

MONDAY 17TH JANUARY 2011

09.30 – 11.00 IOTA organic advisors' meeting

10.30 – 11.30 REGISTRATION and TEA/COFFEE

11.30 – 13.00 OPENING PLENARY

The changing policy environment and impacts on organic producers

2010 has seen a new coalition government in the UK and the launch of the full-scale debate on the future of the Common Agricultural Policy. Organic producers will be affected by the changes, for better or for worse. This session will examine some of the key changes taking place and the case for continuing support for organic farming as means to deliver environmental and other public goods.

Chair: Lawrence Woodward (ORC)

David Baldock (IEEP): Shifting the focus of CAP to public goods and the contribution of organic farming

Helen Browning (National Trust/Soil Association): An organic farming and environmental NGO perspective on the future of UK agricultural policy.

Agricultural and environmental policies under the Coalition Government, and in the world at large, seem somewhat at odds. There is both a strong ambition for enhanced productivity and an inherent empathy with agribusiness, and a desire to be the 'greenest government ever'. Can these tensions be resolved at all, and what role does organic production have in helping to do so? Why has the organic approach been so disregarded in policy circles? What can we do to bring our principles to the table to meet the current and future needs of society?

Nic Lampkin (ORC): Organic farming policies in Europe and future prospects under CAP reform

Since the early 1990s, organic farming has been supported across Europe as an agri-environmental measure in recognition of its environmental benefits. Significant rural development and other support has also been provided to help organic marketing, promotion and training initiatives. Now most organic land in Europe receives such support, but the levels of payment vary widely between and even within countries, with maintenance payments ranging from €0/ha in parts of the UK to more than €300/ha in countries like Austria. Now some countries are considering withdrawing specific organic support to save money. Is it time to consider transferring organic support from local, variable and vulnerable agri-environment schemes to become a core part of a greener single farm payment, reflecting the common EU organic regulations and the need for a level playing field in the market?

13.00 – 14.30 Lunch/networking

14.30 – 16.00 WORKSHOPS 1

Soil structure, biological activity and management

(Jointly organised with IOTA and OGA)

The aim of the session is to provide practical recommendations from recent research showing how to improve soil fertility through green manuring, improving soil structure and achieving higher levels of biological activity.

Chair: Mark Measures (IOTA)

Christine Watson (SAC): Improving phosphate availability: green manures and better timing

Improved management of phosphorus is an important goal for organic farming. Crop plants differ in their ability to access phosphorus from soil often as a result of the properties of their root systems. This presentation will explore how different crops access soil phosphorus and how we can use that understanding to design more efficient crop rotations.

Julia Cooper (Nafferton Ecological Farming Group): Soil structure, management and effect on nutrient availability and crop production

Poor soil structure is increasingly recognized as a problem for UK farmers. Recent studies have shown that soil structure (as indicated by soil compaction) is deteriorating dramatically in UK soils. This may be a result of modern farming practices, including the use of heavy machinery, deep tillage, intensive rotations, and reduced organic matter inputs. Poor soil structure can reduce crop productivity through effects on nutrient availability, soil water supply, and root growth. In this presentation the causes of poor soil structure and how this can affect nutrient supply and crop production will be discussed. Simple ways to assess the structure of your soil will be presented as well as key strategies for improving soil structure. This should promote a lively discussion where those in attendance can share their experiences and observations about the impacts of poor soil structure on crop performance.

Paul Gosling (University of Warwick): Managing soil life for crop production

Despite over 100 years of study we still know surprisingly little about soil life and even less about how we might manage it to improve crop production. There has been considerable interest in using specific products containing one or more soil organisms to control disease or enhance nutrient uptake and such microbial products have been on the market for many years. However, their effectiveness is patchy and uptake has been weak. Understanding of how we might manage soil life more generally lags even further behind. One group of soil micro-organisms that has received special attention is the arbuscular mycorrhizal fungi. These microscopic fungi form a symbiotic relationship with the roots of many crop plants, aiding nutrient uptake and protecting against soil borne diseases. Our understanding of their ecology has advanced at a great rate in recent years and it may soon be possible to offer truly effective mycorrhizal products. More widely, the application of 'Omic' technologies is bringing new insights and greater understanding of soil microbial life which promises more effective products to enhance crop growth and which may eventually lead to more effective management of soil microbial life in the field.

Heather McCalman (IBERS, Aberystwyth University): The Pro Soil project

The concept that the quality of agricultural food products is based on the health of the soil is one central to organic farming. Improving soil health gives the potential to improve the efficiency and quality of agricultural products throughout the supply chain industry. The Prosoil Project aims to; develop producer-led co-operation across Wales to better understand and improve soil management to optimise farm productivity, to determine scientifically the impact of improving soil health on forage and livestock productivity and quality, and to effectively disseminate key findings throughout the agricultural industry. At IBERS, plot and field work is evaluating a range of soil management methods to improve soil health, while the commercial development farmers are working with GDC to explore the effects of their chosen soil management method relevant to their farm system. All will include soil analyses and recommendations based on both the RB209 and Base Cation Saturation Ratio systems. The eight Commercial Development Farmers are looking at how their farming practices affect soil health and monitoring management options to improve soil health; including soil structure, earthworm populations and soil nutrient availability. The farmers are making field-scale measurements of soils, forage yields, forage quality and, where possible, animal performance, this information is collated and interpreted in a practical context by GDC IBERS. The farms represent different sectors of agriculture and cover a range of soil types and climatic conditions. The network of farmers meet to discuss key 'prosoil' issues and to share knowledge and experience. On farm open days demonstrate ways of improving soil health to other land managers and industry contacts.

**Ruminants: feeding for health and profit?
(Jointly organised with OMSCo and Graig Producers)**

This session aims to illustrate with practical examples the importance of high quality forage in feeding cattle for milk and meat production.

Chair: Bob Kennard (Graig Producers)

John Bax (dairy consultant): Improving health, performance and longevity in ruminants

Successful ruminant production depends upon the integration of a range of inter-linked factors. Optimising nutrition is central to any system and two of the most important factors within this are forage quality and rumen management. Get it correct and cows can be healthy and productive; get it wrong and there can be a cascade of metabolic stresses and problems. In an organic system it is essential, and possible, to produce rumen friendly forages with high intake potential. The direct benefit is the ability to reduce the use of more expensive feeds, but the indirect benefits are cumulatively much greater. The rumen has evolved to process forage, but this depends upon the activity of a complex microbial community. However, when increasing amounts of concentrate feed is added to the diet, the balance of the microbial flora changes which will reduce rumen pH and this can trigger a series of unwelcome metabolic responses including lameness, reduced intake, and reduced immune status. The converse however is an opportunity to reduce concentrate inputs and optimise forage use. This can be the basis of a strategy to increase milk from forage, reduce crude protein contents of the total diet, improve immune status and reduce levels of involuntary culling.

