



EURAF European Agroforestry
Federation

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1. EURAF ACTIVITIES

EURAF activities during July and August were related to important international activities. Patrick Worms invited María Rosa Mosquera-Losada to present agroforestry in Europe within the special agroforestry session in the [Caux Forum](#), a conference organized in collaboration by the United Nations Convention to Combat Desertification (UNCCD), the International Union for Conservation of Nature (IUCN), the Initiatives for Land, Lives and Peace and the CAUX-Initiatives of Change Foundation. The event was a great success with many farmers and policy makers from different countries all around the world and is briefed in this newsletter. The initiative Soil4Climate was also presented by Seth Itzka during the agroforestry session in the [Caux Forum](#).

At the end of August, Anastasia Pantera and María Rosa Mosquera-Losada co-chaired the [Agroforestry and Environment session](#) within the [15th International Conference on Environmental Science and Technology](#) in Rhodes, Greece. Pollination ecosystem services talk was excellently presented by Sonja Kay, while the adaptation of the SAFE model to feed animals in Mediterranean systems was shown by Silvestre García de Jalón. Anastasia Pantera described the important land cover changes in the valonia oak silvopastoral system in Greece and José Javier Santiago-Freijanes and María Rosa Mosquera-Losada made several presentations dealing with the European Agroforestry Policies.

The [6th international Symposium on Soil Organic Matter](#) took place in Rothamsted Research, Harpenden, United Kingdom. The role of agroforestry as a practice and a system promoting ecointensification to increase soil carbon stocks was highlighted by several keynote speakers and oral presentations. Professor R. Lal (Columbus, OH/US) in his presentation entitled “Soil Organic Matter in the Anthropocene” mentioned agroforestry as an excellent tool to increase soil organic matter in his plenary talk.

The Global Research Alliance carried out the meeting of the [Cropland Research Group](#) on 8th September that has an [Agroforestry Research Network](#) dealing with the role that the different agroforestry practices have to play to combat climate change.

EURAF was represented by Eloi Villada and Francisco Javier Rodríguez-Rigueiro during the [CDG of Rural Development](#) that took place at the beginning of September in Brussels. The Commission explained the EU actions for Smart Villages 2014-2020, on which EURAF can play a role, aiming at rural areas repopulation, rejuvenation of the population, improvement on the employment opportunities, security of services and basic infrastructure, improvement of digital coverage, the adequate territorial development and the improvement of the life quality in rural areas in line with the Cork 2.0 Declaration.

The agroforestry session “[Agroforestry - the future of land use management?](#)” organized by Christopher Morhart, Albert-Ludwigs-University (Germany) and co-chaired by the former EURAF President Dr. Christian Dupraz took place during the [IUFRO Congress](#) in Freiburg, Germany. The important role of agroforestry as a tool to adapt and mitigate climate change as well as the ecosystem services and improvement of nutrient balance delivery carried out by agroforestry in Europe was described by Christian Dupraz, María Rosa Mosquera-Losada and Sonja Kay presenting [AGFORWARD](#) results.



Figure 1: On the left, Anastasia Pantera and María Rosa Mosquera-Losada co-chaired the Agroforestry and Environment session in the 15th International Conference on Environmental Science and Technology; in the middle, Croplands Research Group members of the Global Research Alliance; and on the right, Christian Dupraz explained in the IUFRO Congress that in the future agroforestry will be more productive than agricultural lands.

Source: María Rosa Mosquera-Losada (EURAF President), September 2017.

2. REGIONAL AGROFORESTRY NEWS

2.1 Soil carbon stock in olive groves agroforestry systems in Umbria region (Italy)

A master thesis focused on olive orchards with different management schemes was implemented in Umbria region (Italy) within the [SUSTAINFARM](#) research project.

