



Water microbiological indicators of a paddy rice system

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Abstract

The demand of society for the preservation of water resources has led to great advances in technology and agricultural management to limit their negative impacts, favours socioeconomic development and promote the conservation of natural resources. This communication refers to a case study of the rice-growing system in the Lis Valley, which considers the monitoring of the physical-chemical and microbiological quality of water supply and underground and surface drainage in the farmers' fields, representative of the irrigation conditions and cultivation of the Lis Valley. Results will be obtained on the microbial quality indicators of irrigation water and rice drainage, which include counts of total coliforms, faecal coliforms, faecal enterococci and ampicillin-resistant Enterobacteriaceae performed according to analytical reference methods. The results in a time series of various crop campaigns will allow assessing the hypotheses of risk of microbiological contamination for farmers and the environment and provide information to support water management in this crop, to mitigate local problems.

Keywords: Rice irrigation, Microbiological impacts, coliforms, enterococci, Enterobacteriaceae, MEDWATERICE
