

1-2 February 2017
Aston University,
Birmingham

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Practical organic farming solutions for an uncertain future

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WEDNESDAY 1st February 2017

11:00-12:30 Opening plenary

Organic farming's role in future food and farming policy

The Brexit decision opens up huge questions about food, farming and environmental policies in the UK. Can new UK policies respond better to addressing the big issues, including public health, climate change, soil and biodiversity conservation? What can organic food and farming, and the organic movement, contribute to this process? What issues should we be thinking about in developing future policy priorities, during this conference and beyond?

Chair: Nic Lampkin (ORC)

Tim Lang (Centre for Food Policy): Food and Brexit: nightmare or nirvana for the UK food system?

The 2016 Referendum vote to leave the EU heralds one of the most important periods of transition for British food and farming since industrialisation. This is a moment of policy reconfiguration on a par with events such as the 1846 Repeal of the Corn Laws which set the UK on the imperially sourced 'cheap food' route, or the enforced changes in World Wars 1 and 2 which exposed Britain's dangerously low food self-sufficiency and persuaded the state and industry to rebuild home production. In the last two decades, UK home production has gently slid to at best 61% or at worst 52% of consumption. For horticulture, our dependency is immense. And over the last half century, the UK food system has been entwined with an expanding EU. Now what? This paper will outline: (a) the diverse positions and options ahead, not just for farming but the entire food chain; (b) 'hot' issues such as food standards, reliance on external labour force, types of food; (c) the institutional possibilities for the UK State and a fragmenting Britain; and (d) the battle for hearts and minds of consumers in the Brexit narrative. The politics of all this is fluid, ranging from economic nationalism to a new food imperialism, from a new relationship with the European continent to a new 'free trade' ethos, from a reinvigorated sustainability to a neo-liberal tearing up of international commitments. What emerges may all be decided by 'events, dear boy, events' as a wise old Tory Prime Minister once put it. The lecture will analyse this febrile policy mix by reminding us first of the imperative to make the UK food system address objective realities such as climate change and runaway diet-related ill-health. A Brexit Nirvana would be the delivery of sustainable diets from sustainable food systems. The Nightmare would be a messy Brexit derailing existing slow but important moves to decarbonise and put health at the heart of the food system.

Heather Anderson (Whitmuir Organics): Working for a Citizen's Agricultural Policy for Scotland

Scotland voted overwhelming to remain in the EU and as we say here, Remain means Remain. 85% of Scotland's land is classified as less favoured area and 20% of all farming income comes from EU subsidy. Being forcibly dragged out of Europe against our will and finding ourselves suddenly dependent on Defra is a potentially life-threatening situation for farming in Scotland – so we are understandably terrified.

But whilst we live in worrying times, politically there have been some significant improvements in the role of agriculture in Scottish civic life. The Good Food Nation Bill aims to bring together food, farming, health and climate change. The Scottish Government has world-leading climate change and food waste reduction targets, both of which give organic and agro-cological farming systems a key role to play.

Organisations like Nourish Scotland are campaigning for the right to food to be enshrined in Scots law and this, together with the land reform, community empowerment and ending child poverty agendas all potentially support the development of citizenship agriculture. So we also live in exciting time. In her presentation, Heather will highlight some key strategies for positive change as we endeavour to draft a Citizen's Agricultural Policy for Scotland.





13:45 - 14:45 WORKSHOPS 1

Market overview

How is the market doing and how can we improve the data available to producers?

Chair: Susanne Padel (ORC)



Paul Moore (OTB): Understanding the organic consumer

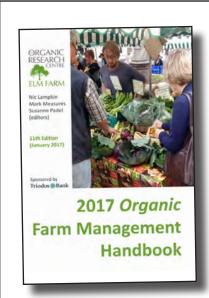
The Organic Trade Board with Organic Denmark has just secured funding for three years to promote organic foods in both markets, €10.4 Million budget funded by industry and the EU. In working closely with Organic Denmark it has become increasingly clear that whilst there are differences in the retail landscape, the key factor that underpins growth in both markets is the consumer.

In both markets, the typical organic consumer is not simply defined by what they earn, or where they live, but what they think. Whether consumers are engaged in the organic market or not, common perceptions about the term organic come in to play. Both consumers and non consumers see organic as better for the environment, animal welfare, reduction in use of pesticides and so on. All positive attributes associated with organic. It is where the values differ that understanding turns in to purchase behaviour. Organic consumers increasingly see organic as 'tasty', 'Healthy for me' and crucially 'Worth it' and these perceptions and values are driving ever increasing growth.

Finn Cottle (Soil Association): UK organic market performance - 'healthy growth'

An update on the performance of the organic market in the UK across all food and drink categories, as well as a consideration of the general trends affecting consumer choice now and in the future.

The talk will also include the highlights of the Soil Association's recent research understanding the organic market today and providing a framework to help organic businesses and retailers plan for future success.



New!

Special Conference price: available from ORC stand



Farmer principles of health (ORC)

Our Health Networks project has worked with farmer groups in Germany, Austria and the UK to establish what personal principles and strategies organic farmers have developed to increase the health of their farms.



Chair: Anja Vieweger (ORC)

Farmer panel: John Newman, Jain Tolhurst, Richard Gantlett, Adrian Steele, John Pawsey, **Mark Measures**

Anja Vieweger (ORC) will present the outcomes of this 2-year project and introduce the 10 key statements formulated by the farmer groups on how they manage health on their farm. There will then be a panel discussion, involving the members of the UK farmer group, who will discuss the importance of intuition and self-observation when managing healthy farming systems. This was identified as a crucial factor by all involved farmers, but one that is particularly challenging to 'train' or learn.

