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Influence of the biopreparation "phytocatena" on the fungi *Fusarium* of tomato root and rhizosphere

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Study of the biopreparation influence on pathogens, which causes the disease of soil micro-flora and plant, is one of the main issues for environmental recovery and ecologically clean product. The purpose of the research was to study the influence of the pathogen *Fusarium* causing the disease of tomato root and the study of the influence of biopreparation "Phytocatena" (*Pseudomonas fluorenscens)*, produced by the Plant Biological protection Center in Georgia, on the pathogen. The tomato variety "Slivka" has been studied for the experiment. Microbiological analysis was conducted by M. Wozniakovskaya's method. The cultivation of microbes was occurred in potato, Chapek, Suslo's food areas, with various suspensions (1:10, 1:100, 1:1000). The total quantity of pathogenic fungi was estimated by thousands of 1 gram on dry ground. As a result of research, the total quantity of pathogenic fungi in the untreatment soil was 400 thousand. The dominant pathogen was *Fusarium* (205 thousand). Soil and tomato root system was processed by the 2% solution of bio-preparation "Phytocatena" before the planting, and then by 2-4 times with 15-20 days interval. It has been determined, that the total quantity of pathogenic fungi in untreatment soil was 261 thousand (140 thousand on plant's roots,121 thousand in the rhizosphere). The total quantity of *Fusarium* was 120 thousand (65 thousand on plant's roots, 55 thousand in rhizosphere). From samples collected in the phase of tomato blossom, it has been found, that after the treat by the biopreparation "Phytocatena", the total quantity of Fusarium was significantly reduced-20 thousand (11 thousand on plant's roots, 9 thousand in the rhizosphere). The total quantity of pathogenic fungi was also reduced by 49 thousand (25 thousand on the plant's root, 24,000 in the rhizosphere).

Recent Publications

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Biography

Guliko Dvali has completed her PhD in Microbiology from Ivane Javajishvili Tbilisi State University. She is the Head of mcrobilogy research group in Georgian Technical University, Biotechnology Center. She has published more than 20 papers in reputed journals and has been a great experience in plant miocrobiology field.

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