Markus Hohl (dairy farmer, Devon): How to produce 5500 kg milk from forage?

The aim at Barton Close Farm was to improve cow health, longevity and milk production from home grown feeds. The first step in the cycle was to improve soil health and fertility. The use of winter cover crops, feeding during the summer and adding organic matter has resulted in a large population of soil microbes and worms. It is essential to prevent soil compaction and aerating the soil and taking care during wet conditions keeps the soil microbes healthy. A range of forage crops are grown both as an insurance policy and to provide the right mix of energy and protein within rumen friendly forages. This winter, grass/white clover, spring barley/pea wholecrop, undersown spring barley wholecrop, spring triticale/lupin wholecrop, crimped grain and fodder beet is available for the cows. Feeding management focuses on rumen health and ensuring the cows always have fresh mix in front of them. Current feed intakes are 26kg DM/cow/day. The result is high levels of milk from home grown feeds and improved health and fertility. Lactations per cow has increased from 2.4 to 7.0, and the herd now has three cows with over 100,000 litres with a daily lifetime production of 23.3 kg.

Jeremy Hoskins (beef farmer): Finishing beef cattle on forage only: how and why?

At Park Corner Farm near Cirencester the offspring of 75 native breed crossbred cows, that have been put to the Charolais bull plus additional bought in calves (autumn born) are finished on a grass only diet. This is a challenge as the Cotswolds does not grow grass well in later summer and the environmental schemes (archaeological ESA) have influenced system. Two year red clover is used to make high quality silage that allows finishing cattle on a grass only diet. The main principles are to try and make the best possible silage and regularly weigh and handling the cattle.

Climate change and sustainability: tools to improve farm performance

The aim of this session is to review the tools currently available for farmers who wish to assess performance in this area and discuss surrounding issues.

Chair: Tony Little (Organic Centre Wales)

Rachel Taylor (Bangor University): Carbon calculators and sustainability assessment tools for farms

As we have become more aware of the impact that our domestic and business activities have on the environment, it has become more important that we are able to measure and monitor that impact. In recent years a number of calculators have been developed to enable us to do this. A few of these include several environmental resources (soil, water and biodiversity etc), however most focus on the balance of greenhouse gases (GHG) emitted and sequestered by the farm, sometimes known as the carbon footprint. This presentation will provide an overview of the assessment methods/tools that are available, to provide some clarity for those thinking about carrying out an evaluation of their holding. The presentation will highlight the advantages and disadvantages of the different assessment methods/tools and some of the challenges of accurately measuring a farm's performance in this area. Particular issues relating to the measurement of organic systems will also be highlighted.

Laurence Smith (ORC): Moving beyond carbon: assessing the public goods from organic farming

The role of farms as providers of public goods has long been recognised, and measuring performance in this area is of increasing interest to policy makers. The Organic Research Centre has been working on this topic in recent years, through the development of sustainability assessment tools. This process began in 2005 through the Defra project on Quality and Environmental Benchmarking for organic agriculture. The Energy, Emissions, Ecology and Agricultural Systems Integration Project (EASI) project continued the work in this area through developing a tool to compare farms' resource use efficiency and greenhouse gases. The latest outcome from this process is a 'Public Goods' assessment tool, developed through a Natural England funded project which aimed to evaluate the benefits accruing from organic management and the addition of an Organic Entry Level Stewardship (OELS) agreement. This presentation will describe the development of the above tools, outlining the processes engaged with and lessons learned through the Research Centre's work in this area to date. Some of the results from the 40 organic farms assessed with the Public Goods tool will also be presented, in addition to considering how the Research Centre will build on the existing work in this area within future projects.

Tim Downes (dairy farmer): Carbon footprinting, a farmer's perspective

The presentation will cover Tim Downes's experiences of using a range of carbon footprinting tools on his organic dairy farm, including details of how useful they have been in terms of identifying areas for improvement. Tim will also present information on the innovative technical/practical solutions he has implemented to improve sustainability, and how these measures have influenced the farm's profitability. The presentation will also highlight some of the wider issues in terms of measuring the greenhouse gas efficiency of agricultural production systems, and the implications of this for the future of dairy farming. Tim will also cover the issue of comparing results that are delivered by the different assessment methods and how suitable these are for capturing the range of benefits provided by organic systems.

16.00 – 16.30 Refreshments**16.30 – 18.00 WORKSHOPS 2****Arable and field veg: improving yield through better soil management
(Jointly organised with IOTA)**

New ideas on improving crop yields and maintaining soil fertility, drawing on practical experience and the latest research in manure management, rhizobia inoculation, fertility building and green waste.

Chair: Elizabeth Stockdale (Newcastle University)

Francis Rayns (Garden Organic): Yield response from using green waste compost and manures

Traditionally organic farmers and growers have made much use of farm yard manure; often non organic because of a lack of availability. In the past ten years there has been increased use in the use of 'green compost' (derived mainly from park and garden waste) and it is likely that in the future anaerobic digestate will become more readily available (although there are issues surrounding its suitability for organic production). This talk will present the findings from experiments that have been done at several sites in England to evaluate the effect of different manures and composts on aspects of soil fertility and crop performance. Green waste compost is an excellent source of potassium and some other nutrients but the nitrogen it contains is in a very unavailable form. This means that it contributes to soil organic matter and so can bring benefits to soil physical characteristics (eg water holding capacity and workability). The nitrogen in manures, even composted ones, can be much more readily utilised by crops. As a result the timing of application is critical if losses by leaching and volatilisation to the atmosphere are to be avoided. If nitrogen supply is the main reason for manure application then the use of a leguminous green manure should be considered as an alternative.

Peter Mejnertsen (Knowledge Centre for Agriculture, Denmark): Managing manure: experience and ideas from Denmark

The need for nitrogen to cereals depends on the previous crop and which cereal you want to grow. We will look on the optimal distribution between spring- and autumn sown cereals. Which technique for slurry application is used in Denmark and what is the value of timing.