Crops meet livestock (IBERS/SRUC)

This workshop will explore the benefits and barriers to mixed farming emerging from recent EU-funded projects and discuss how mixed farming might be supported through research in the future. SRUC



Chair: Pip Nicholas-Davies (Aberystwyth University)

Pip Nicholas-Davies (Aberystwyth University):

Mixed farming systems are complex and require a high level of skill to run profitably. A more complex farming system has a large number of components (including human, technical, economic, financial, risk, institutional and social as well as the biological production systems themselves) and the interactions between these components whilst providing greater system resilience and long term sustainability of a farming system, can be difficult to understand and manage. If managed well, a mixed farming system can provide a number of benefits including increased self-sufficiency of feed, more efficient nutrient cycling, greater provision of ecosystems services such as biodiversity and conservation of non-renewable resources (e.g. fossil fuels for fertiliser manufacture). By identifying and addressing farmers concerns related to management complexity and mixed farming, the benefits of mixed farming systems could be maximised. Evidence and discussions will be presented from the CANTOGETHER mixed farming project and the European Innovation Partnership Focus Group on Mixed Farming to identify what some of the social and economic barriers to mixed farming might be and suggestions for overcoming these.



Christine Watson (SRUC): What is needed to support increased mixed farming?

Integrated crop livestock systems potentially provide better resource utilization (e.g. energy, nutrients, land use) than specialised systems and thus have the potential for reduced reliance on external inputs. There are different levels of integration from a traditional mixed farm concept to farms which are spatially separated within a landscape exchanging commodities such as feed for manure. Here we will discuss the opportunities for improving the use of nitrogen and phosphorus by better integration of crops and livestock at different scales. The organisers of this workshop were both part of the EIP Mixed Farming Focus Group in 2016/2017 which brought together 20 EU experts from practice and academia to discuss the challenges and opportunities which a return to more mixed farming systems could bring to Europe. We will share the conclusions of the Focus Group with you.

Getting to grips with the cost of production (OGA)

This workshop will be a first step towards defining the kinds of data that will be most



useful for growers. What costs are important to you for different crops and how can we create easy ways to compare costs between growers?

Ben Raskin (Soil Association): Chair

Rob Alderson (Moss Brook Growers): Why bother collecting and analysing production data?

As new entrant veg growers going into field-scale veg growing, we found it very difficult to plan our business. We found it immensely useful to to do quite comprehensive record keeping, but few others do it. We also began to see that: it's one thing keeping records for ourselves, it would much more beneficial to share data with other growers. Surely if all of us organic growers worked together – sharing data and best practice – we would give our type of food production a much better chance of proving itself, of being one of the predominant/ proven/profitable ways of producing food. We are looking at compiling a more comprehensive set of data for growers to benefit from.

- For budgeting: business analysis, planning and forecasting.
- For benchmarking: comparing key data with other growers, and encouraging best practice.

Facilitation: Roger Hitchings, Alan Schofield, Rob Alderson, Phil Sumption

We will divide into 3 groups: tomatoes, salad bag production and leeks. We will discuss the key costs that are important for each crop. We will then come back together to see if we can prioritise and develop a common template for use by all growers.

Latest EU organic regulation developments and future options (ORC)

The discussions over a new EU regulation have been continuing for several years with a poor (even possibly no) result in sight. Why was it needed? What has been achieved? Could we do a better in



a UK framework post-Brexit, or should we stick with the EU regulation in the long-term to facilitate international trade?

Roger Kerr (OF&G): Chair

Chris Atkinson (Soil Association): The EU organic regulation revision from an IFOAM EU/UK organic perspective

The opportunity to develop and improve the EU regulatory framework for organic food and farming is something that should be warmly embraced by the organic movement. After all, the legal definition of the term organic has helped to secure CAP payments for farmers, underpin rapidly growing consumer confidence, facilitate trade within the Single Market and allow import and export of organic goods.

So, how is it that after several years of intensive work the current review process has reached an impasse with the key EU institutions unable to reach an agreement on even the principles and structure of the proposed basic text leading many, including IFOAM EU (the umbrella organisation for the organic sector), to call for a 'new start'.

How did we get to this point and if the review process continues can it still deliver a practical and constructive framework that supports the development of the sector and meets the aspirations of organic businesses and the organic movement? What lessons can we learn from this and should we be concerned about what this says about who and what now defines the term 'organic'?

Nick Turner (Defra):

A legislative framework that works for the UK lessons learned and new opportunities

In March 2014 the European Commission published a proposed new legislative framework for organic production. This took a very principled, hard line approach that was widely seen as unrealistic and failing to deliver on the aims of the review. Many feared that it would lead to a shrinking of the sector. After over a year of negotiations in Council Working Parties the Member States agreed on their position. Sometime later the European Parliament too reached a position and ever since discussion has been in 'trilogues' where the three institutions try to seek agreement. But as we enter the Maltese Presidency, agreement has not yet been reached. I will give an overview of how discussion has evolved, highlighting the key stumbling blocks, but also reflecting on the extent to which, as a whole, the package delivers on its original aims. I would also like to invite participants to consider to what extent the EU regulation delivers for the UK and the level of ambition for change in a life after we exit the EU.



15.00-16.00 WORKSHOPS 2

Funding new entrants – new opportunities for financial support (ORC)

Small-scale producers, including many new entrants to farming and growing, face challenges raising finance because of their lack of track record or sufficient scale to reassure lenders of financial viability. In many cases, small-scale producers are also



cases, small-scale producers are also not able to access government grants. However, other funding options are becoming available.

Chair: Simon Crichton (Triodos Bank)

Robert Fraser (Funding Enlighted Agriculture): What the FEA can offer.

Funding Enlightened Agriculture (FEA) is a programme of the Real Farming Trust set up to help agroecological enterprises find the funding and support they need to become investment ready.

