ENOAT 2016 Proceedings

Current and Future Education in Organic Agriculture and Agroecology in Europe

ENOAT 2016 Workshop, Univ. Kassel, Witzenhausen [7-9 October 2016]

Peter von Fragstein, Charles Francis, editors

Materials available on the web sites indicated:

Hessian State Domain Frankenhausen: Teaching, Research and Transfer Center for Organic Farming and Regional Development. This is the center visited by ENOAT participants on the field trip.
https://itscloud.uni-kassel.de/index.php/s/KZwTwZZTfrob54R

EPOS: Innovative Education towards the Needs of the Organic Sector. Summary of the survey with stakeholders in Poland. Dr. Dominika Średnicka Tober & Dr. Renata Kazimierczak & prof. Ewa Rembiałkowska, Warsaw University of Life Sciences
[pdf document, also power point presentation]
https://itscloud.uni-kassel.de/index.php/s/KZwTwZZTfrob54R

Project Weeks of Ecology Course: Aims and Tasks of Tutors. UNIKassel, Ecological Agriculture Research. Prof. Peter von Fragstein [powerpoint]
https://itscloud.uni-kassel.de/index.php/s/KZwTwZZTfrob54R

Study Programmes in Faculty of Organic Agricultural Sciences. UNIKassel, Dean Prof. Dr. Gunter Backes, Vice Dean Prof. Dr. Detlef Möller, Study Dean Prof. Dr. Bernard Ludwig
https://itscloud.uni-kassel.de/index.php/s/KZwTwZZTfrob54R

Poster Presentations during ENOAT Meetings **20**

Participatory Action Education in Farming & Food Systems: Agroecology
Charles Francis, Erik Steen Jensen, Geir Lieblein, Tor Arvid Breland, Anna Marie Nicolaysen. Norwegian University of Life Sciences (NMBU) and Swedish University of Agricultural Sciences (SLU)
http://enoat.chil.org/

Developing experiential learning in a mandatory, "traditional" MSc course "European Farm and Food Systems" – a pragmatic approach'. Vibeke Langer et al. Copenhagen University, Denmark.

Masterclass organic agriculture, by ????

Students project about organic box schemes in different countries of the world. Susanne Kummer and students, BOKU, Vienna, Austria.

ENOAT 2016

Editors' Introduction

The annual meeting of the European Network of Organic Agriculture and Agroecology Teachers (ENOAT) was convened at UNIKassel [Kassel University] in Witzenhausen, Germany, in October 2016. Over the three days, XX participants from YY countries participated in the workshops, with additional guests and colleagues from the host institution contributing in some of the sessions and as guides in the excursion. The first evening was a dinner for participants to become reacquainted in a relaxed social setting. The second day was full with updates on teaching programmes in organic agriculture and agroecology. On the third day, an excursion to the university organic research farm and facilities plus a cultural visit to Bergpark Wilhelmshöhe and an informal dinner completed the program.

The program of the meeting [p. 3] and list of participants [p. 4] can be found here in the proceedings.

The guiding question of the meeting was how to promote organic agriculture and aggorecology education in our universities. There was a review of the educational programmes in each participating university, and an overview of the programme in UNIKassel. There was a workshop to discuss the results of the *Innovative Education towards the Needs of the Organic Sector, conclusions from the EPOS Project* by Dr. Rembiałkowska and Prof. von Fragstein. This was followed by two workshops on participatory methods in learning. During the coffee breaks there was a display of posters on education from several universities, prepared either for this meeting or previously presented in other workshops during the past year.

During the formal sessions, open discussions, and informal conversations at meals and on the excursion there was a robust exchange of ideas and experiences about different learning methods and tools, such as dialogue and reflection, or e-learning tools. Current research activities by participants in organic agriculture were often discussed plus Erasmus+ projects, Green Learning Networks, and on-farm research experiments.

Plans were initiated to hold the 2017 ENOAT workshop in September or October in Budapest, following the kind invitation of Dr. Zita Szalai.

Peter von Fragstein und Niemsdorf
UNI-Kassel, Witzenhausen, Germany

Charles Francis
Norwegian University of Life Sciences, and
University of Nebraska – Lincoln, U.S.A.