Steve Wilcockson (Nafferton Ecological Farming Group): Effects of manure application and rhizobia inoculation on yield

The BOB project evaluated effects of variety and fertility management on yield, grain quality and breadmaking performance of spring wheat, grown according to organic standards from 2006 to 2009, on organic farms in Berkshire, Norfolk and Northumberland. Campden BRI. assessed breadmaking performance. Variety; rates (125 and 250 kg/ha N in 2006 and 2007 and 170 kg/ha N in 2008 and 2009) of FYM compost, green-waste compost and pelleted, composted chicken manure; foliar applied sulphur (one site (Norfolk) in 2008); inoculation of clover in the preceding ley with rhizobia followed by compost amendment prior to sowing wheat (2005, 2008 and 2009) were evaluated. Treatment effects varied from site to site and season to season. Paragon, Amaretto, Granary, Fasan and Tybalt yielded similarly, but Zebra and AC Barrie were very susceptible to disease (yellow rust and powdery mildew respectively). There were significant yield responses to some fertility treatments and at particular sites as follows: composted chicken manure pellets, Norfolk 2008: FYM compost at 170 kg/ha N, Norfolk and Berkshire 2009: increase from 125 to 250 N kg/ha compost, Berkshire 2007. Foliar applied sulphur had no effects on yield or quality or disease in Norfolk 2008. In 2005, rhizobia inoculation increased spring wheat yield and protein content significantly, but not in 2008 and 2009 at any of the sites.

Thomas Döring (ORC): Nitrogen supply characteristics of ley and green manure species and mixtures

Nitrogen availability is one of the key factors affecting productivity of field crops. Organic rotations rely strongly on a fertility building ley phase, using leguminous plant species in order to provide nitrogen to the subsequent crop. However, information on

the nitrogen supply characteristics of many leguminous species is relatively scarce or not readily available in English language publications. Building on a comprehensive database of German, French and UK legume trials, this talk will provide overview information on the fertility building value of various species, including lesser known species. The UK data includes information gathered in the Legume LINK project which is trialing several different legume species both in monocultures and in a complex mixture. A further problem in fertility building is a frequently occurring mismatch of nitrogen supply and demand. After incorporation of the ley, the decomposition processes of the plant material frequently lead to high nitrogen availability when demand by the next crop is relatively low, resulting in nitrogen losses. Conversely, later in the season nitrogen demand of the growing crop is frequently higher than nitrogen availability provided by the ley. Using mixtures of legume species which decompose at different rates is therefore expected to improve nitrogen availability throughout the growing season.

Novel horticultural crops and genetic resources (Jointly organised with OGA)

This session will explore the potential for the production of exotic vegetables in the UK and the preservation of genetic diversity in established crops.

Chair: Margi Lennartsson (Garden Organic)

Anton Rosenfeld (Garden Organic): **Sowing new seeds: the potential of growing exotic vegetables in UK**

Over the past 40 years, there have been significant changes to the eating habits of the UK population. Factors such as increased diversity of cultures and overseas travel becoming more affordable have resulted in people being exposed to a far wider range of foods than before. This has led to increased demand for exotic and non-traditional produce. Presently the majority of this is imported, and on the most part, there has been little attempt to grow these crops commercially in the UK. However most are unaware that we have a valuable resource of knowledge and varieties held by populations within ethnic communities who are growing many of these crops successfully for their own consumption. A new project (www.sowingnewseeds.org.uk) led by Garden Organic, funded by the Big Lottery and the Brook Trust aims to capture, preserve and make this resource more widely available to people. First indications are that not only is it possible to grow non-traditional crops such as dudi, calaloo, green chickpeas and shark fin melons outside in our climate, but that some of the varieties that have been grown and saved over generations are better adapted to UK conditions than the commercial seed available. This really highlights the huge potential of this resource to the growing community.

Phil Sumption (Garden Organic) and **Sally Howlett** (ORC): **Genetic resources and plant breeding: reporting from the Leafy Vegetable Project**

The opportunities and potential of growing heritage varieties will be presented and discussed. The four year EU-funded Leafy Vegetable project brought together NGO's, such as Garden Organic's Heritage Seed Library (HSL), Arche Noah of Austria and Pro Speci Rara of Switzerland, with universities, seed companies and gene banks. Living and gene bank collections across Europe of leafy vegetables (Lettuce, chicory, endive, spinach, rocket and lamb's lettuce) were characterised, evaluated and analysed for their potential. HSL varieties of lettuce out-performed many commercial standards for taste and mildew resistance. What is the potential of growing heritage varieties for sale and what are the likely implications of the the new regulation on amateur and conservation vegetable varieties? A newly launched project to explore strategies for plant breeding and management in organic and low-input arable and vegetable systems (SOLIBAM) will also be introduced in this session, outlining its aims and scope.

Scott Sneddon (Scott's Garden): **Modern varieties**

I will look at the roles alongside the pro's and con's of utilising modern crop cultivars in organic horticultural systems. It is not intended to be in depth discussion of modern breeding techniques and genetics but more to stimulate discussion as to where these new cultivars can come into their own and provide benefits previously unseen by the grower. As growers we all encounter situations each growing season whereby a crop line just does not come up to standard or fails even to provide a viable yield this of course can be due to a multitude of variables such as the weather, nutrient availability or predation by pests and diseases such as Aphids and fungal infection. Obviously modern breeding cannot overcome the pressures present to growers by the challenges that climate produces but has allowed growers to grow crop lines previously seen as a no go such as sweetcorn and butternut squash in the UK but by far the biggest benefit is seen in the increased resistance to pests and diseases. This can be seen in the resistances to mildew in lettuce and onion cultivars, rust tolerance in leeks and increased blight tolerance in potatoes to name but a few. Developments in lettuce breeding programs has seen the release of cultivars that yield many uniform sized leaves from a single cut which allows the easiest production of mixed salad bags. I hope that this segment can highlight some of these valuable benefits that we as growers can utilise thanks to modern breeding.

Non-ruminants: Feeding from the range and alternative feeds

Rethinking the system – moving away from substitution to what the range and alternative feeds can provide.

Chair: Anna Bassett (consultant)

Jos Houdijk and colleagues (SAC): **Amino acid composition and digestibility of home-grown pea/bean varieties**

Reliance on imported soyabean meal (SBM) increasingly threatens the sustainability of conventional UK pig production systems. SBM is already restricted for organic producers due to their inability to use solvent-extracted oilseed products and genetically-modified feed ingredients. Therefore, viable home-grown protein sources as an alternative to SBM are required. UK-grown peas and faba beans are such potential protein sources. We have screened SBM and selected pea and faba bean varieties for their amino acid (AA) profiles. We also assessed their ileal AA digestibility through poultry digestion trials, which represent an effective means of rapidly ranking and screening small quantities of legumes for monogastric farm animals. Whilst AA digestibility of peas is consistently higher than that of beans, and for specific AA comparable to that of SBM, useful differences between varieties of peas and faba beans were not observed for both AA composition and digestibility. This suggests that selection of peas and faba

beans for use in pig feed may not need to be variety specific. However, both peas and faba beans are more deficient in the essential amino acid methionine than SBM. Thus, compared to SBM-based diets, pea or faba bean based diets for growing pigs require more supplemental AA to meet AA requirements, through use of synthetic AA and/or complementary diet ingredients.