The aim of the thesis was to investigate the soil carbon stock in olive groves, and to assess which practices can improve soil carbon sequestration in these systems. A survey was carried out considering different olive groves, including conventional and organic management, and a typical silvopastoral system, where olive cultivation is combined with sheep grazing. Furthermore, an abandoned olive grove and a nearby forest were examined as a comparison. In particular, the following hypotheses were tested: i) the examined silvopastoral system is able to store more carbon than the other olive groves management systems; ii) different soil amendments can affect soil organic carbon stock in the examined olive groves; iii) the recovering olive grove has a higher soil carbon stock than a productive olive grove growing in the same farm; iv) the carbon stock in the examined olive groves is lower than that of a wooded area growing in the same region.

In the hilly lands of Umbria region (Italy) there are about 27.000 hectares of olive groves, whose production may have significant environmental effects in terms of soil carbon storage. Soil samples were collected in each farm, and analyzed for carbon content and physic-chemical characteristics. Information concerning agronomic practices used in the farms were collected through farmers' interviews. Irrespective of the management system, the high values of soil carbon stock indicate that olive groves in the Umbria region could play an important role in soil carbon sequestration, comparable to that of natural forest ecosystems. In fact, by taking into consideration the total average soil carbon stock, the highest value was observed in the soil of the forested area (87.5 t C ha^{-1}), followed by the soil fertilized by the use of pomace (80.9 t C ha^{-1}). A slightly lower soil carbon stock was measured in the silvopastoral system in comparison to the other farms, probably due to the impoverishment of the soil connected to sheep grazing. Finally, the evaluation of the soil carbon stock in the deeper soil layers turned out to be very important for the analysis, as they can store a considerable amount of carbon.



Figure 2: On the left, olive orchard managed as a silvopastoral system; in the middle, conventional olive orchard in which pomace is distributed on the soil to restore fertility; and on the right, collecting soil samples in olive grove.

Source: Camilla Bateni (Master in Environmental Management of Mountain Areas, Free University of Bozen-Bolzano.), "Soil carbon stock in olive groves agroforestry systems under different management and soil characteristics", August 2017.

2.2 Caux Forum, Switzerland

The [Caux Dialogues on Land and Security](#) are becoming an established summer fixture for the land restoration community. The ambitious decision this year to run three parallel streams there was an inspired choice.

The Restoration Stream started off with a somber stock-taking of the scale of the challenge facing the human race. Land degradation, far from slowing down, appears to be accelerating despite solemn international commitments, and affects some of the lands we most depend on to feed the world, from the American Midwest to the rich black soils of Ukraine. And yet, the stream finished on a note of optimism. Inspired by stories of success shared by the likes of Rosemary Namatsi or John D. Liu,

participants rapidly agreed that the technical aspects of land restoration, while highly context-specific, were relatively simple. Hint: it involves adding a lot of trees to the mix!

What mattered far more - and what the stream consequently spent much of its time drilling down into - are the requisite social and political enabling conditions. There, the stream reached across almost all scales, from that of a small group of committed restorers joining forces in the Ecosystem Restoration Camps to the art of influencing the global policy environment shared by Luc Gnacadja. Holistic management, unsurprisingly, featured prominently, from Seth Itzkhan's explanation of how to use it to lock carbon up in the soil through Judith Schwartz' magisterial overview of its role in grazing or water conservation to Renald Flores' deeply affecting recollection of how it helped him travel from the amoral world of hedge fund management to that of soil restoration consultant.

Source: Patrick Worms (World Agroforestry Centre), September 2017.

3. FEATURED FARM: Quinta de Vila Boa de Arufe, Portugal

Quinta de Vila Boa de Arufe is a 188 ha farm located in the Portuguese Trás-os-Montes region (Bragança Municipality; in PTCON0002 Natura 2000 site), dedicated to agrosilvopastoral activities. Its area is occupied by: i) 150 ha of *Castanea sativa* orchards (souto)* with permanent pasture production; ii) 20 ha of *Quercus pyrenaica* silvopastoral area; iii) 12 ha of meadows for hay production; iv) 5 ha of *Castanea sativa* plantations for firewood; and v) 1 ha of plant nursery.

