

Behavior of *Xanthomonas fragariae* Dw in an inorganic medium enriched with N, P, or K

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Abstract

In this study, the behavior of *Xanthomonas fragariae*, angular leaf spot of strawberry agent, was followed in the AB medium, enriched with nitrogen, phosphorus or with potassium, and in the soil of the Mamora forest with 14% to 28% of humidity in function of these fertilizer elements. The obtained results have shown that Na₂HPO₄ and NH₄Cl, used, 0.01 and 0.05 mol/l, respectively as a phosphorus and nitrogen source, have a significant effect on the survival of *Xanthomonas fragariae*. By contrast, KCl, used as a source of Potassium, has no significant effect on the number of culturable cells.

The three sources used NPK, 14% and 28% showed a great influence on the number of culturable cells of *Xanthomonas fragariae*, either increasing or decreasing. Potassium, at 28 to 14% of humidity, inhibited the rate growth of *Xanthomonas*, while the phosphorus and nitrogen stimulated its growth, greater than 28% of humidity than 14%. Similarly the bacterial growth was not affected during the incorporation of NP different concentrations in the soil of Mamora.

Keywords: *Xanthomonas fragariae*, growth, fertilization, Nitrogen-Phosphorus-Potassium, soil, humidity.

Recent publications:

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Biography

Dr. Djassinra Tormal. I received my Ph.D in sciences of environment from university Ibn Tofail in 2016. After completion of my degree, I was appointed as a faculty fellow in the Department of Health and environment at the University of Ibn To fail. I served as the Head of Study of antibacterial and antifungal activities of two medecinal plants growing wild in the Gharb region (*Chenopodium ambrosioides* l and *Rosmarinus officinalis* l from 2014-2016. My interests are focused on the use of microbiology to study the antibacterial and antioxidant effect of medicinal plant on Antibiotic Resistant Strains in 2016. Chemistry agro resources, polymers and process engineering.

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