

A NEW CLONAL SELECTION FOR TABLE GRAPES MUSCAT D'ADDA 22St.

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The clonal selection presents a very important mission for the production and grape quality. It represents another more advanced step of selection works, because it contributes to a radical improvement of existing varieties. It comprises in choosing and multiplying the best vegetative grapevine issue, from the most valuable grapevines. (Neagu M.I.). Many varieties spread in culture are devoid of economic value, while others degenerate along with growth in heterogeneous populations, making the value of vineyard, established without taking measures to apply the selection to decrease gradually. Increasing the biological potential of vinifera varieties in culture and expansion of valuable grapevines can be made through clonal selection. Through the work of clonal selection of the vinegrapes at INCDBH Ștefănești it has been obtained a new selection of the Muscat d'Adda variety, thus contributing to the improvement of grape varieties for mass consumption. The clonal elite Mt. d'Adda Șt 22. was approved in 2009, being qualitatively higher to the selected variety. In the work of clonal selection that started at Ștefănești in 1996 it was used a new scheme that included 3 major parts: mass positive selection and choosing of clonal elites from the mother plantation followed by their rapid growth; Comparative study of elites in terms of potential productivity, the quality of grapes, testing plant breeding clones performing their ISTIS entry.

Key words: *clonal elite, clonal selection, fertility coefficients*

There are now in culture many varieties of grapes free of economic importance or which have degenerated once with the growth in heterogeneous populations, leading to the decreasing of the vineyards value.

The increase of the biological potential of Vinifera varieties and the extending in culture of valuable grapevines can be conducted using clonal selection.

Through clonal selection of grapes at INCDBH Ștefănești, a new selection of Muscat d'Adda variety was obtained, thus contributing to the enrichment of varietal assortment for the production of mass consumption grapes. The clonal elite Mt. d'Adda 22 Șt. was approved in 2009, being the second clonal elite for mass consumption grapes that demonstrates that the old varieties are still valuable if submitted to clonal selection.

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As a result of clonal selection at INCHBH Ștefănești, 12 representative clonal selection of wine varieties cultivated in Romania were obtained.

MATERIAL AND METHOD

Identification, selection and marking of elites have been conducted in plantations over 20 years old, with an appropriate phytosanitary condition.

Choosing elites was done based on recommended criteria: phytosanitary condition, vigor of growth, grapes quality and their production.

To compare the performance of elected elites to the population used as witness the variety Mt. d'Adda. In the third year of selection the grapevines that did not maintain the characteristics of quality and production were eliminated.

Parallel with the study of elites in parent planting it was conducted the multiplying of the the best ones, by grafting and cuttings for the establishment of plantations and the comparative test.

Rootstock used for grafting was Kobber 5BB, and the planting distances were 2.5 m / frame and 0.9 m / row (4000but/ha).

The grapevines were driven into Guyot on semistems with the support of espaliers with 5 wires. Coluviale soil is brown, sandy-clay medium supplied with phosphorus and potassium, low-carbonated, low acid pH (6,2-6,4).

In the work of clonal selection, started in 1996 there was used a scheme which includes the following steps:

Positive mass selection in the planting selection of the variety Mt. d'Adda;

- Clonal selection of elites and their rapid growth;
- Comparative study of clones (25 logs / clone), in terms of potential productivity, quality of grapes and wines, testing plant;
- Approval and introduction of elite clonal material in the production schedule vineyard Certificate.

RESULTS AND DISCUSSIONS

All the recorded data following the observations and determinations of the agrobiological and technological traits is the result the climate conditions from 2006-2008.

Climatic conditions of the years studied in particular is characterized by fluid diffictar regime, especially in critical periods of growth and maturation of the grapes by large temperature differences between summer and winter.

Agrobiological and technological characteristics of elite clonal Mt. 22 d'Adda Șt witness variety compared to the variety Mt. d'Adda are shown in Figures 1,2,3,4. and represents the average three years (2006-2008).

Leading fertility elite clonal presented (74%) can be said that it is an elite with a high fertility and loss of germ were reduced during winter.