Mike Gooding (FAI): Feeding pigs from the system: silage and other feeds

We need to change the way systems are evaluated to what goes in : what we get out, and the balance in a 3E's approach to maximising that value, and we need to be very clear where advice is coming from - the whole future will look very different, so we cannot base evaluation on current practise. We should apply some simple common-sense and open minded approaches, consider what is going to happen to input costs, consider what is likely to happen to retail prices, where Government pressure will be on keeping inflation down, and the likely margin flow to primary production. The good news is that the drive for input cost control (if you take the 3E's approach) is most likely to also positively affect environment and ethics. The FAI pig project has tails on pigs as its primary objective, with no tail biting achieved by identifying natural pig 'wants', identifying outcome measures for animal welfare, and evaluating the importance of diet and economic performance. This is likely to result in pig production moving from east to west, an easy start for young farmers and lower risk for multi enterprise units. The implications for organic status and for other non-ruminants such as carp will be examined, with key driver being efficient use of resources.

Gerald Osborne (poultry farmer): Feeding poultry with enhanced range: practical experiences

Lawn Farm has 4000 layers and rears its own pullets from day old. Welfare is of prime importance, especially encouraging good free ranging of the birds. The talk will focus on how this is achieved on the farm, including a new rearing regime which is being developed in conjunction with Stonegates and the University of Bristol.

**Communicating with consumers:
the Farmer-Consumer Partnership project and ethical values**

To better understand consumers' preferences about different attributes and values of organic products and why organic companies decide to go for ethical certification. The session will feature the new farmer handbook of the Farmer-Consumer –Partnership funded by CORE organic.

Chair: Andrew Jedwell (consultant)

Susanne Padel (ORC): The Farmer Consumer Partnership project and marketing handbook

In the current organic market most consumers have little contact with the organic farmers who have produced their food and many people feel that the underlying principles of the organic movement are coming under increasing threat. Yet there is growing interest among today's consumers in the wider ethical principles which underpin organic agriculture, such as fairer working conditions (e.g. fair trade products); higher standards of animal welfare (e.g. freedom food products) and the preservation of tradition and landscapes through their purchasing decisions. The presentation will look into values for which valid claims of additional ethical aspects of organic production can be made. It will show results of a number of trials with organic consumers addressing the question which values organic consumers are interested in and whether they are willing to also pay more for products with 'added values'.

Sue Fowler (Organic Centre Wales): Consumer Engagement: Welsh perspectives

This presentation will cover aspects of work of the Better Organic Business Links (BOBL) project, run by the Organic Centre Wales, which supports the development of organic supply chains in Wales. BOBL commissioned research into the attitudes of 1400 consumers to organic produce and buying behaviour across 13 categories of food and non-food products, with the aim of providing organic businesses in Wales with a better understanding about consumer attitudes to organic food and farming, and how they can be influenced. When asked what organic means, three quarters referred to the chemical free way in which organic food is produced, and around one in five respondents stated that organic food was produced naturally. Improved animal welfare was the most recognised benefit of organic produce with around three quarters of shoppers agreeing with the statement *organic farming means better standards of animal welfare*. Around 7 in 10 shoppers agreed that *producing food organically allows wildlife to flourish* and over half agreed that *producing food organically helps reduce our carbon footprint*. The health benefits of organic food were also widely recognised with around 6 in 10 shoppers agreeing that *organic produce is healthier for you*. However, for a majority of shoppers (>64% in Wales) issues of provenance appear to override organic concerns. The talk will also report from activities in the BOBL project of providing support to businesses who wish to examine the benefits and implications of ethical business behaviour. The Food Ethics Council will run workshops in Wales and a bilingual 'Ethics – a toolkit for Welsh organic businesses' booklet, is being produced.

Roger Kerr (Calon Wen): Why did Calon Wen go 'ethical' and join the SA ethical trade scheme?

'Calon Wen' is a cooperative of 20 dairy family farms from across Wales located in Carmarthenshire. Aside supplying key organic dairy businesses in Wales with raw milk the cooperative, also, has it's own branded range of dairy products. 'Calon Wen' was founded in 1999 by four farmers who wanted to process their own milk in the region and to keep the added value derived from this processing within the local Welsh communities. Apart from the regional approach, stable relationships with trading partners and a milk price that offers family farmers a long-term future are critical to 'Calon Wen'. The cooperative members believe that the best way to produce milk is on family farms that are strongly rooted in the local communities. Activities related to ethical values of the cooperative are communicated through the product label, the packaging including a 'meet our farmers' link on the website is considered as being the most important argument. 'Calon Wen' was the first dairy to join the Soil Association's ethical trade scheme, which goes well beyond the requirements of the organic standards. The presentation will cover the reasons that prompted the co-operative to go his route and the experience that have been made. .

18.00 – 19.30 Participants at leisure

19.30 – 24.00 Conference dinner with entertainment provided by *La Mort Subite*

TUESDAY 18TH JANUARY 2011

09.00 – 10.30 WORKSHOPS 3

Reduced tillage systems and energy use

The session aims to provide cutting edge information on non-inversion tillage in organic farming, with a special focus on comprehensive system analysis. A diverse range of aspects will be covered, including the development of soil conditions under reduced tillage, weed management, energy consumption, agronomy, and engineering questions. The perspectives of both farmers and researchers will be heard.

Chair: Thomas Döring (ORC)

Oliver Crowley (ORC) and Jemima Showering (RAC): Non-inversion tillage with Eco-dyn cultivator

Non-inversion tillage (NIT), it is argued, is a more sustainable alternative to mouldboard ploughing. However, it is also often associated with increases in arable weed burdens so its use is typically supplemented with herbicides, making this approach impractical for use in organic farming. The Eco-Dyn is an NIT machine designed and developed specifically for use on organic farms. Its manufacturers claim it is capable of achieving sustainable tillage operations that can also adequately control arable weeds without the need for agrochemicals. Reports on its use in Europe suggest the Eco-Dyn could make NIT a viable option for organic farming, but it is yet to be rigorously trialed on UK farms. The Organic Research Centre, in collaboration with Duchy Home Farm, the Institute of Organic Training and Advice (IOTA), and the Royal Agricultural College, is trialing the machine at Duchy Home Farm to examine its agronomic, economic, and environmental performance. The first year of the trial has revealed some interesting results, suggesting NIT could be an economically viable option for organic farmers.

