The influence on soil and ground water quality by organic compounds use in orchards

ROBU Brindusa, BULGARIU Laura - Universitatea Tehnica "Gh. Asachi" Iasi
ROBU E. - S.C. Agrana Juice Vaslui Romania S.R.L.
MACOVEANU M. - Universitatea Tehnica "Gh. Asachi" Iasi

The environmental pollution problems resulted from organic compounds (e.g. pesticides, fertilizers) and their residues in food have become important research topics, since healthy food is urgently need, along with improved living standards. Thus, more attention is now being paid to 'green' food and organic food. Also, the environmental components soil and ground water are directly exposed to uses of organic compounds in orchards and not only. This paper presents a case study from Vaslui County, Romania where apples orchards are situated. Due to the mild climate and sufficient rainfall, substances are quickly transferred and transformed in this region. Thus, the quality of environmental components soil and groundwater could be highly influenced by the uses of organic compounds. The purpose of this paper was to analyze soil and ground water samples from orchards area and observe if the organic compounds can influence the environmental components, directly exposed to uses of chemicals. The results showed that there is a high impact on ground water and the quality of this environmental component could be influenced by organic compounds uses, while the impact induced on soil is classified being at a medium/low level. The impact induced on ground water could be an effect of synergic and cumulative pollution and has to be controlled by pollution prevention measures.