

THE PREMULTIPLICATION NUCLEUS - ROLE IN MAINTAINING THE VALUE OF THE TECHNICAL MATERIAL PROPAGATING WINE

Adriana Costescu*, I. Tița*

*National Research and Development Institute for Biotechnology in Horticulture, Stefanesti
E-mail: cosadriana@yahoo.com

Abstract

The strategy of developing the viticultural sector implies the restructuring of the national nursery system, as a result of implementing the European legislation, namely by placing the premultiplication nucleus at the head of the viticultural channel as a guarantee of ensuring the biological traceability and retraceability of the certified propagation material. Also, in the nucleus hothouse, the ameliorator transfers the results of clone selection, sanitary and creation of new genotypes activity which can be finalized by homologation. These stipulations which should be controlled and respected during the maintenance period with a view to prevent the biological degradation and the reinfection with pathogens of the propagating material, are obligatory during premultiplication and transfer period in the nursery.

Keywords: initial propagating material, premultiplication nucleus, biological category, the ameliorator's material.

1. INTRODUCTION

The setting up of the viticultural premultiplication nucleus appeared as a necessity of implementing the administration of the propagating material from the biological category Initial Propagating Material. The activity of the ameliorator who performs clone selection and sanitary activities of the vine can be finalized with the homologation of different clones only after they have been transferred in the nucleus hothouse.

The transfer of the selected material, achieved by public funds, can be performed only in a public structure which can guarantee a fair distribution of the material to the users according to necessities or to national or local programs.

2. MATERIAL AND METHOD

The biological material transferred in the Premultiplication nucleus is produced by the ameliorator and transferred through a Guarantee certificate of authenticity. The maintenance method is that of a double protection imposed by internal and international legislation.

3. RESULTS AND DISCUSSIONS

The ameliorators must establish a certain structure (organization statute and an appropriate technical and material support), which would have the ability to multiply the clones to be homologated. This structure must contain elements of both state and private sector, in order to ensure a correct repartition and distribution with all the administration issues concerning the propagation material, according to the current legislation and which would respect the zone of the varieties and clones (Polidory, 2004).

Legally, the premultiplication nucleus, stands as a legal connection, on a basis of firm agreements, between the Ameliorator and the transfer of his creations in production (new varieties or valuable selected clones).

Between the role of producing the Initial propagating material and that of ensuring the biological maintenance, of maintaining a direct contact between the ministry and the nurseries, the role connected to the research and production work is more important, as it performs the transfer of innovations in the large wine-growing and wine-making production permanently (Polidory, 2004).

Another role results from the restructuring of the national nursery system imposed by the European legislation and by the development strategy of the wine-making sector which places the Premultiplication nucleus at the head of the viticultural system, as a guarantee of ensuring the biological traceability of the certified propagation material (Tita I., 2004).

A problem of a general nature is that of the necessity of producing large quantities of material from the biological category Base in future, with a view to eliminate the material Standard from the market.

The premultiplication nucleus ensure the initial phyto-sanitary status of the material maintained under safe conditions which would prevent both technological and biological degradation, but also the reinfection with phyto-sanitary quarantine pathogens. These stipulations must be controlled and respected, during the maintenance period as well as during premultiplication and transfer in the “mother vineyard”.

The Initial Material must be propagated under the ameliorator’s responsibility but, by traditional methods, the obtaining of a large quantity of material necessary to set up “mother vineyard” would spread over more than 4-5 years. For that, taking into consideration specific culture conditions, in vitro multiplication has been authorized, which can achieve a large number of plants without degrading the biological material (repeated vegetative multiplication which is not associated with growing maintains the biological category over the whole multiplication period) (Boudron, 1995, Walter, 1995).

In order to underline the role of the premultiplication nucleus the following issues must be solved:

- to ensure the certification of the whole quantity of the propagating material in an accepted viticultural system which, according to certain stipulations of the agreement Ministry-Premultiplication-nurseries- nucleus, would settle a price for the Base material, including also the value of the selected clones and would bring certain benefits to the ameliorator. This problem must be regulated either by a due system or by a subvention of the high category biological material;

- the local interest varieties (being limited to one area) such as Busuioacă, Braghină, Crâmpoșie, Frâncușă, Furmint etc. do not have available clones and , by rapid multiplication, can produce what Enzo Polidori calls „genetical erosion” (deliberate restriction of genetic variability which ensures the biodiversity of some varieties), which must be avoided;

- the dissemination of information, through all available means, in order to coordinate the activity of the premultiplication nucleus with that of the wine-growing and wine-making associations.

4. CONCLUSIONS

1. The new created variety and the selected clone must reflect the invested value and the ameliorator’s activity and must be valorized as a brand.

2. The maintenance and the premultiplication of the initial propagating material will develop under the direct responsibility of the Ameliorator and/or the Maintainer.

3. The initial propagating material from the Premultiplication nucleus and the check plots represent an important part of the national genetic patrimony and can be used either as a source of germoplasm in the amelioration activities, or as a propagating material destined to the setting up of the “mother vineyard”.

4. By its organization and functioning, The Premultiplication nucleus has a decisive role in the national system in the production and the certification of the whole quantity of grapevine propagating material from Romania.

5. REFERENCES

- Fournioux J. C., Grenan S., Kindt S. (1998) Comportement en serre de varietees de vigne (Vitis Vinifera L) issues de microbatures multiplies “in vitro” selon differentes modalites. Buletin OIV, vol. 71, nr.804, pag. 6-19.
- Polidori E. (2004) Il ruolo dei nuclei di premoltiplicazione nel vivaismo viticolo convegno nazionale „La vite: Aspettitecnic”

- Tița I. (2004) Producerea materialului săditor viticol din categorii biologice superioare. Ed. TIPNASTE, Pitești.
- Vișoiu Emilia, Buciumeanu Elena, Tița I., Popescu Carmen, Bejan Carmen, Zaharia Floarea, Popa Camelia, Giosanu T., Bădițescu, D., Giosanu Maria, Teodorescu Al. (2000) Colecția națională de germoplasmă din categorii superioare obținute prin tehnologia eliminării virusurilor la S.C.P.V.V. Ștefănești. Lucrări Științifice USAMV București - Horticultură pag. 223-225.
- Walter B. (1995). La qualita genetica e sanitaria del materiale di propagazione. Vignevi