THE PRODUCTION OF GRAPEVINE CERTIFIED PLANTING MATERIAL IN THE UKRAINE

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In Ukraine, the researches of clonal selection realized at Tairov Research Institute of Viticulture and Enology (Odessa) and at Institute of Viticulture and Enology "Magaratch" (Yalta, Crimea). According to the "Technology of Production the Certified Planting Matrisl of Fruit-trees, berry cultures and grapevine" (Moscow, 1989) (1) the grapevine clones should be free from GFLV, GLRaV 1, GLRaV 3, GFkV, Rugose wood complex and from crown gall disease.

For the detection and the identification of viruses we used ELISA-test and grafting method. The indicator varieties are the next: Cabernet Franc, *Vitis rupestris* St.George and Kober 5BB). For ELISA-test we used the sets produced by Agritest (Italy). During the last two years we tested the clones not only produced at the Ukraine but also introduced to the Ukraine from France and Moldova.

As a result of our research it was established that on the South of the Ukraine the most distributed viruses are: GFLV (13%), GLRaV 3 (13%) and GFkV(80%). In Crimea the most prevalent viruses are: GLRaV 1 (50%), GFLV (3%), GLRaV 3 (3%) and GFkV (6%). GLRaV 1 and GLRaV 3 (100%), GFLV (80%) and GFkV (12%) infected the grapevine plants introduced from Moldova. Clones of Cabernet Sauvignon, Chardonnay, Pinot noir, Pinot menje cultivars for France were free from virus infection. However, the Cabernet Sauvignon from France planted at 2000 appeared to be infected by crown gall disease (24%).

For testing the grapevine plants on the presence of *Agrobacterium vitis* we applied the Lechoczky method (2) and Roy and Sasser semi-selective media (3). Colonies with characteristic morphology we replanted on potato dextrose agar snd checked the bacteria culture by the ELISA-test and polyclonal antiserum that was prepared to some *A.vitis* strains. The pathogenicity test was provided by using test-plants of tomatoes, disks of carrots and green grapevine cuttings. For further dividing the pathogenic from non-pathogenic strains we used PCR method (ipt primers)(1). For the PCR we used 2 days culture bacteria growing on potato agar media. We also studied the bleeding sap from infected plants. The results have shown that 24, 1% of visually asymptomatic Cabernet Sauvignon plants are infected by *A.vitis* (Fig.1). When studying the bleeding sap from infected plants by PCR we did not find *A.vitis*. This result corresponds with Szegedi's and Botka's data (4).

In connection with distribution of crown gall disease to the Ukrainian vineyards, the program of grapevine clones certification should be extended and includes not only the clones free from grapevine viruses but also free from crown gall disease (5).

References

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