Legume Futures: for more diverse and sustainable farm systems

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Introduction
- Nitrogen (N) is essential for optimal crop production
- Large quantities of man-made N-fertiliser are applied in arable-grass systems
- This is expensive and environmentally damaging (e.g. greenhouse gas emissions)
- Costs include ecosystem damage and global movement of N-rich plant products

The challenge
- N applications are not essential; e.g. clover has low N-dose response
- Biological nitrogen fixation (BNF) should be exploited more widely
- Plants of the family Fabaceae (legumes) can provide N naturally via BNF
- However, legume cropping has declined in Europe over the past 20 years

Legume Futures
- Is an 18 member consortia
- Is funded by the European Union under FP7
- Started on March 1st 2010 for 4 years
- 18 case studies (see map) n established legume trials

Legume Futures - Main Aims
- Design novel legume-supported cropping systems
- Which are tailored for Europe's regions
- To reduce environmental impact whilst optimising production
- Improve supply chains/livestock feeding (including aquaculture)

Specific Research Objectives
- Will include the use of study-site demonstrations
- Legume Futures demonstration sites in Scotland include:

At SCRI - The Living Field - http://livingfield.scri.ac.uk/welcome
- Balruddery Farm - http://www.scri.ac.uk/research/sustainability/balruddery

At SAC - Craibstone Farm - http://orgprints.org/6755/
- Bush Estate - http://www.sac.ac.uk/research/centres/farms/bush/

- Note your interest by emailing: legumefutures@scri.ac.uk

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Register for updates at www.legumefutures.eu