Harald Schmidt (Stiftung Ökologie und Landbau): Evaluation of practical experiences on concepts of reduced tillage in organic farming in Germany (presented by Thomas Döring, ORC)

To gain experience and knowledge about reduced tillage practices in organic farming a research project was carried out in Germany from 2007 to 2010. It was funded by the German Federal Programme for Organic Farming and run by the Foundation Ecology & Agriculture in cooperation with the University Kassel-Witzenhausen. Fifteen organic farms were studied. They can be divided into two categories: (1) Farms with a significantly reduced tillage depth (5-15 cm), usually without root crops. These farms used either devices developed on the basis of skim ploughs such as the "Ecomat" and the "Stoppelhobel", or standard cultivators and devices similar to cultivators (EcoDyn). (2) Farms with non-turning, but deep soil loosening (20-40 cm), often with potatoes, field vegetables or other root crops. These farms primarily used various ridge till systems (Turiel, FB-Frost, Kemink), but also a system with different cultivators. The studied examples show that organic farming is possible without deep ploughing. Successful development and implementation of reduced tillage practices, however, is largely dependent on the motivation of the farmers and on the possibility to adapt the system over a longer period to the conditions of the individual farm. The project also reviewed recent trial results and summarises the impact of reduced tillage on soil, plants, and economics.

Richard Gantlett (organic farmer): Non-inversion tillage: a farmer's experience.

Horticulture: Protected cropping and related topics

(Jointly organised with OGA)

This session will update growers on the implications of the new standards for protected cropping and present some innovative approaches for protected cropping systems.

Chair: Roger Hitchings (ORC)

Alan Schofield (OGA/Growing with Nature): Working with the new protected cropping standards: what it means for growers

Implications to growers of a new organic standard for protected cropping. Horticulture has never been well defined within the EU regulation and the Soil Association is looking at setting a new standard for protected cropping which has always been difficult to reconcile within present standards. A consultation period and meetings took place in the summer of 2010 and this talk will highlight the progress made to date.

Les Lane (XL Horticulture): Plastic technologies for crop covers

XL Horticulture was started 18 years ago by owner and managing director Les Lane. Polythene at that time was a low technology product which was sold as a 2 or 3 season simple cover. Les will show how polythene has become a "greener" product and evolved from a low technology product into a cover which is vastly stronger and lasts 4 or 5 times as long as before. The talk will show you how you can manipulate plant growth, making plants grow taller, shorter or with better colouration, just by filtering the wavelengths of light that enter the structure. We will show how you can reduce fungal disease and reduce aphid attacks, again by manipulating the spectral transmission of the covers. Finally the latest technology in heat retention is available which will have plants ready to harvest earlier and dramatically reduce your heated carbon footprint by using the latest polythene tunnel covers.

Kathleen Hewlett (Soil Association): Standards development for protected cropping

The Soil Association is developing specific organic standards for crops grown in glasshouses or polytunnels to ensure these systems are in line with organic principles, consumer expectation and practical constraints. New standards will also provide a strong base from which to influence the EU's own standards for organic protected cropping, to be discussed by member states and the Commission later in the year. The key issues are around fertility, rotations, soil, pest and disease control, water and energy use. The Soil Association held a first round of consultation last year and is currently drawing up standards proposals for further thirty days of consultation early this year. This talk will provide an update on the protected cropping standards development process and the themes that arose from the consultation.

Peter Dollimore (Hankham Organics): Green manuring for protected cropping.

The benefits of green manures for maintaining the fertility of intensively cultivated soils are undisputed. Their application within protected cropping systems is however less ‘cut and dried’ and the use of a fertility-building period is relatively rare. Arguments for include: soil health, moisture retention, nitrogen fixation, biodiversity, reduced external inputs and reduced pests and diseases. Arguments against include: unviable use of valuable space, requires maintenance (climate control, irrigation), difficult to effectively control weeds, may only supply a small proportion of following crop’s requirements and low nutrient leaching of protected soils reduces a green manure’s value, and can harbour pests and diseases. In the absence of a fertility-building period green manuring is easier to justify where a plentiful supply of high quality compost exists. Several species can be used, desirable traits are fast growing, extensive rooting, easily destroyed and ideally nitrogen fixing. Under sowing with clovers provides a more space efficient option but timing and weed control are critical. Hankham Organics uses an 8 year rotation that contains 3 short term fertility building breaks including winter vetch under-sown with Phacelia in the spring and 2 mid-summer breaks of a sweet clover, crimson clover mix under-sown with buckwheat and amaranth.

‘AssureWel’: Advancing animal welfare assurance through the certification process

‘AssureWel’ is a project between the Soil Association, Bristol University and the RSPCA and funded by the Tubney Charitable Trust. The session will explain what welfare outcome assessment is and how it can be introduced into the certification system, explain what the ‘AssureWel’ project involves and its potential benefits to the certification process and explore methods of providing advice and support for farmers

Chair: Phil Stocker (Soil Association)

Iain Rogerson (Soil Association): Introduction to welfare assessments

What do we mean by ‘animal welfare’ and how can we best assess farm animal welfare through organic or farm assurance certification will be discussed. Organic principles, the Organic Regulation and the Soil Association standards require a high level of animal welfare in organic systems. Farm assurance schemes such as the RSPCA Freedom food aim to raise the welfare of animals on farm. Animal welfare can be considered to encompass three main elements: health, naturalness and the subjective experience of the animal. Up until now, attempts to secure animal welfare have been through the setting and monitoring of resource or ‘input’ based standards, such as stocking densities. However, although these standards are important in determining the welfare potential of a system, they do not guarantee that this potential will automatically translate into a good experience of life for the individual animal. This is because other issues such as stockmanship and the appropriateness of the animal for that system are critical in determining actual welfare ‘outcomes’. In order to ensure animal welfare, it is necessary to monitor the animal itself, to determine whether its health and behaviour are consistent with those that research shows correlates with ‘a good life’. Several methods of measuring the welfare outcome of animals on farm have been developed but they are often time consuming and some require specialist training. The AssureWel project aims to develop core measures that can be incorporated into organic and farm assurance inspections which will provide consistent, repeatable and valid measures of the welfare outcome of the production system on that farm.

Alison Bond (Soil Association): Introduction to the AssureWel Project

The Soil Association has begun its work in a new collaborative project that aims to improve the welfare of farmed animals in assurance schemes. The AssureWel project has brought the Soil Association and RSPCA with their respective schemes, Soil Association Certification Limited and Freedom Food, together alongside the University of Bristol to fully embed the use of outcome measures into the inspection and certification processes of the two schemes. Producers of the schemes will notice an enhanced animal-based focus in their annual inspections, and will be assisted by full access to advisory support. The results of the project will embed into the schemes effective monitoring and continuous improvement of animal welfare – an important driver in consumer choice. Through the use of outcome measures, the development of simplified standards could occur, allowing producers greater flexibility in their systems whilst ensuring that animal welfare is maintained. The project goals aim to deliver the optimum welfare assurance within the two schemes and to promote these improvements in animal welfare to a wider assurance scheme audience in order to encourage improvements in the lives of the majority of UK livestock.