The farm focuses on organic nut (Denomination de Origin Protégé - “Castanha da Terra Fria”) and meat production. After the installation of improved and biodiverse pastures in 1995/1996, and the maintenance of the permanent pastures in the irrigated land, the number of animals was increased from 100 to the current 420. The animals and trees are managed according organic practices that imply the alternated movement of the sheep along seven management units, according to climate and pasture conditions that are permanently assessed. The harvesting process is mechanical.



Figure 3: Seasonal aspects of Souto (Castanea sativa) permanent pasture.*

Diseases such as chestnut blight (*Cryphonectria parasitica* Murr Barr.) and chestnut ink (*Phytophthora* sp.) have been the main problems of sweet chestnut production. In recent years, a new problem is

starting to emerge, the Asian chestnut gall wasp (*Dryocosmus kuriphilus* Yasumatsu). For that, a strong monitoring program is ongoing at farm and landscape scale. In relation to the chestnut blight disease, new biological combat products are being tested with good results (<http://esa.ipb.pt/dictis/>).

Source: Marina Castro and Bruno Veiga (Instituto Politécnico de Bragança, Portugal), August 2017.

4. Agrof-MM TRANSNATIONAL MEETING IN GREECE

The latest [Agrof-MM](#) (Training in Agroforestry - Mediterranean - Semi-Arid Zones – Mountain) transnational meeting took place in Greece where the participants were welcomed by the President of TEI University, for an extended and rich training session.

It was the occasion for everyone to listen to presentations given by experts on different topics of interest (“Agroforestry in the new Common Agricultural Policy”, “Agroforestry research in Greece” and “New agroforestry systems”). With interactive workshops and discussions, the partners kept making progress about the way agroforestry trainings should be approached in the wake of the good work done during the [Agrof-MM](#) transnational meeting in Bulgaria. This session in Greece was finally completed when they had the interesting occasion of exchanging with young farmers before visiting their farms.

The field visit happened in Lamia, where the group arrived at a farm combining olive trees, chickpeas and aromatic plants. Dimitri Kitsikopoulos made a transition from polyculture to agroforestry in 2014: on his farm, members saw olive trees, almond trees and lavender and chickpeas. This young farmer was not short of good ideas as he also collects biomass to create compost pallets for a local school. Selling his products at his local shop is only one part of his activity as he is also very much involved in gaining and sharing knowledge with other farmers.

At the end of the week, partners were already planning the next training session. Stay informed through the [website](#) and social networks ([@AgrofMM](#), [Facebook](#) and [LinkedIn](#)).



Figure 4: Pictures taken during the AGROF-MM transnational meeting in Greece.

Source: AliénorEU team, September 2017.

5. AFINET PROJECT: MEETINGS OF THE REGIONAL AGROFORESTRY INNOVATION NETWORKS

Six regional agroforestry innovation networks (RAINs) of the [AFINET](#) (Agroforestry Innovation Networks) project met in different European countries (Portugal, Spain, France, Finland, Hungary and Italy) during September. These September meetings follow the earlier RAINs meetings in Poland, UK and Belgium in July, all together aiming at gathering and further developing useful information to help agroforestry farmers to establish and improve their agroforestry systems.

On 5th July 2017, the first RAIN meeting was held in Poland. The event was located in Popielno in headquarters of the Research Station of the [Institute of Animal Reproduction and Food Research of Polish Academy of Sciences in Olsztyn](#). The meeting was chaired by Robert Borek and Małgorzata Gałczyńska ([AFINET](#) coordinator for [IUNG-PIB](#) and Innovation Broker, respectively). Twenty six people (half of them were farmers) attended the event. As agroforestry is in a new concept for development of agriculture in Poland, all RAIN members were very excited about joint work in the [AFINET](#) project. More info [here](#).