Footnote: The participants wish to especially thank Prof. Peter von Fragstein for his dedication to hosting and planning local arrangements for the workshop. (C. Francis)

ENOAT 2016 Programme Oct 7-9

Thursday, 7 October: Arrival. 19:00 common dinner in Witzenhausen

Friday , 8 October (day 1)

9h00	**Short welcome** and overview on the program by Peter von Fragstein (organizer)
9h10	**Current situation of Agroecology and Organic Farming teaching at member universities** *Please prepare a **1-page description** for your university before the meeting, send it to Peter via email before the meeting (pvf@uni-kassel.de).* *It should include current challenges and future plans and NOT include lists of courses or other material that is available on your web site).* Short oral presentation (3 minutes, no power point) by each participant, time for questions and concluding discussion.
10h30	**Vision of didactic activities at the Faculty of Organic Agriculture in Witzenhausen / Kassel Univ. – Angelika Ploeger**
11h00	Coffee and tea break with poster exhibition (posters of ENOAT members about recent teaching/learning activities)
11h30	Workshop 1: 10-minute presentation then questions and discussions **Innovative Education towards the Needs of the Organic Sector: conclusions from the EPOS project and revival of the values**. Ewa Rembiałkowska & Peter von Fragstein
12h30	Lunch break
14h00	Workshop 2: **Identifying challenges for developing experiential learning in AE and OA.** Chuck Francis, Geir Lieblein, Susanne Kummer, Vibeke Langer
15h30	Coffee and tea break with poster exhibition (posters from ENOAT members about recent teaching/learning activities)
16h00	Workshop 3: **Experiential learning for AE and OA: Dealing with challenges, planning actions**. G. Lieblein, C. Francis, S. Kummer, V. Langer
17h30	**ENOAT website** – moderator: Teresa Briz: Aims and design of the website **Concluding discussion** – moderator: Chuck Francis **ENOAT matters** – plans for 2017 and future years Preview of field excursion – Peter von Fragstein
19h00	Dinner: organized by Peter von Fragstein

Saturday, 9 October: Field Excursion to Organic Research Farm, Kassel, and **Bergpark Wilhelmshöhe**; informal dinner with Dr. and Mrs. Peter von Fragstein

List of Participants, Universities, Addresses

Location on Cloud with Peter von Fragstein's files from ENOAT 2016; these include a series of excellent photos which people will find useful, plus pdfs of posters and longer reports cited in the proceedings. Thanks to Peter:
https://itscloud.uni-kassel.de/index.php/s/KZwTwZZTfrob54R

SATURDAY, 8 October

Welcome to ENOAT, Dr. Ewa Rembialkowska;
Welcome to UNIKassel, Prof. Peter von Fragstain

Memorial Moment for Prof. Vytautas Pilipavicius, Lithuanian University of Agriculture; a short obituary is given here, from a computer translation.

Our colleague and friend, Dr. Vytautas Pilipavičius from Lithuania died on 13 December 2014 in Kaunas, at the age of 41, after a serious illness. He was a member of ENOAT, an agronomist and biomedical scientist at the Alexander Stulginskio University, Faculty of Agronomy, with specialization in agroecosystems and soil sciences, and professor at the Institute. Vytautas Pilipavičius was born on 10 July1973 and actively participated in Lutheran church youth activities. On one trip to Taizé New Year meeting of Christian youth he met his future wife, Vilma Kutraite. In 1992-1996 he studied at the Lithuanian Academy of Agriculture, and also earned the biomedical sciences Agronomy PhD degree in 2007. From 1999 on he taught at the Lithanian University of Agriculture, and from 2007 he worked for the Agriculture Department, becoming Professor in 2013. His research areas have been general and organic farming, medicinal plants, and agroecology. Since 2009 he has been editor and deputy editor of journals in agronomic research and agricultural sciences. He has published about one hundred scientific and popular science articles. He wrote the textbook *Organic Agriculture* (2008) and *Basics of Agronomy* (2011) with colleagues, and in 2014 released the book *Organic Agriculture Towards Sustainability* as editor and co-author of several chapters. In addition to German and Lithuanian, he was fluent in Russian and English languages. He has presented research data in conferences in Bulgaria (1997), Germany (1997, 1998), Czech Republic (1998), Estonia (1998, 2003), and Denmark (2006). Vytautas was awarded the Commemorative Medal from the Ministry of Labour in 2008. He is buried in Petrašiūnai Cemetery, Kaunas. He is missed very much by his family and colleagues in ENOAT and his university in Lithuania and all others who knew him.

