Isolation and characterisation of several bacterial strains present in the rhizosphere of certain crop plants

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The study of the rhizosphere of crop plants is extremely significant from the practical point of view. Rhizosphere is the zone surrounding the roots of plants where extremely complex relations develop between plants and microorganisms. The purpose of our investigation is counting, isolation and morphological characterisation of the bacteria present in the rhizosphere of corn plants (Zea mays). Our study performed on two samples of soil resulted in the isolation of 20 bacterial strains from the rhisosphere of corn plants (Zea mays). Under microscopic examination a number of 7 strains represented by Gram-negative, non spore-forming, small rods, 4 strains represented by Gram-positive, non spore-forming coccobaccili, 3 by Gram-positive, spore-forming, big rods, 2 by Gram-positive, non spore-forming, small rods, 2 by Gram-positive cocci and 2 by mycellian, non-septate hyphae of actinomycetes were described. A ratio R/S = 4 was found.