Dr Siobhan Mullan (University of Bristol): Linking animal welfare research with ‘AssureWel’

Kate Still (Soil Association): Animal welfare advice and producer support

Advisory support to farmers is a key element of the AssureWel project in order to stimulate pro-active husbandry changes to improve animal welfare. Inspectors will provide immediate feedback on welfare outcome assessment core measures at the time of inspection. Farmers will then be signposted to further advice if improvement is possible or required. It is essential we develop an advisory programme that will deliver the most useful and appropriate support to farmers. Animal welfare is a highly sensitive issue and clearly different farmers will find different formats of advice more suitable for them than others and so a range of methods needs to be included. The programme will include: targeted, individual support via one on one advisory visits; learning networks to include local ‘goal focused’ group workshops; broader health & welfare advisory events; on-going support via email and web-based forums; fact sheets and on-line resources aimed at improving performance on all core measures; and a best practice award scheme that will celebrate both attainment and improvement in relation to core measures. We are keen to gain feedback on what are preferred methods of receiving advisory support in order to deliver the most effective programme.

Closing cycles: re-visiting the case for sewage sludge and green manure composts

This workshop will debate the issues around the use of biosolids and composts in organic farming in view of the need to close cycles, not only on the farm but also at regional level, returning nutrients from urban to rural areas.

Chair: Andrew Jedwell (consultant)

William McManus (WRAP): Off-farm composts: quality, availability and use in agriculture

In response to environmental drivers the size of the commercial composting sector has increased ten-fold over the past decade, with almost three million tonnes of source-segregated composts produced during 2008/09. At present, only composts derived from green (botanical) wastes are permitted for use in organic systems. Whilst these represent a useful source of crop-available P, K and other nutrients, their high organic matter content means that they are most widely used as soil improvers: helping to retain moisture on light soils and opening up the structure of heavy soils. Green/food composts – derived from input materials containing a proportion of domestic or commercial food wastes – offer similar benefits, but also contribute crop-available nitrogen in the year of application. WRAP continues to advocate the use of composts produced to the baseline PAS100 specification, which governs input materials, processing parameters and product quality. More than 90% of commercial composting processes were certified to PAS100 during 2008/09. The specification includes a zero tolerance for weeds and a compulsory bioassay to screen for herbicide residues. WRAP continues to work with food-chain partners to build confidence and develop further guidance for compost use in different crop sectors.

Brian Chambers (ADAS): Biosolids and organic farming

Biosolids (i.e. treated sewage sludge) has been recycled to agricultural land for many decades throughout Europe. This is recognised as the best practicable environmental option under most circumstances and is supported by the UK government and European Commission. Around 1.1 million tonnes (dry solids) of biosolids was recycled to agricultural land in the UK in 2008 (equivalent to 77% of sewage sludge production). Based on an average application rate of *c.* 7 tonnes dry solids/hectare, the area of agricultural land annually receiving biosolids is >150,000 hectares. Recycling biosolids is a regulated process. Current controls are based on a 1986 EU Directive (*Sludge Directive 86/278/EEC*) which was implemented in the UK in 1989 through the Sludge (Use in Agriculture) Regulations. The regulations are supported by a Code of Practice (1996) which details all aspects of biosolids recycling to land, including soil heavy metal limits and application rates, information requirements and guidelines for best practice. Notably, biosolids heavy metal concentrations have declined substantially over recent decades. Additionally, the voluntary “Safe Sludge Matrix” agreement has been in place since 1999. The agreement, made between Water UK representing the UK water and sewage operators and the British Retail Consortium (BRC), anticipates revision of the Sludge (Use in Agriculture) Regulations 1989 and has influenced on-going discussions on revision of the EU Sludge Directive. Biosolids are a valuable source of plant available nitrogen (N), phosphorus (P), sulphur (S) and magnesium (Mg), and as a result of some conditioning processes has value as a liming material. Moreover, biosolids is a particularly good source of phosphorus, which is an essential nutrient for plants and animals, and for which (unlike oil) there is no substitute. Also, the organic matter content has value as a soil conditioner, improving the structural stability and water holding capacity of soils. Digested cake and lime stabilised cake are the most common products applied to farmland. Guidance on making best of biosolids nutrients is provided in the Defra “Fertiliser Manual (RB209)”. Under EC Regulation No. 889/2008 on organic production and labelling of organic products, human sewage sludge is not a permitted fertiliser or soil conditioner, so at present their use is not permitted on organic land in Europe. Before the EU regulation, Soil Association standards allowed biosolids use with the provisions that it was properly treated to kill pathogenic micro-organisms, that heavy metal concentrations were within stated limit values, that it was only used on crops not for direct human consumption and was only used for one year in every three. The importance of recycling phosphorus in the food chain is arguably one of the most compelling reasons for recycling biosolids in agricultural systems. Phosphorus is a non-renewable natural resource with world reserves estimate in terms of decades rather than centuries.

Katie Owens (OF&G): Certification issues and use of off-farm soil improvers in organic farming

There are an increasing number of nutrient sources available to farmers as recycling of wastes becomes a greater priority in the UK and around the world. However the demands of organic standards make some of these nutrient sources inaccessible to organic farmers. Issues such as GM contamination and heavy metals need to be discussed and decisions made on whether compost, digestate and sewage sludge should be allowed in organic farming.

10.30 – 11.00 TEA/COFFEE BREAK

11.00 – 12.30 WORKSHOPS 4

Developing the arable market with quality production

To discuss how best to develop the organic arable sector – what the market needs and future opportunities.

Chair: Bruce Pearce (ORC)

Nigel Gossett (Norton Organic Grain): Understanding and improving our efforts in the arable market

The market place for organic grain and feed raw materials is barely 1.5% of the size of that in the conventional sector. The UK is a significant importer of organic feed grains, oilseed/protein cakes, and milling wheat, so there should be adequate marketing opportunities for home-produced arable grain crops. However, the highly specialist nature of the market, geographic skew, and market influences exerted by import of products from China, South America, India, eastern Europe and EU countries mean that integrated planning of rotations, cropping and marketing are key to the success of the organic arable farmer. With price levels approaching record levels, good profitability levels should be achieved this season. Meanwhile livestock producers are groaning under the strain of increasing feed costs, while milk, meat and egg packers wrestle with retail consumer outlets to obtain adequate prices from the Organic faithful. We will try to highlight some of the key features of the trade to aid both arable and livestock producers alike, and highlight the importance of good quality crops to meet the expectations of our premium market place.