Country Updates:

Vibeke Langer, Copenhagen University
Head of Agronomy Master Programme
Copenhagen University has a broad B.Sc. program with a range of study topics including agronomy, soils, plant science, and environmental issues; organic has been integrated into all courses for many years. VL teaches the one course in organic farming. Students coming in today arrive with limited agricultural context and experience [<15% today], and most are interested in permaculture, agroecology, sustainable agriculture, and organic foods. The best way to orient these people is to relate them to real world situations by going to the field and observing/participating in farming situations and the food system. We are hoping to educate change agents who will go into the world with new ideas and motivations. There is a poster on 'Developing experiential learning in a mandatory, "traditional" MSc course "European Farm and Food Systems" – a pragmatic approach' by V. Langer et al. The poster includes the Kolb Cycle and its application to learning in organic agriculture. Teaching is a challenge because of the wide range of prior lived experience, and the need to build a platform from which everyone can find common ground and basis for

discussions in class. Organic farming in Denmark has been a large segment of agriculture for some years, and now much of organic production resembles the large, commercial situation.

Darija Bilandzija, University of Croatia
Teacher in organic and agronomy programme
We include a wide range of topics and build on field trips as well as classroom presentations. There are about 500 students in the college, with 30 in organic class and 30 in agroecology. Several other teachers from the department are involved in these courses fro, including specialists who come in to give particular topics and concrete knowledge about their areas. Interest in organic agriculture in Croatia is growing, among students, farmers, and consumers, so this may result in larger demand for courses in the future.

Maja Manojlovic, Faculty of Agriculture, University of Novi Sad, Serbia
Teacher in organic agriculture
Organic production and foods are growing in Serbia, with many small farmers and also the emergence of large organic farms and processing facilities. Organic courses are taught at several levels since 2009. Department of fruit and vegetable crops also has courses in organics. In each level there are about 50 students, and there are courses in agroecology and in plant protection. There is also a PhD in agroecology, or students can take the degree in Agronomy and specialize in Agroecology. Sometimes there is difficulty in getting jobs, so graduates seek other opportunities in related fields. They often start research during graduate study, and often work with non-profits or other companies. Much of the teaching is in plant protection. Students come from other universities and may have different levels of knowledge at the start. When there is a large farm such as a dairy enterprise, it closely resembles the industrial-type farm, and they follow the organic rules but are not in the true spirit of organic; one difficulty is finding adequate sources of organic feeds for the dairy animals. [one-page summary later in proceedings].

Zivile Taraseviciene, Lithuanian University of Agriculture in Kaunas, Lithuania
Teacher in agriculture and food systems, and organic food products
Number of students is healthy in Kaunas, but there is some difference in opinion about what organic farming is all about. Some of the introductory information has to be orientation about what organic means, how this is related to environment, and how the impacts are related to rural development. There is focus on practical issues during teaching such as organic practices, farming systems, and biodynamic practices by one of the professors. There is recent support from World Bank for laboratory facilities and analytical tools. Growth of organics was steady during the 2000s, but now is maintaining a level number of farms. There are about 3000 organic farms that are certified in LIthuania. Organic products are seen as expensive, and thus out of reach of many consumers, or many do not realize the advantages to purchasing organics in the shops. My background is in chemical components of foods, nutrition, and food quality studies.

Zita Szalai, Szent István [or] **Corvinus University, Budapest, Hungary**
Teacher in organic farming and crop science

Organic farming has been part of the curriculum for the last 20 years. This year there are 160 students in the program, and they come with different levels of interest and also levels of background. At the start of the study term, there is importance placed on field tours to organic farms and to environmentally-friendly farms so that students can see that these systems work in a practical way. Several students finished the MSc courses this year, but none has finished the thesis yet so have not completed their degrees. There has been a merger with the _____University in Budapest. There is an organic research farm located about one hour away from the university campus where students can get practical experience and do thesis field research. There is currently a negotiation to have an organic farming department, and the MSc would be in this department.

Geir Lieblein, Norwegian University of Life Sciences, Aas, Norway
Professor in agroecology
Organic farming has been a course in NMBU since 1985. Agroecology MSc program has been running since 2000, with 18-24 students each year; at any one time we are advising about 40 students in the two-year MSc program who are planning thesis proposals, conducting research in the field, or writing the final thesis. Graduation rates have been over 85% after 2.5 years from starting the degree program. This is the largest group of MSc students in the Department of Plant Sciences at NMBU. We currently have a cooperative program with University of Calcutta, and have proposals under review to establish new cooperative exchange programmes with University of Kerala in Sri Lanka and Makeli University in the north of Ethiopia. According to several reports, Nic Lampkin is likely to rejoin the ENOAT group because of his new teaching role while working at Elm Creek Farm.

