Canner variety as compared to the witness Perlette variety 286-395g. It can be noted that the analyzed variety has the weight of the grape included between 298 – 498 gr. During favourable years for viticulture, the grape of this variety exceeds 7 gr., a value rarely obtained at the apyrene varieties.

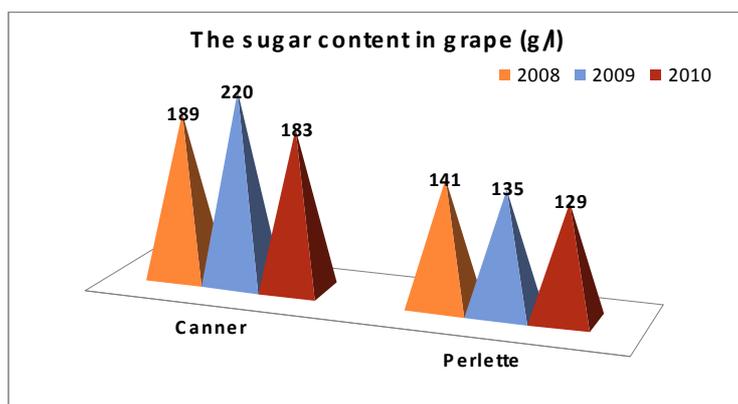


Figure 2. The sugar content in grape

Other elements contributed to the qualitative features of this variety: the weight of the bunch (493g) and of the grape( 4g) which beat the witness with 100g and respectively 1,5g.

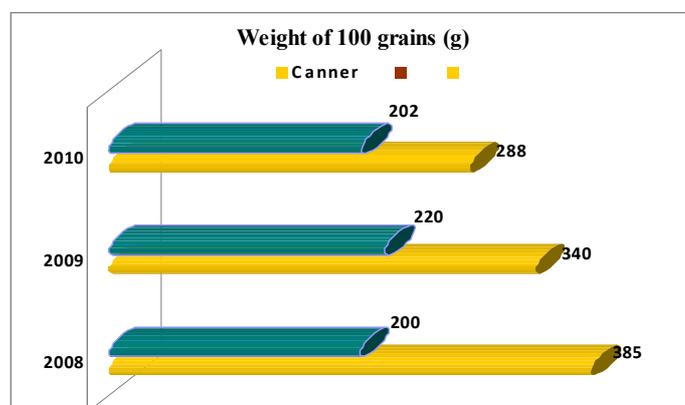


Figure 3. Weight of 100 grains

As for the content of sugars in the wine pressing, this is typical for the groups of jam grapes, with medium maturation. Greater accumulation of sugars can be noted in 2009 – 220 gr/l at the *Canner* variety and a constant of this element as regards the *Perlette* variety of 129 gr/l. The acidity of the wine pressing has been very high during 2008 in case of the *Canner* variety (4,1 g/l H<sub>2</sub>SO<sub>4</sub>), and lower during 2009 (3,25 g/l H<sub>2</sub>SO<sub>4</sub>).



Figure 4 Canner variety

#### **4. CONCLUSIONS**

1. Under the climatic conditions of the viticultural centre Ștefănești-Argeș, the variety apiren Canner had a good comportment, distinguishing through the size of the bunch and of the grape.
2. The high accumulation of sugars recommend it, besides apiren, in the category of the table and jam varieties, being able to replace other varieties of the same type.
3. The variety should be used in hybrid combinations with a view to create new varieties.

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