University of Natural Resources and Life Sciences
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Institute for Environmental Biotechnology
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Head: Univ.Prof. DI Dr. Georg M. GÜBITZ

Student co-worker in environmental biotechnology (possibility on bachelor`s/master`s thesis)

"Using *Silphium perfoliatum* as alternative feedstock for biogas plants - Continuous lab-scale tests"

Anaerobic digestion is a common fermentation technology, used to make biogas out of agricultural residues and other substrates. In central Europe, maize is mainly used in anaerobic digestion, which creates problems of land use for food versus fuel.

Silphium perfoliatum could be a good alternative biogas feedstock in place of maize mono-cultures. In addition, *Silphium* has a long flowering period and expected positive effects on the beekeeping sector.

We are looking for a student co-worker with background in biotechnology, environmental science or process engineering to work on an on-going project aimed at using *Silphium perfoliatum* for anaerobic digestion. Your duties would include literature search, cooperation on process set up, feeding, monitoring a continuous lab-scale bioreactor data analysis (e.g. biogas production), taking samples and carrying out chemical analysis (total solids, volatile solids, chemical oxygen demand, volatile fatty acids etc.).

An enthusiasm for environmental biotechnology and the ability to work independently in an international team are essential.

We particularly encourage students who wish to write their thesis in English. Writing the thesis in German is possible as well.

Start date: as soon as possible (published on 21st May 2014) **Duration:** ~ 3 months

Biogas Research and Consulting Group Homepage: http://www.codigestion.com

Contact: ludek.kamarad@boku.ac.at (tel. +43 2272 66280-517)

Location of work: IFA Tulln–Institute for Agrobiotechnology http://www.ifa-tulln.ac.at

(for transport possibilities see www.oebb.at)

Salary: ~350€/month net possible