Paola Migliorini, University of Gastronomic Science, Pollenzo, Italy
Assistant professor in agronomy, organic farming, sustainable agriculture and agroecology at Bachelor and Master level.
The University of Gastronomic Sciences, founded in 2004 by the international non-profit association SlowFood is a ministerially recognized, private non-profit institution (http://www.unisg.it/en/). The result is a new professional figure—the gastronome—skilled in the production, distribution, promotion, and communication of high-quality foods. Gastronomes are the next generation of educators and innovators, editors and multimedia broadcasters, marketers of fine products, and managers of consortia, businesses, and tourism companies. UNISG students, hailing from around the world (80 nationalities), gain dynamic experiences in artisanal and industrial food production, thanks to complementary education in both sciences and humanities, sensory training, and hands-on learning during study trips across five continents. To date, more than 2,000 students have studied or are studying at UNISG. TERRA MADRE (https://www.terramadre.info/) large international event, held this year in Torino 22-26 September 2016, had a huge attendance (1M visitors).
I am on the board of IFOAM Agrobiomediterraneo and in the Agroecology Europe association (http://www.agroecology-europe.org/), with the first foundation meeting in January 2016 and open to anyone who wants to contribute. We are organizing the first Agroecology Europe Forum, that will take place 25-27 October at ISARA, in Lyon (France).

I'm particularly involved in forming bridge and understanding divergences and convergences between Organic agriculture and agroecology, both as movements, science and practices.

Teresa Briz, Technological University of Madrid
Professor in Agronomy, teaching organic farming
A new name for the university is helping implement change, and there will be a higher profile and strong recognition of organic farming through establishing specific courses, where this has just been a part of other department courses up until now.

Katarzyna Kucinska, Ewa Rembialkowska, University of Warsaw
Professor in Faculty of Agriculture and Biology
Professor in Human Nutrition and Consumer Sciences
There are administrative changes with a new dean, and organic farming is now being recognized and courses established in organic farming and organic animal science. There are now 45 students in the organic course, and new research on organics in the experiment station; this is a change for the department. There is a course in English in organic agriculture in the MSc program. The new course plan is to include about half of the courses as elective choices, including organic agriculture and environmental concerns. A new course in organic foods and sustainable diets is being planned.

Cor Langeveld, Wageningen Agricultural University [WUR]
Professor of Agriculture and Communications, and leader of international student involvement
The program for MSc started with ten students and now is up to 65, with focus on organics and food systems. WUR is currently recruiting a professor of agroecology and food systems.

Susanne Kummer, BOKU, Vienna
Teacher in organic crop science
There are thirteen bachelor and eight master programs, and about 10,000 students in BOKU. The BS program has 1,300 students in agricultural sciences. The MS program is Organic Agricultural Systems and Agroecology and ELLS which is the International MSc OA Systems and Agroecology [EUR-organic] in English and German. For the degree, there are 4 semesters with 120 ECTS which were established in 2013; there are 41 students in old master, 119 in new master, 32 in first semester, and 11 graduates. Study also includes excursions in Austria, and in Cuba and Sri Lanka. ISARA Lyon is now a partner for the next three years.

Angelika Ploeger, former study director until October 1
Now there are new Dean, Vice-Dean, and Study Dean in Witzenhausen.
Organization of faculty of organic agricultural sciences, started in 1800+ and the faculty here is since 1971; in 1981 the professorship for alternative farming methods was appointed, Peter von Fragstein, which then became Professor for Organic Agriculture. In the MSc, there are

