

SWEDISH MEDICINAL PLANTS USED IN TRADITIONAL REMEDIES AND THE POTENTIAL USE IN THE IMPROVEMENT OF CONTAMINATED SOILS AND AQUATIC ENVIRONMENTS

Ulyana Muñoz Acuña¹

*¹⁾ Department of Chemistry and Biomedical Sciences, Linnaeus University,
Sweden*

Abstract

Plants provide food, medicine, textile, shelter, fuel, construction material and can also be used to decrease the levels of harmful contaminants in the environment. In response to heavy metals, plants increase the production of reactive oxygen species and thus the protective antioxidant capacity of the plant is enhanced. Antioxidants, such as phenolic compounds, are produced and act as chelators binding to heavy metals that then can be transported and stored in the vacuoles and in different plant tissue. Secondary plant metabolites, such as phenolic compounds, have previously been found in high concentrations in aromatic medicinal plants.

Early humans acquired the knowledge on how to use medicinal plants and humankind have since relied on plants for many different purposes. Here we present some of the local Swedish medicinal plants that might be suitable for phytoremediation; however, future evaluation both in lab-based experiments and field-based studies may be necessary in order to identify promising plant species that can be used as an alternative method to treat contaminated water and soil.

Keywords: Medicinal plants, Antioxidants, Phenolic compounds