

POSSIBILITIES FOR MODELLING OF ENVIRONMENT MULTIPLE STOCHASTIC IMPACTS ON PLANT-MICROBIAL SYSTEMS

N. I. Vorobyov¹, V. N. Pishchik², N. A. Provorov¹, O. V. Sviridova¹

¹*Research Institute for Agricultural Microbiology,
3 Shosse Podbelsky, St. Petersburg, Pushkin, 196608, Russia*

E-mail: vorobyov@arriam.spb.ru

²*Agrophysical Research Institute, 14 Grazhdansky pr., St. Petersburg, 195220, Russia*

The possibilities to use the Gauss-vectors systems, which contain pseudorandom numbers arrays, for imitation of multiple stochastic environmental impacts on the microbe–plant systems are considered in the paper. It was proposed to use the original Graph-analysis of correlation matrix coefficients of environmental factors to generate the Gauss-vectors systems on the computer. Application of the Gauss-vectors systems in the virtual mathematical Models of the microbe–plant systems allows studying statistical characteristics of these systems in computer experiments.

Keywords: pseudorandom numbers array of a Gauss-vector, the Graph of direct and indirect stochastic relations, multiplicative property of a correlation matrix coefficients of environmental factors.