Michael Marriage (Doves Farm): What do grain users expect of their suppliers?

Michael will speak about how farmers should handle their crops post harvest and prepare them for sale so as to obtain the best value from the customer. This will include grain drying, sample preparation, mycotoxin legislation and the valid expectations of the customer.

Cark Maunsell (Oat Services): The trouble with oats....?

Currently the quantity of oats grown on organic systems is relatively small. This presentation will examine whether this is a lost opportunity by assessing the current issues in growing oats, as well as the perceived or real barriers of entry into the human and animal feed markets, including the role research plays in bridging the technology barriers.

Local groups – are they the future?

(Jointly organised with OGA and Soil Association)

An exploration of new routes to market building on local initiatives and a discussion on how OGA, SA and Garden Organic can continue the process once the current CSA project ends.

Chair: Roger Hitchings (ORC)

Ben Raskin (Soil Association): The SA’s CSA Project and its support for local groups including mentoring

The Soil Association’s Community Supported Agriculture (CSA) Project is part of the Making Local Food Work partnership. This partnership is “rooted in the belief that the needs of consumers, producers and the land are interdependent, and that community enterprise can renew and strengthen these links to the lasting benefit of all”. This presentation will describe how new CSAs have become established with the help of the project and how they link into a wider CSA network. Information, advice and support is provided alongside a range of training courses that cover technical growing issues, business management and marketing. An offshoot of this provision has been the development of horticultural mentoring groups. These groups have been set up around the country and are led by an experienced grower. They are intended to give CSAs and their members the opportunity to come together to learn new horticultural skills, and to swap ideas and solutions. All this has been made possible through Lottery funding which will come to an end. The challenge for the sector is to ensure that these interesting and successful developments continue after the funding comes to an end. Discuss.

Caspar Lampkin (Aberdeen University): Student food groups – the Aberdeen University experience

This talk will describe the Aberdeen University Students Union VegBag co-operative. It is entirely run by volunteer student labour and brings ORGANIC, seasonal and as local as possible fruit and vegetables to the campus every week. The produce comes from a local, organic, wholesale distributor and farm called Lembas, growers and wholesalers of organic fruit and vegetables based near Aberdeen. The philosophy of the co-operative is simple – it is to source cheaper organic vegetables that you can really taste! The abundant availability of over-packaged, ready-prepared, clean, inorganically grown vegetables in shops is just overwhelming, and the cold exchange of money for food over the counter in massive supermarkets with glaring yellow lights is just not an experience that especially attracts us. It’s also a bit worrying to think that some kids these days do not know what a carrot looks like!

Kate Collyns: Local group case study – Bristol and Bath Organic Growers

Local groups can take several forms – sometimes the initiative comes from consumers and sometimes from the producers. Bristol and Bath Organic Growers Group (BABOG) is an example of the latter and this talk will describe how it came to be set up and what its future objectives are. Reference will be made to the experience of setting up a business in isolation and what a difference a supportive growers group can make when taking the plunge for the first time. Kate will also be able to talk about her experience as a Soil Association apprentice and what she learned about local groups as part of that experience.

The role of livestock in food production

Livestock are often seen as the cornerstone of organic farming systems, utilizing the fertility-building phase of organic rotations. However, their role is increasingly being questioned, on grounds of diet, health, food security and climate change. Is it possible to define a context for livestock production which is complementary to, rather than competitive with, the needs of the global environments and of humans for food and energy? This session will explore the depth and complexity of the issues and the implications for the future development of sustainable organic systems.

Chair: Christopher Stopes (consultant and President, IFOAM EU group)

Simon Fairlie (farmer and author): Meat: A Benign Extravagance.

What is the environmental impact of meat? There is no simple answer to this question because the land take, and hence the environmental impact of meat increases the more we consume of it — on a graph this is expressed in the form of a hockey stick curve. A certain amount of meat consumption (perhaps a third of what we currently consume in developed countries) carries a very low environmental impact because it is a by-product of agricultural systems which have evolved to supply us with grains and vegetables: notably pigs and cattle fed from crop residues and food waste, ruminants fed on grass and legumes that are an integral part of the fertility cycle, and ruminants fed on land unsuitable for cultivation (whose purpose in an organic agricultural economy is to harvest otherwise irretrievable nutrients and transport them to the arable land). I call this default meat consumption, a phrase used by the FAO. Higher levels of meat consumption require the dedicated use of land and fossil fuels to produce grains and other crops expressly for livestock consumption, and this is hard to justify in a world where a billion people have too little to eat. But a certain amount of human-edible animal feed (about 50 kilos per person in a good year, which equates to perhaps 10 kilos of meat) is necessary as a buffer to ensure that there are sufficient quantities of grain grown to feed everybody in a poor year.

Richard Young (farmer and Soil Association policy adviser): **Organic livestock production – implications for health and the environment**

With only limited exceptions, organic food production is heavily dependant on livestock, especially ruminants, since they provide the most economical and productive way to utilise the high nitrogen-fixing ability of forage legumes, grown during the fertility-building phase of a rotation. However, ruminants are increasingly seen as undesirable because they are responsible for significant emissions of greenhouse gases. Adult beef animals produce over 50 kg of methane annually and are typically slaughtered after two years. In contrast, intensive chickens emit almost no methane and are slaughtered when 41 days old. These are two of the reasons why scientists at Cranfield University conclude that the carbon footprint of organic beef and lamb is approximately 3-4 times higher than that of intensively-produced chicken. The Cranfield research, though generally reliable, fails to consider the issues of soil carbon and nitrogen, and the full carbon footprint of imported livestock feed. In addition, its comparisons between organic and non-organic crop production are based on stockless rotations, not mixed organic systems. Correcting for these and other omitted factors shows organic systems, and the value of ruminants, in a different light in relation to greenhouse gases. At the same time, red meat is increasingly seen as less healthy than white meat, due to its higher levels of saturated fat and heme iron, which many scientists believe increase the risks of cardiovascular disease and cancer respectively. Studies assessing the health implications of meat consumption have, though, paid scant attention to the fact that meat from grass-fed animals has a very different nutritional profile to grain-fed meat, including higher levels of certain saturated fats which do not increase cholesterol levels, lower levels of saturated fats that do, and a vastly better ratio between omega-3 and omega-6 polyunsaturated fats, making it possible that organic beef and lamb are actually more healthy meats than intensive chicken, while also financially underpinning part of a crop production system much less dependant on non-renewable inputs. In addition, the assumed harmful effect of saturated fats generally remains scientifically controversial and the continuing attempts to limit them in the diet may even be doing more harm than good.