- organic agriculture [german]
- sustainable international agriculture

- food business and consumer studies
- sustainable food systems

There is a BSc in organic agriculture [german] which is 6 semester, 180 credits, and dual studies, /there are cooperative programs with J.D. Gottingen, DD Talca, JD Fulda, Lyon, Gent, and Cluj Aarhus. A new study program involves food in the food chain as well as food and culture. Fulda [applied sciences], different from basic sciences and focus on research; sustainable food systems course was filled within four years, and continues with cooperation with four other universities [students must be in at least two universities, and must pay a 'coordination fee' that is not called tuition. Total number of students is 1150 here in Witzenhausen, Kassel Univ has over 32000 students. 55% women, 190 beginning in BSc, 120 in MSc, and 19 in PhD programmes. Organization is still in sections such as soils and plants, animal sciences, economic/social/food sciences, agricultural engineering. There is a 340 ha organic research farm, tropical greenhouse, laboratories, 250 employees, and 25 PhDs/year. With a large research portfolio there is an increasing emphasis on research, and thus less on teaching. Clear mission statement with sustainability and diversity, teaching/learning/research is a joint task, regional and international fields of action, a learning organization. Statement with comments from successful alumni is a useful tool for selling an educational program. There is important reflection about the specialization/practical application issue, is there enough knowledge about conventional ag, how much practice is needed before study, how to get more people interested in agriculture and food systems, how about importance of food for society. Problems include vertical sections instead of a systems approach, and BSc/MSc at different types of universities [basic vs practical approaches, or should these be more integrated]. Students are divided into a more academic track and a more applied track. We need to look at more mega trends in society: urbanization, immigrants, change or loss of food cultures, more city farming, more singles and elderly in society and how do we integrate. Climate, biodiversity, privatization, water, sustainable development. Immigration is a huge issue, education and children's and elderly care, nutrition depends on income. Highly thoughtful and relevant topics are a part of the discussion about future education. We need to incorporate food culture into agriculture. Sustainable development goals from the UN are important guidelines for planning of all study programs in agriculture and food. We need to fit programs to the megatrends of society.

EPOS – Innovative Education toward the Needs of the Organic Sector [see power point by Ewa Rembialkowska, Warsaw University and Peter von Fragstein, Univ. Kassel]
Presentation of conclusions from the EPOS project and revival of the values.
Peter: a good summary of stakeholder opinions about our current teaching and learning methods, and there is clear importance put on communication and team working skills as compared to more theoretical and knowledge areas. There is desire to find graduates who have practical skills, more than theoretical skills; are students being educated with learning how to learn, with abilities to work together and communicate with the public, and to get graduates more specifically prepared for jobs outside science and teaching where most of the employment will be found. The lessons here are applicable to all academic programs, and not specific to organic agriculture and food. There is need to know enough technical material to function well when this is needed, but there is more need for additional skills

that are not learned in lectures. There should be a balance between the two, both basic and theoretical knowledge and the practical applications.

We focus on 'bringing students into the university' when we should consider more emphasis on 'taking students out into the real world as part of the academic experience.' It would be valuable to put more emphasis on surveys about our recent graduates, and what they are doing after university. Do they get jobs? Are employers satisfied with their education? Are students satisfied with their jobs and ability to perform? Has the university adequately prepared them for finding employment in the 'real world'? [Paola] We should be preparing for the future workplace, and have capacity to change the future workplace rather than just adapt them to the present. That will change, and will our students be active players in that change. [Ewa] We can do our best to educate people, and it is a challenge in the former socialist countries where there are long-standing academic cultures with strong hierarchy of control. It is not only how we teach, but also depends on the home education and what is learned outside of class. Good example is punctuality, where there are different values in parents, young people, and society. [Teresa] We set high standards and rules, and have high expectations of our students and they will respond. They come to the final exam on time, dressed with a tie, and perform politely with their examiners … just as they should with farmers when they conduct interviews, focus groups, other interactions with stakeholders. [Geir] Skills need to be practiced, and good skills take repetition, and practice punctuality and good behavior as instructors. Example is locking the door to the classroom at the time the class is supposed to start. [Peter] Some skills that were formerly taught in the home are being pushed to the school system including the university; such soft skills are very much needed, and we need to take into account the differences in society.

Workshop 2 & 3: Identifying and Dealing with Challenges in Participatory Learning
[Geir Lieblein and Charles Francis]

1400-1530: What are our key challenges?
Introduction: workshop process and learning model for OA and AE [see Geir's ppt] [20 minutes]
What are key challenges for developing experiential and student centred learning in our courses? [45 minutes]

- create a mental shift for teachers from expert to facilitator
- empower students to take responsibility for their own learning
- learn to deal with different levels of preparation [some behind, some are bored]
- validate prior student experience as unique & valuable [John Dewey, 1916]
- create motivation to gain & apply knowledge; just-in-time learning
- convince colleagues that learning is >>>> important than teaching
- set clear learning goals & outcomes of education
- distinguish between training and education, resolve the issue, create balance
- mobilize resources needed to implement change [smaller classes, mobility]
- provide administrative support for change in education, from research grants to teaching innovation

- identify the unique role of the university [especially OA & AE] in teaching systems approaches, increase the profile of holistic studies, introduce at all levels of education by reforms
- develop skills and motivations for change, and create a supporting environment
- bring together farm practice and classroom education – what are the major student concerns, how do students maintain focus
- organize lessons to keep students active, evaluate farm enterprises themselves, become reflective to evaluate their own learning and participation
- begin to address the future, and how students will deal with future challenges
- learn how to criticize and positively correct to improve knowledge and performance
- learn to overcome a hierarchical, 'old-fashioned' system

