Analysis of the quality of the water of consumption in a rural population of the province of Chaco (Argentina).

Yenith Bonilla (1), Silvina Arreghini (1), Felipe Lobert (2), Virginia Aparicio (3), Eduardo De Gerónimo (3), Roberto Serafini (1), Maria Susana Fortunato (4), Fabrizio de Alicia Iorio (1), Sonia Korol (4), and Alfredo Gallego (4)

(3) INTA, Agronomy, Balcarce, Argentina (aparicio.virginia@inta.gob.ar), (1) Cátedra Química Analítica, Departamento de Recursos Naturales y Ambiente, Facultad de Agronomía – UBA, (2) Fundación Huerta Niño, Programa Aguasanas, (4) Cátedra de Salud Pública e Higiene Ambiental. Facultad de Farmacia y Bioquímica – Universidad de Buenos Aires

The objective of this work was to establish the quality of water consumed by families living in Pampa del Infierno, taking into account chemical and biological parameters according to the Argentine food code (CAA) and the European Economic Community (CEE). The population has 44 families and 40 samples of drinking water were collected: 13 correspond to rainwater and 27 to groundwater. For rainwater samples, the concentration of pesticides showed 23% of the upper limit established by the EEC for the sum of molecules (0.5 µg / L), and 22% of the samples exceeded the limit established for the glyphosate concentration (0.1 µg / L). In the samples of groundwater, the concentration of dissolved total salts, sulphate and chloride exceeded the limits between 10 and 20%, for As 36% presented concentrations equal to or higher than the maximum limit according to the CAA; 23% exceeded the maximum concentration of pesticides according to the EEC. From the microbiological analysis it was observed that most of the samples were found contaminated.