Nigel Elgar (farmer): **the role of livestock production in the uplands and integration with lowland production**

Meat and dairy farming is one of the most significant contributors to global environmental problems, including biodiversity loss and climate change, but impacts vary greatly with different livestock production systems. Intensive systems rely heavily on imported animal feed whereas extensive grass-based systems provide many environmental and social benefits

Our hills and uplands are crucial for food supplies now and in the future. These areas are unsuitable for crop production and so extensive livestock farming has a vital role to play on otherwise agriculturally unproductive land.

Linking the hills and uplands with the lowlands through a stratified system is the cornerstone of UK livestock farming.

Current reforms on support for upland areas, particularly in Wales, threatens the viability of many farms and will impact on food production and rural economies.

Graig Producers, an independent marketing group, plays a vital role in linking upland and lowland organic farms and representing the interests of its members and the sector generally.

Anita Idel (vet and author): **Cows are not climate killers**

What is the right system for cattle – taking into account their role as landscape gardeners for the planet as well as extremely energy-intensive high-performance animals on the other? Cattle, sheep and other ruminants turn pasture into milk and meat. They have evolved in co-evolution with pasture land, which is not appropriate for cultivation. Cows “burp” methane, which is 25 times more damaging than carbon dioxide. However, the highest agricultural emissions are caused by the synthetic fertilisers used in the production of concentrated feed as part of intensive agriculture. Chemical fertilisers need a lot of energy in the making and later emit nitrous oxide – which is 295 times more damaging to the climate than carbon dioxide. In contrast to this cows and other ruminants can actually reduce climate change. The reason for this is - pasture covers about 40% of the global land mass. Through sustainable pasture management carbon is stored as humus in the soil and contributes to the fertility of the soil. Each tonne of humus in the soil captures about 1.8 tonnes of carbon dioxide from the atmosphere.

Biodiversity, ecosystem services and agroforestry

There has been much debate recently on the role of organic farming in supporting biodiversity and ecosystem services: is this ‘land-sharing’ approach better than a ‘land-sparing’ approach that separates natural areas and agriculture into parks and (intensive) prairies? This session will focus on how to integrate biodiversity into the farming system for both economic and environmental benefits. The discussion will centre on the ecosystem services concept: what does this mean to producers? Is it a useful approach? How can we value ecosystem services to the benefit of those responsible for delivering them?

Chair: Ian Alexander (Natural England)

Martin Wolfe (ORC): **Sustainable agriculture is in our nature**

We need to increase food production and to reduce losses in biodiversity and ecosystem services, all in the agricultural area. Some say that, within that area, the two activities should be separated to allow even greater intensification of production. Others argue for a ‘land-sharing’ option, using, say, stewardship schemes to improve habitats within each farm. A third option is to balance the use of these options by application of appropriate criteria. However, there is a fourth option available, ecological farming, whose productivity depends on the exploitation of wide-ranging elements of biodiversity. We should focus on improvements in ecological farming to expand the area available for simultaneous increases in both production and biodiversity. Organic farming is a valuable candidate for ecological farming as indicated by consistent evidence for improvements in the abundance, richness and evenness of simple biodiversity markers relative to non-organic systems. Such markers are, however, crude and take little cognisance of the multiple elements of functional biodiversity involved in the operation of ecological farming systems. Furthermore, there is an urgent need to consider more complex systems such as eco-agroforestry which can bring a simultaneous step change in overall productivity and biodiversity while improving climate change mitigation through carbon sequestration.

Ulrich Schmutz (Garden Organic): Technical efficiency of multi-output farming: biodiversity, yield and profit

The presentation presents selected data from a large scale project on biodiversity benefits from different concentrations of organic (and conventional) farming in the English landscape. Using wheat and grass as indicator crops (by far the most common land use types) we analyse the technical efficiency of organic and conventional farming to produce a combined output: yield, net margins and biodiversity together. This combined analysis can contribute to the current discussion on valuation of ecosystem services, as it provides an efficiency measure for the production of private and public goods combined. The data also complement the FBS data for the years 2006, 2007 and 2008 and give an interesting, more detailed, inside into current wheat production on organic versus conventional farms in different concentrations in the landscape. For practical organic farming there might be some specific lessons to be learned how to optimise wheat production for multiple-outputs in the future.

Charlotte Hollins (Fordhall Farm): Biodiverse foggage farming for sustainable livestock production

Fordhall Organic Farm based in north Shropshire, has been chemical free for over 65 years, after the late Arthur Hollins vowed never to put chemical fertiliser back onto the land. The farm is now also England's first community-owned farm after £800,000 was raised to save it from development in 2006. Now tenanted and run by Arthur's children, brother and sister, Charlotte and Ben Hollins, the farm continues to be an organic livestock farm. Charlotte and Ben, both in their twenties continue to farm using the Foggage system that their father Arthur Hollins developed. It is a system based entirely on diversity, careful management and rotation, relying on nature to provide food to maintain the livestock on the farm, which also means their cattle and sheep can remain outdoors all year round. A great example of how by increasing diversity within the farming system, it is possible to reduce feed inputs, reduce poaching and associated environmental damage, enhance the wild biodiversity and improve animal welfare.

12.30 – 13.30 LUNCH**13.30 – 15.00 CLOSING PLENARY****Developing the organic market and engaging with consumers****(Jointly organised with Sustain/Organic Trade Board)**

The UK organic market has seen significant decline during the recession, but how different is the experience from other food sectors and are we beginning to turn the corner? The EU-funded generic promotion campaign, led by Sustain and the Organic Trade Board, launches its efforts to revitalize the organic market in January – but how can individual producers and groups engage with and be supported by the campaign?

Chair: Huw Bowles (Organic Trade Board/OMSCo)**Finn Cottle (Soil Association): An overview of developments and trends in the organic market****Sophie Daranyi (Haygarth): An overview of the promotion campaign approach and content**

Haygarth has spent a year working with The Organic Trade board to create a campaign designed to democratise organic and increase appeal and relevance. Sophie Daranyi from Haygarth will present the key consumer insights and strategy behind the new national media campaign. She'll also share the wider plans for the 2011 with the different media elements including digital and PR activity.

Catherine Fookes (Sustain): Opportunities for producers to engage with/be supported by the campaign

Discussion with producer panel: Dairy: Richard Smith (Daylesford Organic Farm), Meat: Peter Davies (Slade Farm Organics), Arable: John Pawsey (David Alston (Suffolk) Ltd; Horticulture: Alan Schofield (Growing with Nature)

15.00 – 15.30 REFRESHMENTS and CLOSE OF MAIN CONFERENCE**15.30 – 17.00 OPEN MEETINGS**

- 1. IOTA: Update for advisers and producers on changes to organic standards/policy**
- 2. OGA: Members' meeting**
- 3. ORC: Invitation to join in with the SOLID organic dairy research project**