The returning of mineral contents and organic matter to the soil as litterfall is one of the most essential ecological process that contributes to the nutrient cycles and provides enough nutrients to plants for a healthy growth. The fallen leaves from urban forests of the cities of San Juan and Mendoza, Argentina are frequently collected especially during the autumn season with a loss of great quantity of litterfall every year. High amounts of nutrients and organic matter are exported from the urban ecosystem without completing the mineral nutrient cycle. The aim of this work is to evaluate the variation in foliar mineral and organic matter contents along seasons (spring, summer and autumn) for the two most abundant non-native species: *Morus alba* and *Platanus hispanica* located in the urban forests of the central-western part of Argentina, and the effect of the periodical leaf removal in urban areas. Differences in mineral and organic matter contents were found along the seasons. Foliar concentration losses follow the order of magnitude: N > Mg > P>K > Na. This research is a contribution to a more adequate understanding of the urban ecosystem patterns and dynamics, and it means to be helpful in the management and conservation practices of urban ecosystems.