Panel session: Agroforestry

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Abstract: Agroforestry is the practice of deliberately integrating woody vegetation (trees or shrubs) with crops and/or animal systems to benefit from the resulting ecological and economic interactions. Existing research indicates that appropriate application of agroforestry principles and practices is a key means by which the European Union might achieve more sustainable methods of food and fibre production whilst producing both profits for farmers and environmental benefits for society.

One area of agroforestry innovation is the promotion of intercropping or grazing within "high-value tree systems" such as orchards or groves of fruit trees (e.g. olive, carob, pine-nut, walnut, almond, chestnut, apple, pear), or plantations of trees grown for high value timber (e.g. walnut and wild cherry). Although ecological and socio-economic contexts vary, many of these systems help to retain and maximise the use of light, water and nutrient resources. In the UK and France, the introduction of sheep to apple orchards can minimise the need for mowing and provide animal feed for sheep production enterprises. In south-west France, pollarding is still a living practice linked to the management of a traditional hedgerow network known as "bocage". In Spain, hardwood species are commonly grown using rotations of up to 50-60 years, and establishing a legume-based mixed pasture understorey and introducing sheep can provide financial and environmental benefits. Agroforestry with chestnut (Castanaea sativa Miller) is a traditional land use system in North-west Spain. Chestnut groves can be grazed with pigs when the fruit falls (November) and chestnut woodlands are also an excellent habitat for the commercial production of edible mushrooms. Greece produces over 0.8 million tonnes of oranges annually (1.1% of total global production) and one agroforestry system in Crete is the intercropping of orange trees with chickpeas. Lastly throughout the Mediterranean, olive trees are typically found alone or in orchards. However often the olives are grown with other trees such as carobs (e.g. in Crete), almonds, walnuts, apricots, figs, poplars, or plums either within the same field or along the boundaries of the olive orchards, and livestock may be used to graze the understorey vegetation or crops. AFINET is one of the 17 thematic networks currently existing in Europe that tries to be a nexus between National Rural Networks and H2020 multiactor approach research projects. AFINET is a thematic network that includes 9 regional agroforestry network composed by at least 30% of farmers but also other types of stakeholders (policy-makers, mulitpliers...). Stakeholders found that technical issues, economic evaluation, education and policy were the main challenges to overcome to extend the use of agroforestry in Europe.

Acknowledgments

This research was part of the AGFORWARD project (Grant Agreement N° 613520) is co-funded by the European Commission, Directorate General for Research & Innovation, within the 7th Framework

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Programme of RTD, Theme 2 - Biotechnologies, Agriculture & Food. The views and opinions expressed in this report are purely those of the writers and may not in any circumstances be regarded as stating an official position of the European Commission. It is co-funded by the Hellenic Ministry of Education, Research and Education, General Secretariat for Research and Technology. This research is also cofounded by the AFINET project under agreement No 727872.

Proposal for the organization of the session:

Within the framework of the AGFORWARD (FP7), AFINET (HORIZON 2020) and AGROF MM (ERASMUS+), projects we had the opportunity to interact a lot with local stakeholders. We intend to focus on the questions, concerns and opportunities raised after these interactions. Specifically, we intend to raise/ask the following questions:

- 1. What is agroforestry?
- 2. Does it involve any innovation?
- 3. Why is agroforestry different from other land use systems?
- 4. Why should agroforestry be promoted?
- 5. Is agroforestry the ideal option for every case? Where should it be implemented?
- 6. What are the downfalls of agroforestry?
- 7. How important are policy and education for the implementation of agroforestry?
- 8. Questions? Comments or additions?