

BIOLOGICAL INDEXING IN GREENHOUSE WITH THE OF MICROPROPAGATED MATERIAL OF GENUS *VITIS*

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During Clonal selection the control of viral disease presence is of fundamental importance. The effectiveness of sanitary selection depends on the efficiency of viral individualization methods used. Serological and molecular methods constitute satisfactory system for the identification of pathogenic agents, but they don't replace bioassay techniques for the diagnosis of virus-similar diseases not yet characterized. The traditional and officially recognized procedure consists in grafting the material to be tested on different viral diseases indicator plants. The use of woody material requirest at least two years of observations in the field.

Recently bioassay methods have been proposed for the greenhouse: green-grafting and micrografting *in vitro*. Such techniques permit the expression of symptoms in a few months, but they have the disadvantage of requiring specific environmental conditions and micrografting requires the availability of micropropagated test plants, with a notable increase of work involved.

The technique described, which requires further verification, proposes a simpler and faster alternative for screening for the presence of viruses of grapevine. This method uses as graft material an uninodal cutting, a leaf with petiole or a secondary shoot. These are manually grafted into predisposed micropropagated stock which is already acclimated and has a well developed root system. At least two buds are left for the development of possible symptoms; the graft union is protected with a strip of parafilm. This system has the advantage of using test material during the whole growing season, with the possibility of always having the right size material with respect to the indicator plant.

Results were compared with the traditional woody assay which tested for the presence of vein necrosis on a clone of rootstock 101-14 C, with 110 Richter as the indicator plant. Even though trials were carried out during the summer, considered to be the limit for assays, and without the possibility of having a constant temperature in the greenhouse, preliminary results have been encouraging. Almost all of the material remained green for at least seven days after being grafted, guaranteeing the minimum conditions necessary for inoculation. About forty days after grafting the first symptoms were visible on the upper and lower surfaces of median and basal leaves of the indicator plant. Best results were attained using uninodal shoots of infected vines. Leaves and secondary shoots were less effective.

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