

SGA



**13TH SGA BIENNIAL MEETING
NANCY – FRANCE
24-27 AUGUST 2015**

WORKSHOP 3

Agromining: From Soils to refined metal products

2 days - Post-conference - 28th to 29th of August 2015
Guillaume Echevarria guillaume.echevarria@univ-lorraine.fr
Jean Louis Morel – Marie-Odile Simonnot

Venue: Université de Lorraine, ENSIC-LRGP, 1 Rue Grandville, F-54000 Nancy

Duration: 2 days - 28th to 29th of August 2015

Leaders: Guillaume ECHEVARRIA, Université de Lorraine-INRA, LSE, Jean-Louis MOREL, Université de Lorraine-INRA, LSE, Marie-Odile SIMONNOT, Université de Lorraine-CNRS, LRGP.

Attendants: 15 - 30

Registration deadline: 31th of Mai 2015

Price: covers courses, lunch (28th and 29th of August 2015), break refreshments and documents)

SGA student member/non-member: 150€ / 200 €

SGA member /non-member: 300 € / 400 €

Agromining (a wider concept than Phytomining) is an emerging technology aimed at recovering metals from plants grown on low-grade ores, mining and industrial waste, or mineralized soils. It is based on domestication and culture of plants that possess the exceptional ability to take up metals with their roots (hyperaccumulators). The technology has expected outcomes in degraded land restoration and metal-rich waste treatment, thus providing an additional source of income to restoration projects.

The workshop is aimed at addressing key questions including: How can hyperaccumulators be used, from discovery to application, to improve the outcomes of mine site restoration? Where does the greatest potential for agromining lie? What are the new metallurgical pathways for treating the bio-ores and expected products? What is needed to develop large-scale trials and pilot-scale biomass treatment units towards full commercialization?

The leading scientists responsible for initiating and developing phytomining and agromining worldwide will provide participants with the most recent scientific advances and feedback from field experience.

Day 1 - Metal hyperaccumulation and sources of metals

- The scientific basis of metal hyperaccumulation by plants (mechanisms, biology and ecophysiology)
- The global diversity of metal hyperaccumulators and their potential use in agromining projects
- The biogeochemistry of metals of interest in soils, mine and industrial waste
- Rhizosphere and microbial processes to enhance metal uptake by hyperaccumulators
- Rehabilitation of nickel laterite mining waste (New Caledonia, Brazil, Indonesia)

Day 2 - Agromining and metal recovery

- The agronomics of agromining operations
- Cropping systems for Ni agromining (experiences in Albania, USA, Indonesia)
- Production of refined products from bio-ores

A visit to agromining field trials set up at the GISFI experimental station will be organized.

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