Nic Lampkin (ORC): The Dean Organic Fund – a new incarnation of the Dean Organic Trust

The Dean Organic Trust was established by Jennie Bone, with a bequest from her friend Doreen Meek, in 1993, to offer financial assistance to organic farmers and growers in the form of small interest free loans for those establishing an organic business or looking for help in purchasing new equipment. Jennie Bone, who died in 2016, has bequeathed the majority of her estate to the Organic Research Centre to continue providing this financial assistance to a larger number of beneficiaries. The new Dean Organic Fund will be launched by ORC later in 2017.

Amy Willoughby (Plotgate CSA): Making Plotgate CSA happen – how we got the funding

As a participant in the FEA's Just Growth Programme in 2016, Amy will reflect on Plotgate CSA's experience of the funding process, the funding journey and the difference it has made at Plotgate, Somerset. The Just Growth programme had 5 parts; a community share offer, a loan from Co-operative Community Finance, a grant from Esmee Fairbairn, business mentoring support, and involvement in developing a social accounting toolkit with Coventry University.

Vincent Mears (Treddafydd farm): Treddafydd Farm and the Dean Organic Trust

In 2011, as a result of mentoring by Andrew Jedwell, a consultant appointed by Cywain, a Welsh Government agency assisting farmers, we identified that it would be profitable to increase our flock of laying hens, increase production of preserves and erect a polytunnel to grow tender crops and to extend the growing season. Our own bank and Triodos bank couldn't help with finance and there was no accessible Welsh Government or Local Government funding. Fortunately we found the Dean Organic Trust. A summary of the reasons for the loan, proof of organic status, and two references resulted in a £10,000 interest free loan which enabled us to buy two 50 bird hen houses, 100 hens and a 20 feet by 66 feet polytunnel. The Trust has been a delight to deal with.

Breeding for organic arable, which way forward? (ORC)

How to boost the availability of organic varieties in a sector reliant on varieties bred for conventional systems and inputs? New perspectives on the role of genetic diversity, the traits of interest and the involvement of farmers in organic breeding programmes.



Chair: Bruce Pearce (ORC)

Gemma Clarke (Cope Seeds): Our experiences with organically bred material and plans going forward

After long being told organically bred wheats yield around 1/3 less than conventionally bred material I thought it was time to put this theory to the test. What we found was quite exciting and something we hope the end users will sit up and take note of.

Could we have found the answer to our quality problems? I believe we have, but of course, it comes at a price....

Edith Lammerts van Bueren (Louis Bolk Institute): Organic crop breeding: advances and challenges

Although organic seed production and use is steadily increasing, we still need improved varieties. Not only because many varieties grown in organic farming are bred for conventional agriculture, but also because the irregular and more unpredictable weather patterns require more flexible, robust and reliable varieties to support the development of a resilient farming system. Although some crucial pest and disease resistances are still lacking and urgently needed, the most challenging traits are the below-ground traits such a root systems and nitrogen use efficiency and breeding for improved interaction with beneficial soil micro-organisms such as mycorrhizae. Besides the technical challenges, also the social, economic and legal aspects in breeding are important.

The current business model in breeding relies heavily on patents; therefore many initiatives in Europe and USA are looking for alternative, open-source approaches. They are also looking for options to move away from hybrids and promoting open-pollinated varieties. New models in breeding cannot be developed without the commitment of the retailers and processors. This presentation will show some recent examples of chain based approaches in the Netherlands, and will discuss the state of the art in breeding for organic farming in a broader sense.

Market opportunities for livestock sector (ORC)

Marketing of organic and pasturefed beef and lamb is challenging, with very low or non-existent premiums and significant proportions of certified product still sold as conventional. However, some



producers have succeeded in breaking through to new markets. Can their experiences stimulate new thinking on how to address the challenges?



Chair: Jonathan Brunyee (PFLA/RAU Cirencester)

Panel: John Purcell (Good Herdsmen), Polly Davies (Slade Farm), Chris Wardle (Organic Livestock Marketing Co-op)

After an introduction from Jonty, each panel member will explain their current marketing activities (products, USPs, routes to market etc.) and outline their thoughts on future marketing opportunities and threats. Then we will invite questions from the floor and each speaker will finish with a top tip or take-home message.

GREATsoils (ORC/Soil Association)

Results from the first year of GREATsoils grower trials, comparing different soil assessment methods in 6 horticultural systems. A clear priority of the growers was soil



organic matter improvement and increasing soil life through the use of green manure.

Chair: Dominic Amos (ORC)

Phillip Hubbert (JEPCO): How to measure soil health in intensive salad rotations?

J.E. Piccaver & Co are intensive outdoor salad producers in South Lincolnshire. Our soil types are very productive for many crop types. However due to low organic matter and the use of large modern equipment, the soil structure is being put under unsustainable pressure. The additional problem of shared rotations with neighbouring landlords has led to a need to develop a strategy which provides solutions to soil structure improvement and at the same time fits with our farming partners. JEPCO started field scale trials with green cover crops in 2012. These where in general autumn sown grass leys or oats which are then mulched & ploughed in in front of a salad crop the following spring. The improvement in soil friability and ease of cultivations being the first benefit to be seen. The following years have seen larger areas grown utilising this technique. Soil nutrient analysis has also led to reduction in nitrogen applications during salad crop establishment.

Our involvement in the GREATSoils project in 2016 has enabled us to formalise our knowledge gathering to establish the soil improvement benefits we are hopefully making. The ability to measure microbial activity and soil health being paramount. The creation of a farmer group locally who are all aiming to learn and develop a sustainable approach to soil management is a major breakthrough for the future.

Iain Tolhurst (Tolhurst Organic): Looking at soils and earthworms in green manures

At Hardwick we are always conscious of what is happening with the earthworms within our soils. Horticulture makes intensive demands on soil, its structure, nutrients and biology. Getting to understand more of the earthworm is a very useful soil health indicator. We make much use of green manures, some are long term fertility builders others are over-winter to protect soils and lift nutrients.

