The Study Case #2 – ReSoil®-Agro in Arnoldstein/Tulin, AUSTRIA

Information of site owner/site provider

- Arnoldstein cadastral Municipality, Austria
- Source of funding: Slovenian Research and Innovation Agency under Grant J4-8219

Objective

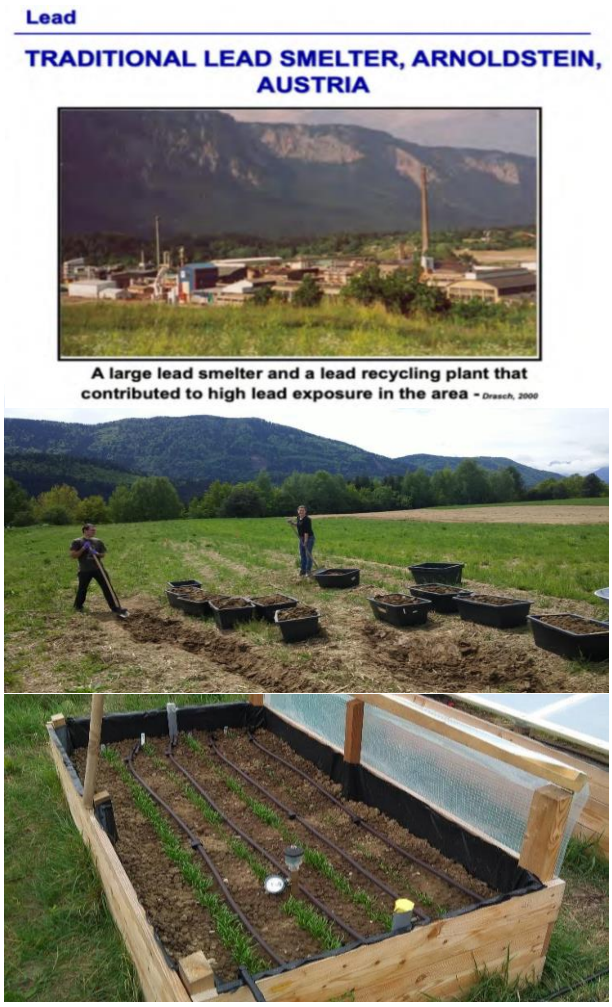
Production of safe vegetables on remediated soil

Contaminated site characterization

- Remediation of **acidic soil** contaminated with 800 mg kg^{-1} Pb and 4.5 mg kg^{-1} Cd
- pH: 5.9

Remediation results

- 75% Pb and 50% Cd were removed
- Soil microorganisms, mites, and collembolas were preserved
- Plants grow better on remediated soil
- Remediation reduced plant uptake of Pb and Cd by > 80%



Courtesy of Envit Ltd.

Site description

Lead mining and smelting for more than 300 years caused environmental accumulation of Pb, Zn and Cd. The extent of metal contamination in Arnoldstein, Austria is about 10 km^2, most of it in woody areas. Arable and grassland is affected in an area less than 1 km^2. The area used for housing and gardening in Arnoldstein and nearby Hohenturn is small (few ha) but highly contaminated.

ReSoil® REMEDIATION EFFICIENCY

Initial metal concentration

Pb	Cd	Zn
795 mg kg^{-1}	4.5 mg kg^{-1}	484 mg kg^{-1}

Reduction of metal concentration