

Legume-supported cropping systems for Europe

Project Newsletter 3

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Legume Futures brings together 18 research organisations in 12 countries to develop legume-supported cropping systems. The project aims to help reduce Europe's dependence on fertiliser nitrogen and imported plant protein. Legume crops also have biodiversity benefits.

This newsletter comes at the mid-way stage of the research as attention turns to delivering results. It coincides too with intense debate about the reform of the CAP for the phase 2014 to 2020. With all this in mind, this newsletter is focused particularly work to raise the impact of our research.

Contact: Dr Bob Rees. (bob.rees@sac.ac.uk).

Legume Futures at the European Parliament

Christine Watson (SAC) represented Legume Futures at a conference in the European Parliament on crop rotations on May 29. The [meeting](#), organised by Friends of the Earth Europe, the Pesticide Action Network Europe and the organic food and farming group, IFOAM EU, was hosted by Austrian MEP Karin Kadenbach and German MEP Martin Häusling. Mr Häusling has led debate on protein crops in the Parliament's Agriculture and Rural Affairs Committee. Christine's presentation is available on www.legumefutures.de

'Greening' and the proposals to link 30% of the farm support payments to on-farm measures to enhance the environment was the focus of the meeting. These 'greening' measures include a requirement that parts of the farmed area (suggested 7%) are actively managed for ecosystem benefits, that permanent pasture is protected, and that cropping is diversified.

Christine Watson: "What appears to be straightforward to most agronomists is in fact very complicated for legislators. I got a real sense of a policy debate struggling to get to grips with the complexity of agricultural science and the real opportunities identified by science across Europe."

Putting the technical difficulties to one side (and there are many), the meeting indicated that science has played only a minor role so far. Christine made it clear that increasing diversity of cropping brings benefits,

especially if species from different plant families, including legumes, are grown in sequence. Current debate centres on a requirement to have three different crops on a farm with no one crop cover exceeding 70% or being less than 5% with no requirement to rotate crops. Such mild measures will have little impact on legume production, or annual cropping generally. Despite this, resistance to the proposals is significant. On one side, well established farm lobby groups are arguing against significant change while groups representing small farms and other civil society NGOs with diverse backgrounds lead the case for reform. The MEPs are in the middle. The debate partly draws on science, but generally the scientific community has not participated directly.



Legume Futures at the EU Parliament (Christine Watson third from left, Martin Häusling MEP second from right)

A broader public debate about the reform of the CAP and how public money is used to influence the use of agricultural land is required. Science and especially Legume Futures have a greater role to play in this debate. Each partner can help raise awareness of the effects of legume-supported cropping systems and the relevance of real reform. To this end it is proposed that we lead in preparing a declaration to be made at the ESA conference in Helsinki setting out scientific support for measures to improve the use of crop rotations and sequences.

Contact: Donal Murphy-Bokern (donal@murphy-bokern.com)

Second Annual Consortium Meeting in Athens

All but one partner, along with members of the independent Scientific Steering Committee, attended the two-day second annual consortium meeting at the Agricultural University of Athens in March.

The meeting was designed in particular to foster the participation of partners running field experiments. It centred on working groups that addressed key methodological challenges. This included a clinic organised by ZALF to give the modellers the opportunity to discuss the experimental data directly with partners providing the data. Site measurement and data handling to support the use of DNDC in the assessment of the environmental impacts was the subject of a second working group. A third examined estimating of agricultural biological nitrogen fixation in Europe. Working groups on day 2 looked at modelling linkages and at how the experience of agronomists can be best harnessed to support case studies.

The meeting clarified important details of how results and measurements at partners' sites flow into projects key outputs. As a result of the ZALF clinic, we have made a lot of progress in developing databases on the current use of legumes in selected countries. This was followed up by meetings between Moritz Reckling (ZALF), Goran Bergkvist, Birgitta Båth and Bodil Frankow-Lindberg (SLU) and Christine Watson (SAC) in Uppsala in June.



Members of the Legume Futures consortium and scientific guests in Athens.

The opening overview plenary sessions reflected a year of effective work collecting data at the Legume Futures sites and it is clear that partners are fully and effectively engaged in gathering the data required for modelling.

The meeting included a poster session where results from the field sites were presented. This demonstrated the breadth of experimental activities and results coming through in Legume Futures. The site-based work is progressing effectively and the earlier attention to standardising experimental

methods is yielding benefits. A wealth of experimental results is emerging from sites. The project is moving from the set up and main data gathering phase into the publication phase. Attention now turns to delivering results.

Delivering impact from Legume Futures.

As we now enter the delivery phase, we need to take stock of the challenging communications programme we are to deliver. Key approaches include:

Academic publications
The Legume Futures Book
Our website (www.legumefutures.de)
Legume Futures Reports
Legume Futures Briefings

We also have a programme of direct interaction with key users. This includes on-going interaction with policy-makers (such as the meeting in the EU Parliament) and interaction with local users through Local Stakeholder Fora.

Donal Murphy-Bokern summarised progress at the Athens meeting: "awareness of our work in the policy community in particular is high and this is linked to the current debate about reform of the CAP. There is a lot expected of this EU project. Our success in meeting expectations will depend on each partner contributing their bit to all our publications. The agronomic and economic knowledge and experience of partners is potentially very valuable and we have the approaches in place to harness this".

Legume Futures Reports will provide full access to the details of our key research results. The first report detailing the measurement methods has been published. Complementing these, Legume Future Briefings provide short summaries relevant in particular to policy makers and the first has been produced for a meeting at the EU Parliament. Sixteen partners are contributing to the Legume Futures Book and work is now well underway to meet the target of having a first complete draft by the end of February 2013 to publish by February 2014.

Legume Futures at the ESA Congress in Helsinki

Members of the Legume Futures consortium are playing leading roles in the European Society of Agronomy Congress in Helsinki on 20 - 24 August. The Congress was programmed in our proposal as an important conference event in our project. A full congress session is dedicated to legume crops.

Those wishing to attend can register at <http://www.esa12.fi/index.htm>



Legume Futures is a collaborative research project supported by the European Union under the Seventh Framework Programme.
Contact: Dr Donal Murphy-Bokern (donal@murphy-bokern.com)

www.legumefutures.de