The trial we are conducting with ORC is looking at how sowing dates of green manures may influence soil quality and earthworm populations. The trial gives an excellent opportunity to evaluate several soil assessment methods to gain a clearer picture of soil health. We have started to look at some of the results which are very interesting. We are conducting seminars on the farm with farmers and these have been very useful in sharing experiences and information.

Developing Organic (ORC)

Certification provides a critical underpinning for the market for organic products, but is this enough? Should we be considering new models that encourage certified businesses



to explore all options to deliver sustainability and other goals, building on minimum standards as a foundation, not a ceiling?

Chair: Lawrence Woodward (ORC)

Markus Arbenz (IFOAM Organics International): Organic 3.0 – a new vision for the organic movement

In 2010, a small farmers' gathering titled its discussion 'R-Evolution of Organic Agriculture – Organic 3.0'. The idea of Organic 3.0 was born!

The overall goal of Organic 3.0 is to enable a widespread uptake of truly sustainable farming systems and markets based on organic principles. At its heart, Organic 3.0 is not prescriptive but descriptive: instead of enforcing a set of minimum rules, this model is outcome-based and adaptable to local context. It is still grounded upon clearly defined minimum requirements (standards). But it also expands outward from these base requirements: it calls for continuous improvement through stakeholder-driven initiatives towards best practices based on local priorities, and as described in the Best Practices Guidelines of IFOAM – Organics International.

The strategy for Organic 3.0 includes six main features, consistently promoting the diversity and recognizing there is no 'one-size-fits-all' approach: 1) a culture of innovation; 2) continuous improvement towards best practice; 3) diverse ways to ensure transparency and integrity; 4) inclusiveness of wider sustainability interests; 5) empowerment from the farm to the final consumer; and 6) true value and cost accounting.

The concept of Organic 3.0 has been drafted based on a discussion in the global organic movement over the past few years and is supposed to be approved by the global general assembly in India in November 2017.

Stephen Meredith (IFOAM EU): IFOAM EU vision for public goods under CAP

Organic is a strong part of a movement that sees sustainable food production and consumption as vital for the health of the environment, people and communities. Over the past two years, as part of the wider global discussions on Organic 3.0, IFOAM EU has been having different conversations with its members and likeminded groups on how to transform food and farming in Europe, as part of developing and implementing its Vision 2030 for Organic in Europe. To achieve the vision, IFOAM EU leads and supports the organic movement by investing strategic efforts in delivering organic on every table, providing a holistic answer for food and agriculture, and building fair and transparent food chains. In the EU, the Common Agricultural Policy has a significant influence on the development of agriculture in Europe including organic farming. However, by not putting farm sustainability at the heart of its architecture, the policy is not fit to address the challenges facing the agri-food sector from food security, to rural development and climate change. As part of implementing its Vision 2030, IFOAM EU is calling for a fundamentally new approach to the CAP that mainstreams the principle of public money for public goods - with organic farming as a leading approach.



16.30-17.30 WORKSHOPS 3

The bread line - exploring food pricing (LWA)

The age of cheap food has increased both food security for the poorest people in our society and the disposable income for everyone else. But does the cost



of food today even reflect the true cost of production and how do we balance farmers' rights to earn a living from sustainable agriculture with everyone's right to affordable food?

Chair: Rebecca Laughton (Landworkers' Alliance)

Humphrey Lloyd (Edible Futures/LWA): Exploring the politics of food pricing

Humphrey will be discussing changing historic trends in food prices, with specific references to the % of our income that we spend on food. Factors that affect this change will also be explored namely methods of production and developments in the retail sector. He will also be attempting to balance up the sometimes contradictory desires of farmers for high farm gate prices and everybody else's desire for 'affordable' food.

Lynne Davis (Open Food Network): Creating greater equality between producers, processors and retailers

Lynne will explore the relationship between supply chains and food prices and what innovative schemes are emerging to create greater equality between producers, processors and retailers.

Arable weed surgery (OK-Net Arable)

A range of arable weed experts will be available to advise farmers about addressing weed problems. At the end we will draw together with the experts



the key questions and potential solutions raised during the session.

Chair: Ambrogio Costanza (ORC) Facilitation: Katie Bliss (ORC)

Jos Pelgröm (Man@Machine): Weed control in a non-ploughing system

After thousands of years the farmer is thinking about a revolution: forget ploughing. He/she has heard and read a lot about the benefits of non-ploughing, he/she might've also heard about the problems with it, especially the weed control. Jos will focus on the methods and machinery to tackle these problems.

Lynn Tatnell (Weed biologist, ADAS): Perennial weed control in organic systems

All weed species to some extent can cause crop yield reductions and quality downgrade in both horticultural and agricultural systems. Perennial weeds are extremely challenging to control in organic systems, as often the increased element of cultural techniques can increase the spread of perennial species. Perennial

weeds compete with the main crop for water, nutrients and light and are often more effective in using available moisture than the crop resulting in limitations to the crop production. Controlling perennial weeds is more costly and time consuming than annual weed control and in some cases might affect the crop rotation. For most horticultural crops controlling perennial weeds prior to planting or drilling is easier rather than within the crop. For effective control an understanding of individual species biology and persistence will help to maximise control by manipulating weaker spots in their lifecycle. A range of control options are available including mechanical weeding, allelopathy, electrical weeding, cover cropping, cutting and mowing, but all vary depending on weed species and density present. With new technology and novel ideas, control options are becoming more diverse and an integrated weed management approach is always advisable.

