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## **POPULATIONS OF CROWN GALL OF GRAPE AGENTS AND VIRUSES IN AGROCOENOSES OF ODESA REGION**

Crown gall of grape causes great losses to Ukrainian grapegrowing. During 2002-2007 years the populations of crown gall agents (*Rhizobium vitis* (Ophel and Kerr) Young et al. and in rare cases – *Rh. radiobacter* (Beijerinck and van Delden) Young et al. were studied on vineyards of Odesa region. Standard microbiological methods, test-plant inoculation, PCR and statistical methods were used. Population density in wooden grape cuttings varied from  $2,0 \cdot 10$  to  $5,0 \cdot 10^3$  CFU depending on a plant. Cells quantity of these rhizobia species in rhizosphere also varied from  $5,1 \cdot 10$  to  $8,0 \cdot 10^4$  CFU/g. Rhizobia with virulence genes were revealed both in populations with high density and populations with small amount of cells. On susceptible cultivars pathogenic rhizobia strains were revealed much more often than on resistant grape cultivars.

The most dangerous grapevine viruses are the next: grapevine fanleaf virus, grapevine leafroll associated viruses 1-7, grapevine fleck virus, grapevine virus A, grapevine virus B, Rupestris stem pitting virus. Using IFA, RT-PCR and statistical methods we have investigated the spread of these viruses on vineyards and in planting material. Regular and certificated planting materials have been tested. Tests showed the presence of grapevine fleck virus in 24,0% of samples. Other viruses have not been revealed.

Present investigations allowed to select plots, vineyards and planting material free from crown gall agents and viruses which can be used for vegetative propagation of grapevine.