Plenary presentations [25 minutes]

1600-1730: Dealing with challenges and creating action plans

1. How can we deal with the key challenges [35 minutes]
2. What can we do individually and together [30 minutes]

- take a deep breath
- set low expectations; work with one small step at a time [non-revolutionary]
- identify most interested colleagues/people you enjoy working with
    - in your own department
    - in your own university
    - internationally
- talk with teaching director or dean about expectations & ideas [Angelica's talk]
- convene teachers in department and discuss the topic [small groups/world café]
- convene a participatory learning workshop for faculty
- identify successes/make videos/present evaluations from students
- invite students who have been successful to present mini-lectures
- summarize and publish results
- travel and observe programs elsewhere
- establish participatory learning platform for international doctorate in AE & CB
- establish a participatory learning/team teaching award on campus
- create self-support groups[worktogether toward shared goals
    - establish joint teaching projects, seek grant funds
    - create a 'strength in numbers' situation, a critical mass of interested people

3. Plenary presentations [20 minutes]
4. Workshop wrap up [5 minutes]

Major lessons learned from workshop:
- one major issue is to identify how ENOAT can contribute to the process

ENOAT Matters

1. **Websight development**

Teresa worked with students and a faculty advisor to examine the potentials of a web page for ENOAT. Two documents were provided to students who developed the first draft. Need to resolve:

- how many managers: Teresa, ???
- level of update: how often should this be? A continuous update would be highly desirable, because students are making decisions
- sections: can be decided by our group; one key section should be courses available in a teaching section; update each year on new courses that have been established. Need to prepare a section for each university with available courses, including details on course number, semester, ECTS, instructors, course description [this can be linked to the map, so faculty and students can quickly get details about what is available in organic agriculture and agroecology]
- colors: details can be suggested by those designing the web site
- maps: each participant can be hot linked, and we can have names, locations with emails addresses, phone; suggested by Peter NOT to link this to university web sites, and keep this individualized to ENOAT. Each person can be responsible for providing their own information.
- References: include all proceedings since 2007
- Teresa, Peter, Cor & Chuck will send input on what content should be included on the web site [as long as we assure that CAF does not do anything electronic to destroy the website]; they will solicit ideas from all the group for opinions on what to include. Feedback will be solicited, and ideas assimilated to distribute to group for discussion and feedback.

2. Next year's meeting:

Zita says that local political situations have been resolved, and Hungary will invite us to Budapest for the next annual workshop. The best dates for the meeting are to be decided: a poll will be used next May to determine the best dates toward the end of August through the middle of October [12-13 October are proposed] would be convenient for the hosting institution. If university facilities are not available, this could be held in a hotel where participants are staying for a minimum cost.

Organic Agriculture and Agroecology Teaching at the Faculty of Agriculture, University of Novi Sad

Maja Manojlović
Faculty of Agriculture, University of Novi Sad, Serbia

The study programs are organized according to the Bologna system (4 + 1 + 3). The same situation is on all public universities in the country and is dependent on financing by Ministry of education and science.

BSc in Organic Agriculture started in 2009/2010. Later, the program was changed and passed reaccreditation in 2014. The numbers of new I year students are around 50. Responsible department for organization the study program is D. of Field and Vegetable Crops although teachers from all departments are involved in teaching process. **BSc in Agroecology and environmental protection** started in 2008. About 50 students enroll the program each year. It is organized by D. of Plant Protection. **BSc in Agroturism and rural development** started in 2009/2010 under the responsibility of D. of Agroeconimics. **MSc in Organic Agriculture** started in 2006. Currently, a number of students are 12. D. of Field and Vegetable Crops is responsible for the program although a few teachers from other departments are involved in teaching process. For the time being, **MSc in Agroecology and Environmental Protection** doesn't exist at the Faculty of Agriculture. Students are directed to other MSc studies and to the International Joint Master degree in Plant Medicine.

PhD in Agronomy - it is possible that dissertation is with organic agriculture topics.

Current challenges and future plans

All current courses are in Serbian. We have had a few foreign students mostly from the neighboring countries and Africa and we expect more foreign students in future. Numbers of BSc students are decreasing after the first year of the study as some of the students are at the university as they cannot find job (according to questioner 15-30%), they move to private faculties/universities after they left public university, usually after first year of study. The background and knowledge of the students are very variable, especially on the first year and some of them are not active during semester, they leave almost all tasks for the examination period. However, there are always few excellent students really interested in organic agriculture theory and practice, who have vision about use of gained knowledge. Those students are also interested in different trainings, to spend semester at foreign university, start small research, start own production, work within NGOs and to continue study to get MSC and PhD degree.