Adrian Steele (WO Steele and Sons)

At WO Steele we have been growing organic cereals for close to 30 years. All the land is in a 6yr rotation, 3yrs clover, 3 yrs cropping; and there is no doubt that having a 3yr break is an important component of weed control, as is early grazing of the clover by sheep to ensure a good cover. Once the fields are cropped, then we use mechanical weeding, primarily by GPS steerage hoeing. We have done hand rogueing, but not by organised gangs. As weeds rise above the crop canopy we use a customised rotary topper, using corn-detasseller units from the USA, to cut off the green seed heads, and deposit them on the ground. After harvest we run sheep over the stubbles to graze off weeds, and also to try to get a germination before the ground is next cultivated. Every year is different, and we farm 500 hectares over a range of soil types, so can also use an einbok weeder on lighter land.

Stephen Moss (Stephen Moss Consulting): Annual grass weeds, especially black grass

Annual grass weeds, especially black grass, have become an increasing problem on many arable farms. This is a consequence of an increasing reliance on autumn sown crops (cereals and oilseed rape), earlier drilling (the proportion of the wheat sown in September has increased 10 fold in the last 40 years) and an inability to achieve adequate control due to herbicide resistance. These problems are a direct result of ignoring a critical element of the agroecology of black grass – about 80% of seedling emergence occurs in autumn. Sowing ever earlier means that an increasing proportion of black-grass emerges within the crop, rather than before sowing when it could be more easily killed.

A key element must be to capitalise on the extensive knowledge we have about the agroecology of grass-weeds such as black grass.

Creeping thistle: Successful control in organic farming





Available from the ORC stand, or download pdf from ORC website



Practical approaches to positive health planning in livestock (IOTA)

Healthy animals perform well; they will have high disease resistance as well as the absence of disease. We will discuss



practical methods for the development of healthy livestock and the management of disease.

Chair: Peter Savidge (OMSCo)

Tim Downes (Organic dairy farmer): Calf rearing for health and production

We are involved with the OMSCo export of cheese and infant formula milk powders; this has necessitated becoming free from Antibiotics very much along the same certification standards as some other countries. Therefore our health planning and prevention has to be scrupulous and trying to avoid stress and creating opportunities for disease to cause problems either immediately or in the future is our main consideration.

We health plan through our vets and use various other preventative measures which I will cover in more detail; minerals, grazing, trees, colostrum, cleanliness, disinfection, protocols, vaccination, homoeopathy and breed selection.

Peter Plate (Vet): Reducing antibiotic use through mastitis testing; farm trials and experiences

Experience and interim results on on-farm culture and selective treatment of clinical mastitis - an Innovative Farmers Field Lab. While the preventive use of antibiotics is banned in organic farming, our field lab explored the possibility of reducing their use in clinical mastitis treatment by culturing bacteria on farm and targeting treatments to Gram positive bacteria, as Gram negative (and 'no growths') have a high spontaneous cure rate. So far we have collected data from 176 cases from 8 dairies, about half conventionally treated and half cultured and treated if needed. The on-farm culture approach reduced antibiotic usage for mastitis treatments by about a quarter across all farms, but this varied from 0 to 60 % between different dairies. Clinical cure rates were good in both groups (well over 90 %), recurrence rates were similar (23 % in treatment cases, 26 % in culture cases) and so were cell counts in the remainder of the lactation (228,000 in treatment cases and 199,000 in culture cases). In those culture cases which were left untreated, the milk went into the bulk tank 9 days sooner than on treated cases. More cases are needed to perform a valid statistical evaluation of these figures.

The economic assessment of the method on a farm level depends highly on the ratio between Gram positive and Gram negative bacteria and 'no growths'", so before embarking on this approach it is recommended to get knowledge about the most prevalent bacteria.

Seed growing as an enterprise (OGA)

A look at the economics and practicalities of growing seed for sale and how best to fit seed production into your system.



Chair: Jason Horner (Leen Organics/Irish Seed Savers Association)

Hans Steenbergen (Stormy Hall /Seed Co-op): Growing seed and maintaining open pollinated vegetable varieties

I will explore the practicalities of growing vegetable seeds and try to illustrate this with some pictures and taking carrots and cabbage as an example to show what the critical points are in this process. Some of these critical points are: variety choice, growing conditions, selection, pollination, crop care, seed harvest.

Kate McEvoy (Real Seeds): Cleaning, drying and processing seed grown for sale – methods and kit

Vegetable seed grown for sale needs to be cleaned, processed and dried to an appropriate standard. Many farmers and growers imagine that these processes must need expensive and specialised machinery, and as such are put off the idea of growing seed commercially. However, in practice most small seed companies both in the UK and farther afield achieve excellent results with low tech equipment, often adapted or made on-farm.

Kate McEvoy outlines the basic underpinning knowledge needed to produce good clean saleable seed that will store well, and then looks at growing, harvesting and post-harvest techniques that can be used by new entrants to seed growing when they are processing different types of wet and dry seed.

Shining a light on the supply chain and looking at export opportunities (OTB)

The workshop will look at UK food chain challenges and potential solutions post-Brexit. Opportunities for growth domestically and globally have never been better. However, despite growth in the established market the



UK lags behind in farm production, retail sales and export. How can we strengthen the British organic base to ensure we are food secure whilst taking advantage of global market opportunities?

Chair: Adrian Blackshaw (OTB)

Lee Holdstock (Soil Association): Prospects for organic exports

Growth in virtually every other developed organic market continues to exceed that of the UK. Combine this with the prospect of a weak pound and explicit government support, prospects for exporters have never looked better. Soil Association Certifications' Supply Chain Development Manager, Lee Holdstock looks at global growth, market access, support available to business and considers the role of UK supply chains in capitalising on the opportunity.

Andrew Trump (Organic Arable): Rebalancing the market or hitting the buffers?

The UK is currently approximately 30% self sufficient in terms of organic animal feed, the same percentage for food security before World War II led to UK food shortages. US demand for organic animal feed spreading into Europe, historically lower Eastern European prices ending with improved standards, investment and adherence. We need the UK Organic food chain stakeholders to work together to increase conversion rates, share risk and reward through the value chain to develop resilient supply chains to continue to grow the UK organic market.