Fertility rates (absolute and relative-Fig. 1) were superior to the witness variety, ranging between values of 1.48 - 0.85 compared with 1.31 - 0.79.

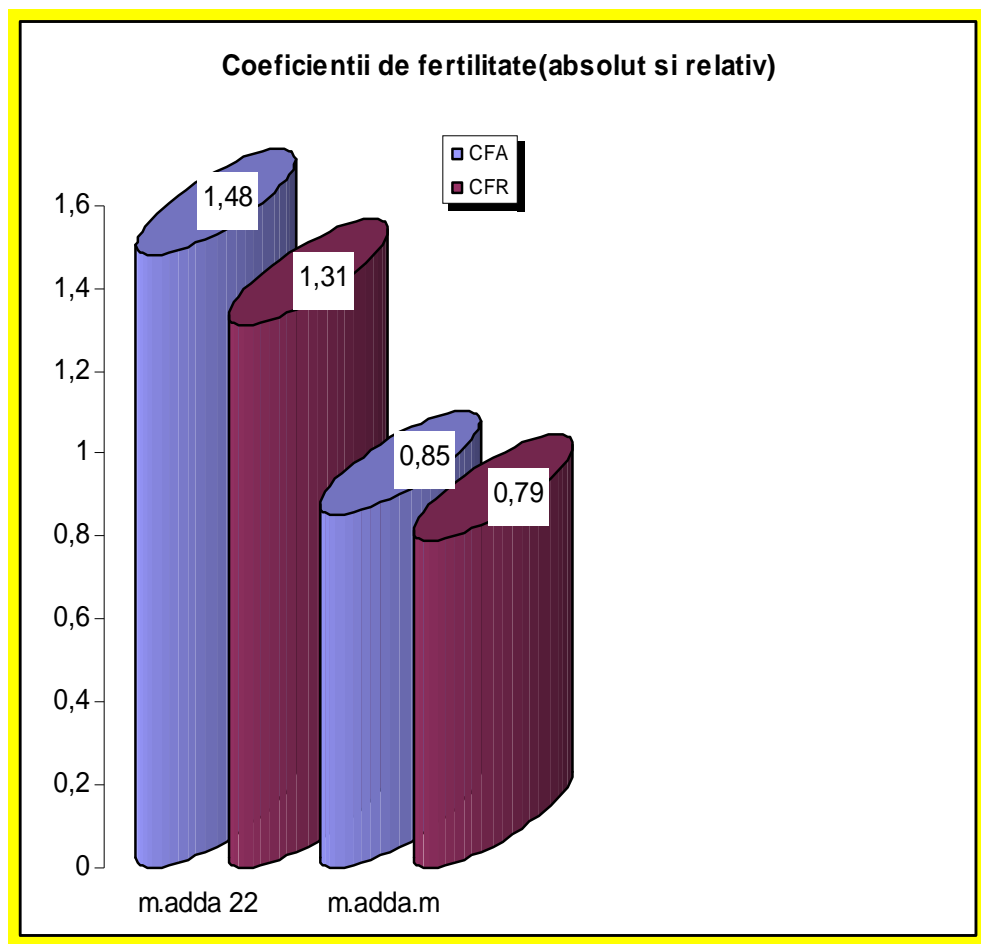


Figure 1 Fertility coeficents (absolute and relative)

The production of grapes per hectare blocks and top is also a witness, 22 Șt elite. recorded an average 5.4 kg / but. compared to the variety concerned, average 4.9 kg / but.Indices of productivity (*Fig. 2*) had average values of 438 (absolute) and 252 (relative). One of the criteria that was selected this clone was high production capacity.