Big challenge for MSc students are short time for work on Master thesis experiment and writing as only one semester is dedicated to work on the thesis and whole program last one year, particularly if students are not coming to MSc from our university.

Since we already have two generations of graduate students, we are expecting reaccreditation next year as a chance for improvement of the programs in order that students easier find job.

Universität für Bodenkultur Wien
University of Natural Resources and Life Sciences, Vienna

Teaching Activities in Organic Agriculture and Agroecology at BOKU

Structure of organic agriculture teaching at BOKU

Several divisions and departments give lectures in the subject of organic agriculture. Most of the lectures are organized within the Department of Sustainable Agriculture Systems. There is a Division of Organic Farming at BOKU (http://www.nas.boku.ac.at/en/ifoel/).

Bachelor Level

Bachelor program in **Agricultural Sciences**
Language: mainly German (at least 10 ECTS have to be completed in English)
Duration and number of credits: 6 semesters, 180 ECTS
Compulsory courses in agro-ecology (3 ECTS), and organic agriculture (3 ECTS)
Elective courses (pool of 33 ECTS) and free elective courses (pool of 13,5 ECTS) in organic agriculture
It is possible to chosen organic agriculture as a "study focus" by completing all compulsory courses in this area (33 ECTS).

Statistics (2015/16):
1.318 students (300 in first semester; 152 graduations)

Master Level

MSc Organic Agricultural Systems and Agroecology (AgrEco-Organic) and
ELLS International MSc Organic Agricultural Systems and Agroecology (EUR-organic)
Language: English and German
Duration and number of credits: 4 semesters, 120 ECTS

In 2013 the MSc on Organic Agricultural Systems and Agroecology was established together with the International ELLS Master (EUR-organic). Students in the "old" master programs "Organic Agriculture" and "Agroecology" can only finish their study programs until 30 November 2016. The EUR-Organic Master program is carried out within the framework of the Euroleague for Life Sciences (ELLS) with Aarhus University (AU), ISARA Lyon (since October 2016 for a 3-years period), University Hohenheim (UHOH), and Warsaw University of Life Sciences (WULS-SGGW) as partners.
In the current study year (2016/17), 15 students start the EUR-Organic Master with BOKU as home university, and 3 with BOKU as host. For students applying EUR-Organic, application requirements exist regarding knowledge in natural sciences, social sciences and engineering. These requirements may be up to 30 ECTS additional courses. The students are advised to carry out a self-evaluation to assess their eligibility for the programme.

Distinctive BOKU course offers in the context of Organic Agriculture and Agroecology:
- Local knowledge and ethnosciences (6 elective courses)
- Systems, Scenarios, Sociology and Ethics (8 elective courses)
- Organic Agriculture in Subtropical and Tropical Environments (8 elective courses)
- Compulsory excursion within Austria and neighbouring countries, but also to more "exotic" destinations such as Cuba and Sri Lanka

Statistics (2015/16):
160 students:
- 41 in "old" master (0 in first semester as this curriculum expires; 9 graduations)
- 119 students in "new" master (32 in first semester; 11 graduations)

University of Natural Resources and Life Sciences
Gregor-Mendel-Straße 33; 1180 Wien / Vienna
www.boku.ac.at; Contact: susanne.kummer@boku.ac.at (ENOAT-representative)

Dr. Susanne Kummer, current address at FiBL: susanne.kummer@fibl.org

Current situation of Agroecology and Organic Farming teaching at University of Copenhagen

Vibeke Langer 8.10.16

Current situation:
Agroecology and Organic Farming and Food *as practices* are currently integrated into many traditional courses. However, the discussions about *the values*, as Organic farming as a possible road to sustainable agriculture are still only taken few places, e.g. in the course Organic Agriculture (7.5 ECTS English). This is followed by BSc students in Natural Resources, mainly those who do not plan to work in agricultural production but in environment and nature conservation.

Overall challenge:
Only a small proportion (<15%) of the BSc students come from a farming background and subscribe to the logic of Danish agriculture as the backbone of DK economy and as an industry which should have special rules. The rest of the students see little future in traditional agriculture but have still signed up for a program taking them into this area. The challenge for us as educators is make these students able to be innovative professionals in an industry which will have to change fundamentally in the future: by making livestock production into an industrial production, by changing the food system into relying on local sourcing, by integrating nature conservation and agriculture, etc. For me this means, that in order for them to be able to "think out of the box" they need to know what is in the box = know the rationale, practices and problems in our current agriculture.

