



Rural life and presence of agrochemicals in water for human consumption

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Colonia La Suiza was founded in 1952 within the framework of the agrarian policy of the second Peron's government. It is situated on an area of 7,185 hectares. At present, 74.6% of the 67 original families remain. Current families constitute the second generation. The average surface property varies between 120 and 150 hectares. The production systems are mostly mixed agricultural-livestock with increasing predominance of agriculture from the 80s. Soil and water are important capital for colonist families; however the process of agriculturización can cause, even in these families, a deterioration of their natural resources. This paper studies the state of common goods such as soil and water in a colony of the Loberia-Buenos Aires province-Argentina, within the framework of the analysis of the different logics and productive practices. The soils of exclusive agricultural use, analyzed showed an average concentration of glyphosate + AMPA of 1398 $\mu\text{g Kg}^{-1}$ while in the floors of livestock-agricultural use was 58 $\mu\text{g Kg}^{-1}$. Glyphosate is the most used pesticide in Argentina and this preliminary result indicates the importance of maintaining agricultural-livestock production systems to avoid high loads of this molecule in the environment. On the other hand, 50% of groundwater for human consumption monitored has a concentration higher than the limit of 0.5 $\mu\text{g L}^{-1}$ for the sum of pesticide molecules analyzed. Residues of imidacloprid, metsulfuron methyl, atrazine, hydroxytriazine, desethyl atrazine, alachlor, metolachlor, acetochlor, glyphosate and AMPA were found. In addition, 62.5% of the water samples had a concentration higher than 10 mg L^{-1} of N-NO_3^- , although soybean-wheat or barley-soybean second crop sequences currently predominate using direct sowing with a level of sub-optimal nutrient replacement. We believe that the construction of logics that promote sustainable agriculture involves the discussion of the environmental dimension in the perspective of development, rethinking the issue of equity, environmental justice and income distribution.