17:30 -17:45 Comfort break

17:45 - 18:45 Fringe sessions

Meeting future needs of advice for organic farming; a discussion. All advisers welcome. (IOTA)

This is a particularly important opportunity for advisers to think about the future role of IOTA, help ensure that it meets



your needs as well as contributing to the advisory support and extension priorities of ORC.

Research exchange for PhD/MSc students

This session will provide MSc and PhD students a chance to provide updates on their work in areas related to organic farming and agroecology. This can include plans for future research or results from completed work. As well as providing a useful forum on the latest developments the session will provide an ideal opportunity for sharing of methods and expertise and a chance to increase the impact of the work.

Please come along, contribute and take the opportunity to share your expertise and learn from others.

The Muddy Boot Innovation Bar. Innovative Farmers/Agricology

Innovative Farmers and
Agricology invite you to pull
up a chair to share knowledge
and ideas in the old fashioned
way - over a beverage!



Tables will be set up to focus AGRICOLOGY • on key topics including soil

health, pest and weed management, livestock health providing an opportunity to share problems, ideas and solutions with farmers and researchers engaged with the Innovative Farmers Field Labs

A Matter of Scale: Financial Viability and Barriers to Productivity

In our Hands, the seeds of a better food system. Short films (LWA)

The A Matter of Scale study into small farm productivity will be published in February 2017, accompanied by five short films, featuring eight of the most productive holdings. Two of these films, Financial Viability and Barriers to Productivity will be shown in this workshop with Rebecca Laughton.

Screening of the taster of **In Our Hands, The Seeds** of a Better Food System – a film about the food system and how to transform it.

19:30 Conference dinner, bar and entertainment with Mr Stinkski's Remedy





Biographies - speakers and chairs

Rob Alderson

Rob Alderson is a vegetable grower whose previous jobs include fruit & veg buyer at Unicorn Grocery and co-founder of Manchester Veg People, an organic catering wholesaler.

Sophie Alexander

Sophie manages 400 ha mixed organic farm at Hemsworth in Dorset. She is a director of Organic Arable and active in local branches of the NFU and CLA. For two years Hemsworth has been participating in the Innovative Farmers compost tea trials and is now also part of the controlled aerobic composting field lab. Twitter: @HemsworthFarm





Dominic Amos

Dominic is crops researcher at the Organic Research Centre, with a background in on-farm research and field trials. He works on the GREAT Soils project looking into soil assessment methods and on-farm green manure trials, crop and food diversity through ancient cereals and novel cropping, and agronomic screening of old cultivars and landraces of wheat and barley for their potential to be used in breeding programm

and barley for their potential to be used in breeding programmes for low input and organic production. Dominic also works to identify challenges and solutions in organic arable production to help improve yields and is a researcher in various field labs with Innovative Farmers.

Twitter: @OrgResCent @GREATsoils

Heather Anderson

Whitmuir is a working mixed organic farm just south of Edinburgh, in the Scottish Borders. As well as running an award winning organic farm shop and restaurant, the farm hosts a wide range of educational events and courses. Heather currently runs the CCF funded 2000m2 Field of Enquiry programme, 10 days of public engagement on food, farming, health and climate change.

Twitter: @whitmuirfarm

Markus Arbenz

Executive Director of IFOAM – Organics International since 2009. IFOAM - Organics International is the global organic umbrella with 800 members in 120 countries with the purpose to cultivate change for true sustainability in agriculture. Markus and his team set global landmarks,

organize the Organic World Congress, advocate to international bodies such as the UN, maintain the global organic guarantee system, implement development programmes and train future organic leaders.

Twitter: @IFOAMorganic

Spiridoula Athanasiadou

Spiridoula is a qualified veterinarian with a PhD on the interactions between nutrition and parasitism. She is working in the Animal and Veterinary Sciences Group, and is currently leading an EU programme on sustainable

and is currently leading an EU programme on sustainable approaches to control parasitism in ruminants. She is interested in how nutrient supplementation can help host resilience and resistance and she is investigating this in ruminants and model organisms.



Chris is Head of Standards at the Soil Association. Chris grew up on the family farm, has a degree in Agricultural Science and MSc in Agricultural Engineering. Following several years in agricultural research and practical farming he became an independent agricultural consultant and worked regularly for Scottish Organic Producers Association undertaking organic inspections, certification, research and education. Chris has worked for the Soil Association since 2007 and in his current role since late 2009. He is the UK Council Member for the IFOAM EU Group and is closely involved in the development of the EU legal framework for organic farming & representing the interests of IFOAM EU UK members at EU level. His work also involves the development of private standards for organic food, farming, aquaculture, textiles and cosmetics. Twitter: @SoilAssociation

Adrian Blackshaw

Adrian is a Partner in a commercial organic apple and walnut business in Herefordshire. He has experience in senior roles in a number of industry sectors including investment banking and has served on several boards. Until recently he was Chair and joint CEO of a medical product development company. Adrian has been an organic farmer for 20 years.

Katie Bliss

Katie's passion is enhancing knowledge exchange between farmers and deepening connections with the research community in order to catalyse innovation and progress towards more sustainable farming systems, regardless of labels. Works on Agricology.co.uk, an online platform for sharing information on sustainable farming practices and coordinating a network of Farmer Innovation Groups across Europe as part of the OKNetArable project. She studied Agroecology at Wageningen University and is putting it into practice on the family arable farm in Cambridgeshire.

Twitter: @katie_bliss9 @agricology @OrgResCent

Frederik Bonestroo

Fred has been the vegetable grower at Duchy Home Farm since 1999. He worked as an organic seed potato grower in Holland between 1996-1999 and prior to that studied biodynamic farming at Warmonderhof in Holland.



