Abstract

The use of organic manures of different sources, like composts obtained from urban solids residuals (USR), in urban agriculture organoponics, is an alternative for low input food production. In order to use these materials, it is required the systematic evaluation of heavy metals (HM) content, because they can accumulate in soils and substrates altering their biological balance and affecting crop yields and animal health, including human health. It was evaluated the analytical methodology with highest accuracy and recovery for the determination of Cadmium (Cd), Lead (Pb) and Nickel (Ni) and it was used in the determination HM content in organic manures and substrates as well as their effect in the vegetables produced in organoponics at La Habana and Guantánamo. It was found that the compost produced from USR from rubbish dump not previously classified and the substrates elaborated with them, present HM content, specially Pb and Cd, over the maximum permissible limits (MPL),and must not be employed for food production, because these metals are traslocated to the edible organs of the cultivated vegetables.

Keywords

Heavy metals, organic manures, vegetables.