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USE OF FERTIGATION SYSTEMS FOR ENVIRONMENTAL SAFETY OF *Solanaceae* SPECIES UNDER PROTECTED SPACES

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Abstract

The degradation of agricultural ecosystems began with the application of intensive agriculture, which cannot be separated from the problems related to it. In this context, it is more important than ever to dismiss any polluting technology, in order to defend the healthy agriculture concept and to model life based on the existing natural cycles. The aim of study was to achieve an equally balanced eco-system, based on self-regulation instead of major human intervention. To achieve this goal, at the University of Agricultural Sciences and Veterinary Medicine in Iasi it was organized an experiment in randomized blocks, with three repetitions on two species in tunnels, using different methods of irrigation and fertilization with average impact. The results obtained highlight that fertigation leads to sustainable yields because of the controllable application of water and nutrients, with direct long term positive implications in reducing soil compaction and salinization. The use of microorganisms-based fertilizers leads to significantly increased yields and, on the long term, enrich soil composition.

Key words: fertilization, horticulture, irrigation, sustainable system, unpolluted soil

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