

MINI CV PATRIZIA ZACCHEO – ENGLISH

Patrizia Zaccheo, researcher at the University of Milan (Italy), holds a MSc in Agricultural Science of the University of Milan (Italy) and a PhD in Agricultural Science, awarded by the same institution.

From 1979 to 1990 her research activity was focused the agronomic use of wastes (sewage sludge, compost and industrial byproducts), in particular on their effect on soil fertility and plant healthiness. Several studies have been conducted on heavy metals enrichment and changes in bioavailability in sludge amended soils; their researches focused on metal uptake and translocation in maize and ryegrass. This has led to fifteen publications on refereed journals and several talks in national and international congresses and workshops. In the same period Patrizia Zaccheo carried out laboratory experiments addressed to the study of the individual effect of cadmium and chromium on maize and oat growth, proton extrusion, potassium uptake and transmembrane electric potential. Particular attention has been devoted to the effect of composting wastes on nutrient and heavy metal release in soil, starting from 1988 and leading to twenty publications on scientific journals.

In the 1990s most of her work was related to the dynamic of organic residues by the isotope dilution method (^{15}N) and by spectroscopic analysis. In particular she carried out incubation experiments of soil amended with labeled plant materials, either dried and composted, in order to investigate organic matter degradation and changes in the soil N pools.

From 1995 she leads and participates as a researcher in projects on polluted sites in different parts of Italy (Lombardia, Veneto, Friuli Venezia Giulia), collaborating with agronomist and biologist for evaluating different phytoremediation strategies (phytoextraction, assisted phytoextraction, phytostabilization).

Her current studies are related to arsenic pollution in soil and water and to phytostabilization of mining tailings. Moreover she is conducting studies on the quality of growing media, by bioassays and chemical and spectroscopic analysis.

In 2002, at the Department of Plant Production she set up a laboratory for investigating the chemical, physical and biological properties of growing media.

In the last years she participated in the development of a new legislation on growing media, that has been adopted in 2008 and she is currently member of a working group of Epagma (European Peat and Growing Media Association) for the harmonization of national legislation on growing media, participating to several meetings in Brussels.

From 2000 she is Assistant Professor in Soil Chemistry, responsible for the following courses: Soil Chemistry (Bsc Agricultural Science and Technologies), Soil Fertility and Plant Nutrition (Bsc Agricultural Science and Technologies), Laboratory of Agricultural Chemistry – part 3: Growing Media (BSc Plant Production and Protection), Soil Chemistry (BSc Environmental Science).

Her expertise includes teaching, training courses for technicians, assisting students in their thesis and leading meetings.