The Belgian RAIN meeting took place on 10th July 2017. Twenty-one people, most of which being farmers, attended this meeting, that was organised at [ILVO](#) in Merelbeke (Ghent). The meeting started with a visit to an experimental agroforestry field at [ILVO](#), where a variety trial of hazelnut trees was recently established, and where the effects are studied of combining short-rotation coppice (willow) or hazelnut trees with laying hens on free-range use, animal welfare, soil conditions and plant growth. After the field visit, the [AFINET](#) project was presented and an interactive brainstorm exercise was held to identify the main bottlenecks and challenges that current and potential agroforestry practitioners are faced with. More info [here](#).

Two days later, the [Organic Research Centre](#) organised the first UK RAIN meeting at Elm Farm, Newbury, UK. A summary of the meeting was published in the [EURAF newsletter N°24](#).

On 12th September, the Portuguese RAIN meeting took place in Coruche ([Observatório do Sobreiro e da Cortiça](#)) and the Spanish RAIN met in Lugo (Galicia, NW Spain) at the [Campus Terra \(University of Santiago de Compostela\)](#). Under a relaxed and dynamic environment, the 30 participants in the Portuguese RAIN meeting identified and discussed innovations and bottlenecks found in a large diversity of traditional Portuguese agroforestry systems, such as silvopastoral oak based systems or grazed orchards. The list of innovations and bottlenecks produced by [Instituto Superior de Agronomia](#)

(ISA) in the next few weeks will be discussed between all of the network members, and validated in the 2nd meeting planned for January 2018. More info [here](#).

The Spanish RAIN meeting was attended by more than 30 stakeholders (farmers, foresters, farmers organizations, advisors, Rural Development technicians and officers from the Galician Innovation Agency and the Galician Office of Climate Change). To start with, there was a brief presentation of the [AFINET](#) project given by María Rosa Mosquera-Losada (project coordinator). Afterwards, some RAIN members explained their agroforestry projects to the audience (presentations are available [here](#)). After the presentations, the RAIN members took part in participatory workshops and brainstorming sessions to identify the main problems that agroforestry systems are facing in the region, as well as possible solutions and the lack of knowledge that should be addressed during the development of the [AFINET](#) project. In the afternoon, the RAIN members visited a silvopastoral system established under *Pinus radiata* D. Don and *Betula pubescens* Ehrh. More info [here](#).

The French RAIN meeting was organized by the [French Agroforestry Association](#) on 13th September 2017. The participants in this meeting concluded that genetic, techniques, quality and economics aspects should be considered in the next steps of the work.

On 14th September, the Finnish RAIN meeting took place in a farm called Putkisalo Kartano near Rantasalmi in the Finnish Lake district and the Hungarian RAIN met in Budapest. The Finnish RAIN meeting was chaired by Michael den Herder (Innovation Broker) from the [European Forest Institute](#) and Henri Vanhanen from [Natural Resources Institute Finland](#). Ten stakeholders (farmers, researchers, advisors) attended the workshop. The meeting started with a walk around the farm where the people could see how the farm works, witness sheep herding with a sheep dog in practice, and share experiences about farm management, agroforestry and management of wood pastures. After the farm walk, the [AFINET](#) project was presented to the participants followed by a presentation of the current status of agroforestry in Finland. During the workshop, the participants lively discussed about new innovative agroforestry ideas and selected the best ideas to explore further in the next interactive session. During this session, the participants discussed possible obstacles, solutions to overcome these obstacles and possible research needs for bringing these innovative ideas into practice. More info [here](#).

The Hungarian RAIN meeting was chaired by Andrea Vityi and Zsófia Fábíán ([AFINET](#) coordinator for [University of Sopron](#) and Innovation Broker, respectively). A total of 12 participants (5 practitioners, one governmental representative (Ministry of Agriculture), and 6 researchers) worked in groups to identified and discussed innovations and bottlenecks as well as to propose possible solutions.