Jonty Brunyee

Jonty is a Director of the Pasture Fed Livestock Association, an organic farmer in the Cotswolds and a Senior Lecturer in Farm Business Management at the Royal Agricultural University near Cirencester. He has recently completed a Nuffield Farming Scholarship sponsored by the National Trust looking at farm

sustainability which reinforced his commitment to regenerative and organic systems, and the direct sales of rare breed beef and lamb from his diverse 'salad bar' pastures.

Twitter: @ConygreeFarm @PastureForLife @RoyalAgUni

Paul Burgess

Paul is Reader in Crop Ecology and Management at Cranfield University, where he leads modules on the MSc agri-food and environment programmes. He is currently leading a European project, called AGFORWARD (www.agforward.eu), which is promoting agroforestry across Europe.

Twitter: @CranfieldUni @AGFORWARD_EU



Dave Chapman

Dave has been a tomato grower at Long Wind Farm ,in East Thetford, Vermont USA since 1984. Long Wind Farm is one of the pioneer soil-based tomato production units and Dave is convinced that the quality of his tomatoes is directly related to the way he treats his soil. In 2014 he started the campaign Keep

the soil in Organic and the Real organic movement along with several other US based organic growers who were all concerned over the integrity of Organic certification. His campaigns have led to the recent consultation exercise run by the National Organic Standards Board on so called hydroponic organic systems. Twitter: @LongWindFarm #keepthesoilinorganic



Gemma Clarke

Gemma graduated Sheffield University with a degree in Business Studies. Worked within the seed industry for 9 years working closely with plant breeders from the UK and Europe, trialling material and bringing varieties to market.

With a passion for the organic market and bringing varieties through which offer both on farm and end user benefits within the organic supply chain.



Ambrogio Costanzo

Ambrogio is the Head of Crops at ORC. He has been studying agroecological approaches during his MSc, PhD and Post-Doc, including multi-actor, collaborative research and innovation in research approaches. Works so far have mainly focused genetically diversified crops and crop species mixtures and their outcomes in terms of weed suppressive ability, yield and resilience in arable systems. Twitter: @OrgResCent @diversifood_eu



Finn Cottle

Finn spent more than 20 years in the commercial buying function of two of UKs largest supermarkets focusing on foods, as well as later holding director level positions in a number of food companies supplying into the multiple

retailers. More recently, she has used these experiences to help other organisations and smaller businesses/brands with their strategy for successfully delivering growth in the UK market. Through her work as a trade consultant with the Soil Association, she has concentrated in the world of organic and has

worked with many businesses who are selling into this market. Finn spends most of her time keeping up to date with the trends in food innovation and what consumers are buying and why.

Twitter: @SoilAssociation

Simon Crichton

Simon joined Triodos in 2009. He is responsible for organic food, farming and trade at the Bank. Triodos actively supports the organic market by lending to some of the UK's leading organic businesses - from farmers, producers and

processors to retailers and restaurants. Simon is also actively involved in the Community Supported Agriculture movement and is Financial Advisor to the Board of Federation of City Farms and Community Gardens.

Twitter: @Simon_Crichton @triodosuk

Lynne Davis

Lynne is a farmer and food sovereignty activist based in Bristol. Her work focuses on social innovation in production and distribution of food. Lynne is CEO of the Open Food Network UK, a web platform working to help local food enterprise grow and innovate. She has worked with producers, communities and businesses across the

country, exploring the journeys different groups have taken to make ethical $% \left(1\right) =\left(1\right) \left(1\right$ distribution viable. She'll be sharing lessons learning in pricing the process from harvest to homes. www.openfoodnetwork.org.uk

Twitter: @OpenFoodNetUK

Polly Davies

Polly is a mixed organic tenant farmer in South Wales. The farm has a small butchery and meat box delivery business, which supplies the local community with beef, lamb, pork and Mutton. www.sladefarmorganics.com Twitter: @sladefarm Facebook - Slade Farm Organics

Katharine Dennis

Katharine has worked at BQP for 9 years and currently works as Assistant Technical Manager. In her role Katharine is involved in all elements of compound feed supply including raw material sourcing. Katharine also sits on the Waitrose Farming Partnership Responsible

Feed Sourcing Group. The group is made up of participants from the group of businesses supplying livestock protein products (chicken meat, pork, lamb, beef, turkey, dairy, fish, ducks and eggs) into Waitrose's own brand and Duchy ranges of products. The group looks at opportunities within each business to improve both the sustainability of animal feed and feed ingredients used.

Tim Downes

Tim is partner on a family organic dairy and beef farm in Shropshire. Tim has been managing the farm throughout its organic production with wife Louise and parents who run the beef enterprise. They have been measuring grass to help

decision making for 10 years and using a mix containing chicory/plantain in all grass clover mixes for the last 8 years. Tim has an involvement with R&D through sitting on AHDB Dairy's research board. He is a board member of OMSCo and Ambassador for the Woodland Trust. He has an involvement with Harper Adams University as a host for educational study visits.

Twitter: @clovermad

Robert Fraser

Robert lives in Herefordshire where he farms traditional breeds of cattle, sheep and pigs and, until recently, managed an award winning farm shop and box scheme. He is a passionate advocate of local, sustainable and organic farming with a particular interest in agroecology and permaculture. Robert now also works for the Real Farming Trust, and is involved with several projects,

including the Enlightened Agriculture Impact Fund, the APPG on Agroecology and developing and promoting the concept of micro-dairies. He is also on the advisory committee for the ORFC.

Richard Gantlett

Richard spent some years farming conventionally before converting the family farm to organic methods in 1998. The farm is now 650ha together with a pedigree Aberdeen Angus suckler herd of some 230 animals, producing wheat, barley and beans, finished cattle and breeding stock, electricity and timber. Investment in research is the key to a progressive, sustainable and secure future, key to the system

are: No ploughing since 2003; diverse ley mixtures of 32 varieties from 23 species; dynamic cattle grazing of leys; use of bio cultivations; closed farm and biodynamic farming.