Future plans
I am course responsible for two courses aiming to do exactly that: to know whats inside the box:
Organic Agriculture which is the only course available about the farm system and the farmer, disguised as a course in Organic Agriculture
European Farm and Food Systems – a mandatory MSc course forcing the students to – once in their education – to work out reality with partners and stakeholders. (see poster)
The challenges with this are course are 1) how to find the balance between product and process, 2) alignment between course content and assessment, 3) coping with student diversity in the Danish context.

Organic farming Education at Szent István University of Budapest

Zita Szalai
Faculty of Horticultural Sciences, Department of Ecological and Sustainable Farming Systems
2016

Organic Farming education had been developed a lot in recent years, during the past few years our department has launched the MSc course of OF. We have regular students every year, but their number was under ten. OF is the topic of high priority showing the whole scale information from agriculture to horticulture, for the environment management engineer students, and for horticultural engineer students. We educate OF as A (compulsory) subject on BSc level for them in their 5th semester. They can specialise to OF and can write their thesis about the topics offered by our Department. Other agricultural courses, - joint courses with Corvinus University - also gaining knowledge of ecological way of thinking about agriculture and horticulture as well through other subjects educating by the Department.

Organic farming is educated on BSc and MSc level at the Faculty of Horticultural Sciences. The responsible department is Department of Ecological and Sustainable Farming Systems

On BSc level there is no independent or accredited OF course yet. The Department issues BSc, MSc and PhD topics in organic farming.
Education of Organic Farming launched in 1992, as an elective course in the traditional training system, since 1994 we have been teaching it as a compulsory elective "B" course for four terms. Having started the Bachelor training system, Organic Farming became a compulsory subject for all Horticultural and Agricultural Engineer students on BSc level. http://okogazd.kert.szie.hu/

Postgraduate education with admittance of relevant BSc degree is available since 2012, in OF it is four semester, and give a graduation with a specialised engineer degree as Organic Farming engineer, made it accredited and educated by our OF Department, Budapest.
The education of OF on MSc level is not privilege of our department, since we had been joined to Szent István University, Gödöllő. The Faculty of Agricultural Management in Gödöllő has an Institute: Institute for Nature Conservation and Management that involves two departments and one of them is also focusing on OF, but in different aspects are emphasized. The name of the Department is Dept of Organic Farming and Agri-environmental Planning. [www.tti.szie.hu]

They also educate OF on BSc level, on Environment management engine er course.
Since we have been joined the two OF department started to discuss the similarities and differences, and we have concluded, that both departments have its specialities, so they can find students interested to their courses. The syllabus of two OF MSc course has similarities but it is educated separately, with teachers from the different faculties of Gödöllő and Budapest. Sometimes special subject are educated by the same teacher, the same person at both site.
On MSc level, our department is focusing on the admittance at the autumn semester, and Gödöllő is focusing on the spring semester, in this way we can share the MSc interested students in Organic Farming.

Problems: in tree years time the education of Environment management students on BSc level, will overtaken by Gödöllő, Budapest will educate the Horticultural engineers. (BSc, MSc).

Good news: Horticulture engineer degree course on BSc level is available from this year in English too, in Budapest.

List of Posters [that are sent in by authors are included in proceedings at the end of this document as pdf or ppt files]

1. '*Developing experiential learning in a mandatory, "traditional" MSc course "European Farm and Food Systems" – a pragmatic approach'* by V. Langer et al. Copenhagen University, Denmark.

2. *'Participatory action education in farming and food systems: agroecology'*, by C. Francis, E.S. Jensen, G. Lieblein, T.A. Breland, and A.M. Nicolaysen, Norwegian University of Life Sciences, Aas, Norway.

3. *'Masterclass organic agriculture'*, by

4. *'Students project about organic box schemes in different countries of the world'* by Susanne Kummer and students, BOKU, Vienna, Austria.

5. *'Recent teaching/learning activities in the field of ecological farming in Aleksandras Stulginskis University (Lithuania)'*, by Zivile Taraseviciene

6. *'Organic education at Warsaw University of Life Science',* by Ewa Rembialkowska and Katarzyna Kucinska, Warsaw University.

7. ***[NMBU competencies poster]***

8. ***[NMBU poster from AFSA workshop]***