

INTERNATIONAL COURSE

AKTION

Rainfall Kinetic Energy as a Driver for Soil Erosion by Water

1.11.2015 – 6.11.2015

Introduction

As for any environmental engineering student, the soil erosion is one of the main topic of my field of study. The opportunity to attend this course is a great way to deepen our knowledges, learn new things and different methods and of course, it just sounds more interesting to spend a week at a new place, meeting new people and testing our theoretical knowledges in practice than listening lectures at our home university.

Course overview

The course lasts 6 day, but because the first and last day were the travel days to transfer between Czech and Austria, so the course has only four days to study and do the research. After a short introduction part, the first day started by lectures. During the morning, we learned about experiments to determine the soil aggregate stability and the rill erodibility. The experiments were performed in laboratory in the afternoon and the next day. The third day was an excursion day. First we visited the BOKU university experimental field. There at the experimental field we were explained and shown all the details and methods (tracers type, collecting and measuring the eroded soil, rainfal simulator use...) to understand outdoor erosion measurements and experiments. During the second excursion, no-tilling farming was introduced to us. We saw fields, which have not been tilled for 20 years (with regular harvesting) and also all the newest machines to cultivate those fields. Although I am not the biggest fan of no-tilling farming, after our excursion, I have to admit, there is many benefits compare to the standart tilling farming. I hope this topic has a place in future research. The last day of the course, we finished our experiments in the lab and calculated the results for critical shear and aggregate stability.

Personal view

First of all, I am really very grateful to have a chance to attend the course. It gave me much more than I expected. I learned a lot, saw a lot and made new friends. Special thanks go to Mr.Klik who was always ready to advice. His course organization was perfect and between the study part he arranged a nice huge dinner, a winery tour (from the terassed vineyards to the winemaking and wine testing). The same special thanks go to Mr. Dostal a Mr.Krasa who were always ready to help and also volunteered in the evenings to show the Vienna landmarks and historical center to us. This course was one of the best and most useful university events and I would highly recommend it to everybody who is interested in erosion.

Martina Fryčová



International Course on
„Rainfall Kinetic Energy as a Driver for Soil Erosion by Water“
within the AKTION project

In November 2015 I got an opportunity to participate on this international course within the BOKU university (University of Natural Resources and Life Sciences Vienna), Austria. I was and still I am extremely excited of this opportunity as well as of the course itself.

After the arrival on Sunday our mentors doc. Dr. Ing. Tomáš Dostál and doc. Ing. Josef Krása, Ph.D gave us an excursion through the city of Vienna and told us of its history and some remarkable places we should see in days to come.

Over the week we were attending lectures and practical sessions in the lab which were focused on research of different types of soil and theirs erosion. At the end of the week each of us made a report on this research. We could as well inspect the rain simulator of BOKU which we could compare with the one we use in CTU. Each afternoon we visited local places of interest.

A one-day field trip focused on issues of measuring erosion impact and antierosion soil protection was also on the programme of this course. We could see several problematic spots and we came to realise the difficulties of solving the issues of erosion protection (from the morfological and spatial point of view). We visited two high schools as well. At the first of them we were shown several agricultural machines and explained the way the should be operated for maximizing soil protection and minimizing costs. Second high school focuses on wine making. Excursion to two-year-old school building was really interesting. Surrounding vineyards have long tradition which could be guessed from the quality of local wine. We could also see the terrain treatment that was needed in order to fertilize the steep slopes of these vineyards.

We have met wonderful people, did some interesting experiments in labs of BOKU university, had the opportunity to see some of austria's high schools and at last but not in the least we practiced our english skills all the time. I am really excited I could participate on this particular course and I would gladly welcome more courses of this sort.

18.11.2015, Prague



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Bc. Sanja Krstić
CTU in Prague

Benefits

My name is Jakub Knap and I'm student of the 1st year Master's degree at the Czech Technical University in Prague, Faculty of Civil Engineering, branch of study Environmental engineering. Opportunity to attend the course AKTION I was already in the last year of study, but I did not use this opportunity. I wasn't attract by traveling. I'm very glad that this semester I decided to attend this course. I recognized a foreign country, the culture, the city and its inhabitants, and it was great. The main benefit for me was knowing how much it is important to learn foreign languages (English and German) and experience gained. Also, since AKTION I am thinking about studying or working abroad.

About the Course

Upon arrival in Vienna we were accommodated in a very nice hostel - HI Hostel Vienna Brigittenau. The first evening our teachers showed us some important monuments in the city center.

On Monday we met our mentor, prof. Andreas Klik, on the BOKU Vienna. After a short lecture on soil erosion and describe our experiments, we moved to the laboratory. The first attempt was a measure rill erosion with mini flume. On Monday evening prof. Klik invited us to dinner at the local restaurant called Centimeter, which BOKU payed us. The food was great and we all had fun.

On Tuesday we made a second attempt that involved testing the stability of aggregates according to Kemper. Because we have already done in the lab at noon and had a free afternoon, we went on a trip to the nearby Kahlenberg and Leopoldsberg. In the evening we get to know city and local attractions.

On Wednesday we took part in an excursion to the Secondary Agricultural School in Tull an der Donau, where teachers explained us the no-tillage cultivation technology field and shown an experimental agricultural land. After lunch we moved to a nearby Krems an der Donau on a field trip to a local winery and modern winemaking school. This included a wine tasting after which many of us bought wine.

Thursday was dedicated to the processing of data collected on Monday and Tuesday, the final evaluation, visit the rain simulator and farewell to BOKU Vienna. In the afternoon we visited another part of the city center and several sights.

On Friday morning we went back to the Czech Republic by bus.

During the course we have repeatedly met with students from the Czech Technical University in Prague, studying at BOKU Vienna, both in school and outside. These were the Sabina Melhubová, B.S. and Lucie Slavíková, B.S.

Overall, the rate of ACTION very good, informative, entertaining, and I would recommend it to other students.