Finally, the Italian RAIN meeting was held at the Municipality of Orvieto on 15th September 2017. The workshop was focused on the olive multipurpose system taking into account the whole olive oil supply chain. Twenty seven stakeholders participated at the RAIN, including farmers (12), multipliers such as members of trade associations and citizens (8), researchers (6) and policy makers (1). Endro

Martini (Alta Scuola Association) introduced and moderated the workshop. Following the welcome of the Mayor of Orvieto (Giuseppe Germani), Andrea Pisanelli and Claudia Consalvo (respectively Innovation Broker and Partner of the RAIN, [CNR-IBAF](#)) highlighted [AFINET](#) and the workshop's objectives. Pierluigi Paris ([AFINET](#) coordinator for [CNR-IBAF](#)) presented the benefits of agroforestry systems to mitigate climate change. Angela Augusti ([CNR-IBAF](#)) reported a study on the implementation of modelling to predict olive grove sustainability in view of climate change. Cecilia Cecchini ([University Sapienza](#), Rome) illustrated the potential use of olive oil chain residues for bio-materials. After the technical and scientific presentations, Endro Martini invited the stakeholders to form three groups and join three tables where to discuss, according the participatory approach, and identify bottlenecks, challenges and knowledge gaps affecting the olive oil supply chain. Each table focused on a specific issue related to the olive oil chain: climate and environment, socio-economy and policy. More info [here](#).



Figure 5: Pictures taken during the first meetings of the Regional Agroforestry Innovation Networks in Poland, Belgium, UK, Portugal (photo: António José Soares), Spain, France, Finland, Hungary and Italy.

Source: Małgorzata Gałczyńska (Innovation Broker from Poland, Institute of Soil Science and Plant Cultivation), Bert Reubens (Innovation Broker from Belgium, ILVO), Sally Westaway (Innovation Broker from UK, Organic Research Centre), Joana Amaral Paulo (Innovation Broker from Portugal, University of Lisbon), Antia Villada (Innovation Broker from Spain, University of Santiago de Compostela), Fabien Balaguer (Innovation Broker from France, French Agroforestry Association), Michael den Herder (Innovation Broker from Finland, European Forest Institute), Zsófia Fábíán (Innovation Broker from Hungary, University of Sopron) and Andrea Pisanelli (Innovation Broker from Italy, CNR-IBAF), September 2017.

6. MISCELLANEOUS

First Agroecology Europe Forum

The first Agroecology Europe Forum will take place in Lyon, France from 25th to 27th October 2017. The Forum is open to all kinds of actors and intends to foster interactions between various stakeholders such as scientists, practitioners, social movements, civil society and policy makers, by facilitating knowledge sharing and common action. An Agroforestry session is organized within the forum. More info [here](#).

Conference on Non-Timber Forest Products and Bioeconomy

The Finnish Natural Resources Institute and the Arctic Centre of the University of Lapland will host a joint conference covering basic and applied research about Non-Timber Forest Products (NTFPs) as a part of the bioeconomy. The Conference will be held during 28th - 30th November 2017 in Rovaniemi, Finland. More info [here](#).

2nd European Symposium on Pollarding

This 3-day event, open to all agricultural practitioners and stakeholders, natural resource managers and researchers, will take place in Basque Country, France, during 1st – 3rd March 2018. The symposium objectives are to establish a better understanding of the potential benefits of pollarding and to identify ways of extending its practice through exchange and dialogue. Abstracts should be submitted by October 14th 2017. More info about the call for contributions [here](#) and about the event [here](#).



4th European Agroforestry Conference

The 4th European Agroforestry Conference will take place in Nijmegen, Netherlands during 28th - 30th May 2018. Abstracts must be submitted before 15th December 2017. More info [here](#).



13th European IFSA (International Farming Systems Association) Symposium

The 13th European IFSA Symposium will take place in the Mediterranean Agronomic Institute of Chania, Crete, Greece during 1st – 5th July 2018. The overall theme of the symposium is "Farming systems facing uncertainties and enhancing opportunities". More info [here](#).

This is your newsletter! If there's anything you think should be included, please send suggestions to euraf@agroforestry.eu for the next issue.

This newsletter is carried out in collaboration with the European [AGFORWARD](#) and [AFINET](#) Projects.

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