We report on the results of an analytical investigation about the contamination on three officinal plants of Amazonian rain forest due to Persistent Organic Pollutants (POPs), like organochlorine pesticides and polychlorinated biphenyls (PCBs).

A portion of about 10 g for each vegetable sample was submitted to extraction procedure with hexane-acetone (1:1, v/v) solution by using soxhlet technique for 24h, following procedures by ISTISAN 99/28. The three extracts were analyzed by Gas Chromatography-Tandem Mass Spectrometry (GC-MS/MS) and Multi Reaction Monitoring (MRM) techniques (by using ion trap detector Varian Saturn 2200 system) after their purification by chromatography on celite column eluted with n-hexane (ISTISAN 99/25).

The obtained results show the presence of DDT and its metabolites, like DDD and DDE in the three analyzed samples and of hexachlorobenzene only in the "graviola" (Annona Muricata) - up to 2.328 µg/kg in the case of "balsamina". These concentration values are an indication of a plants contamination in trace due to the organochlorinated pesticides which come from an ubiquitary pollution and not from a direct use of these substances in the place of origin of the samples. Finally, concerning the PCBs determination, the analysis GC-MS/MS excludes their presence in all the three plants investigated: the concentration values are in this case lower than the detection limits of the method (0.003-0.013 µg/kg).