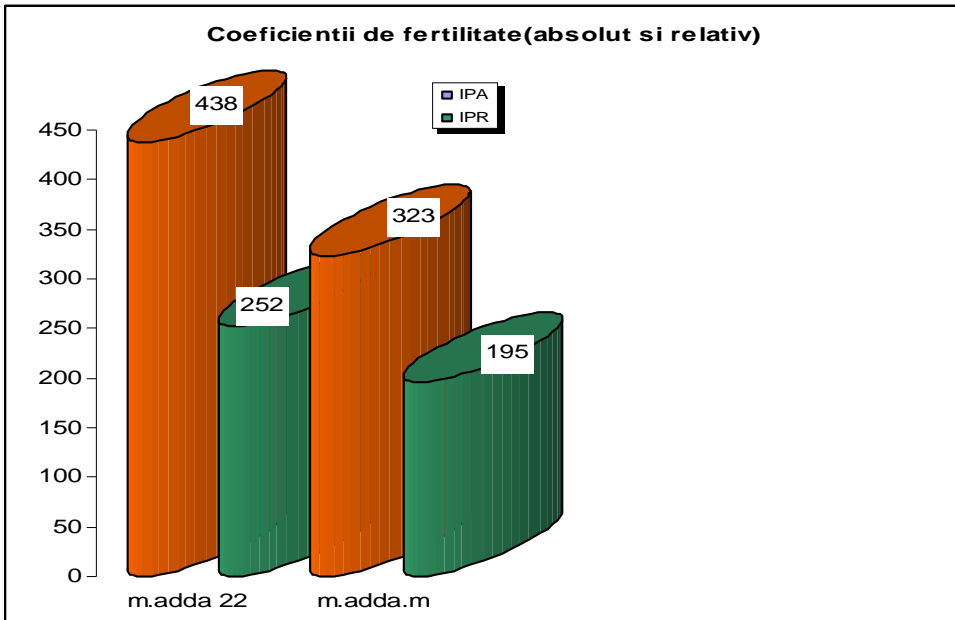


Figure 2 **Fertility coefficients (absolute and relative)**

To acquire high productivity of this clone technological elements have participated too (3ani Media): bunch of grapes weight (296g) and grape weight (100-466g grain) which competed with witness variety 50g and 70g (*figure 3*). There is Mt. d'Adda Șt 22. elite clone that came out through the grapes by size and especially through the grape weight.

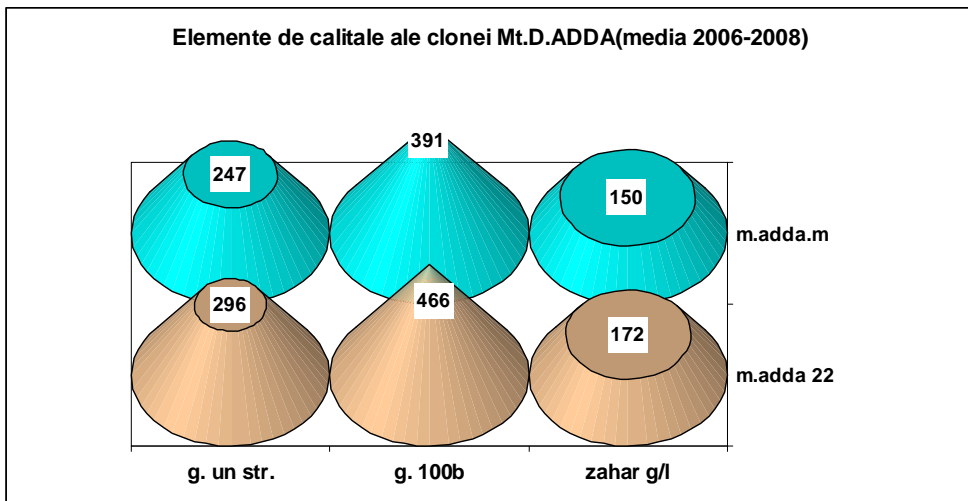


Figure 3 **Mt. D.ADDA's quality elements (average 2006 – 2008)**



Figure 4 Mt. d'Adda 22 Șt

CONCLUSIONS

Clonal selection Mt. d'Adda Șt 22. variety obtained from Mt. d'Adda proved superior qualitative and quantitative variety.

Approval by elite clonal Mt. d'Adda Șt Șt 22. try placing the culture of the most valuable selection of varieties with the old times and have lost some of the characteristics of quality.

Corelând the production quality in the field compared, that the selection and has maintained the variety, but especially bobului size and the uniformity and enhanced flavor of muscat.

It recommends expanding the production of elite clonal Mt. d'Adda Șt 22.

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