THE

ENERGY, EMISSIONS, ECOLOGY AND AGRICULTURAL SYSTEM INTEGRATION (EASI)

PROGRAMME

Background

The increased level of concern in the public domain about energy use and climate change has resulted in the emergence of interest in the potential for farms to both provide energy through biomass production (biofuels, biogas etc) and as a route for carbon sequestration.

Much of this interest has taken on the aura of a panacea as farmers have rushed to plant "energy crops" and extravagant claims have been made about the potential of carbon sequestration on farmland. There is a danger therefore that facts and rational decision-making will be casualties in a headlong pursuit of the latest "fashion", along with truly sustainable conservation and landscape management and all notions of balanced agricultural production systems.

Nonetheless, it is clear that much can be done on-farm to improve the energy efficiency of agricultural systems in terms of enterprise mix and operational efficiency. It is also clear that overall land use could, in many cases, take on the functions of energy generation and carbon sequestration in addition to the existing ones of food production, conservation, biodiversity, leisure and landscape management. This would really be multi-functional land use.

There is though a real need to develop a method of assessing the interaction of these multi-functions at farm level in order to; a) understand these interactions and the impacts they might have on each other, b) optimise the overall benefit, c) assess the economic impact and potential, d) develop an appropriate management plan.

The Programme

The aim of the programme is to deliver a range of advisory, information and educational outputs appropriate to selected constituencies based upon the development of a systematic protocol at farm/landuse level for:

- The evaluation and reduction of energy use and climate relevant emissions
- Assessing the potential for energy production
- Assessing the potential for carbon sequestration
- The protection and enhancement of biodiversity and landscape
- Assessing the associated economic factors within farming systems and land use at farm level
- Integrating these factors into a farm/landuse management plan

In order to achieve this, the programme:

- Will collate, evaluate and disseminate information on all of the above factors.
- Will generate research topics
- Will evolve an advisory role through individual delivery, seminars and workshops to selected constituencies
- Will develop commercial or funded research dissemination

Staged delivery

The programme will be undertaken in four stages -

- **Stage 1** The Luddesdown Organic Farm Pilot Project in which the evaluation and advisory protocol will be developed and initially tested
- **Stage 2** Following further review and refinement the protocol will be evaluated on other Organic System Development Programme farms (long-term organic farms and advisory clients)
- **Stage 3** After further review and refinement the pilot will be extended to more farms in conjunction with Institute of Organic Trainers and Advisors (IOTA), an association directed by Mark Measures for improving the quality of organic advice and training.
- **Stage 4** Dissemination; although dissemination of information will take place throughout all stages (as will the generation of relevant research topics) this stage will be a focussed effort to encourage the use of the protocol in order to ensure the sound and sustainable integration of farming, biodiversity, emissions reduction and energy production.

The Organic Research Centre – Elm Farm

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