Rachel Harries

Rachel is Producer Skills Manager at the Soil Association. She runs the Future Growers scheme and is involved in various projects supporting new entrants to farming, including access to training, land, finance and business advice. She works on a



European level (for the time being) as part of an EU wide network on access to land and sits on the board of the Biodynamic Land Trust. In 2013 she cofounded the Community Supported Agriculture (CSA) Network UK. Rachel has worked in the local food sector for over a decade, and is passionate about workers' rights and sustainable livelihoods.

Twitter: @rachel_harries @SoilAssociation

Kevin Harrison

Kevin is a sheep farmer from near Bath, and plays an active role in the National Sheep Association (NSA). He recently served a term as chairman of the NSA Marches Region, and is a member of both the NSA English Committee and UK Policy and Technical Committee. Kevin was a finalist for the 2011 Farmers Weekly Sheep Farmer of the Year, and is part of the AHDB Progressive Sheep Group. In his

spare time, Kevin is a very gifted saxophone player! Twitter@ @natsheep

Roger Hitchings

Roger retired from his post as Principal Consultant in Information Services at the Organic Research Centre in 2013 after 15 years of service. His background is in soil science, education, and organic vegetable production. His work at ORC focused on knowledge transfer including commercial consultancy, OCIS visits, training delivery,

and project engagement. He was a member of ACOS and Chair of its Technical Committee. He is a pool member of EU Expert Group for Technical Advice on Organic Production (EGTOP). As an independent IOTA accredited consultant he is still involved in the delivery of training and advisory work. He is Secretary of the Organic Growers Alliance.



Having been with the Soil Association Certification since 1999, Lee has broad experience of the certification, technical and commercial needs of a wide range of organic businesses. Lee is currently Soil Association Certification's Supply Chain Development Manager and leads on various trade initiatives designed to help grow

organic, from export and food service supply to training to improve business understanding of organic.

Twitter:@SoilAssociation

Stuart Holm

Stuart is a Chartered Ecologist and has worked on woodland creation with the Woodland Trust for 6 years covering many agroforestry and agricultural projects including currently a scheme with the Game and Wildlife Conservation Trust to look at woodland creation with variable tree density and retaining a viable understory grazing system without the loss of Basic Farm Payments as well as a 6.5ha grazed edible woodland system on a farm in Nottinghamshire. Previously Stuart worked for 11 years as an adviser with the Farming and Wildlife Advisory Group (FWAG). He has his own small farm in Leicestershire farming mainly arable with a small flock of sheep and around 50 acres of mature woodland.

Twitter: @WoodlandTrust

Jason Horner

Jason Horner is a vegetable grower in the West of Ireland. He is a Director of the Irish Seed Savers Association and a committee member of the Organic Growers Alliance (UK). He also coordinates an apprentice programme for the Organic Growers of Ireland. In 2010 he graduated with an MSc. in Organic Farming from the SAC in Aberdeen.

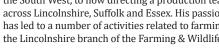
Twitter: @leenorganics

Phillip Hubbert

Born and educated in Boston, Lincolnshire, Further Education at Kesteven Agricultural College. Early career years were spent in growing intensive vegetable crops and flower bulbs. Phillip has been involved in crop production in many parts of the UK. This has included growing carrots and parsnips in Lincolnshire, daffodils in Cornwall and

the South West, to now directing a production team growing leafy salads across Lincolnshire, Suffolk and Essex. His passion for the local environment has led to a number of activities related to farming. He was Chairman of the Lincolnshire branch of the Farming & Wildlife Advisory Group (FWAG)







and sat on the local steering committee of the Campaign for the Farmed Environment. (CFE). Hobbies include bird watching, walking & golf. Twitter @JepcoMarketing

Steven Jacobs

 $\widetilde{\text{OF\&G}}$ Business Development manager. Steven has been working in food and farming for 30 years as a market gardener, a greengrocer, a caterer and a farm labourer. Following his work with the Permaculture Association, Co-operative Wholesale Society, Fresh & Wild (now Wholefoods Market) and Essential Trading Co-operative

Steven joined OF&G in 2007. Steven represents OF&G on a number of roundtables and working groups in the UK and across Europe including the NFU, Sustain, Agricology and IFOAM EU and is the coordinator for the annual organic farming conference, National Organic Combinable Crops.

Twitter: @Jakedrum @ofgorganic

Roger Kerr

CEO at OF&G. Roger is from a farming background and has had an interest in organic production methods going back to his time as a student at Harper Adams in the mid 1980's. After a spell in the agricultural supply industry Roger joined Promar in the mid 1990's and where he began to specialise in organic production. He was involved in the

formation of Calon Wen, the Welsh organic dairy farmer co-operative, which he ran of 12 years. After a short spell at Dairy Crest Roger joined OF&G in late 2014.

Twitter: @RogerKerrOFG @ofgorganic

Nic Lampkin

Nic is Director of The Organic Research Centre and has been involved in organic farming research since the 1980s, with a particular focus on economic and policy issues. He is author of Organic Farming and co-editor of the Organic Farm Management Handbook. He has played a leading role in developing support policies for organic farming in Wales, England and the EU as the co-ordinator of the English

Organic Forum, organic sector representative on the Defra Agri-environment Stakeholders Group, lead organic policy adviser to the Welsh Government, and a permanent member of the EU Expert Group for Technical Advice on Organic Production (EGTOP). In 2015 he was made an Associate of the Royal Agricultural Societies.

Twitter: @OrgResCent

Tom Lancaster

Tom has worked in agriculture policy for the RSPB since 2011, with a focus on the Common Agricultural Policy. Since the referendum on EU membership, his attention has turned to what policies are needed in the future to secure more sustainable land management. Before working at the

RSPB he worked for Natural England, and has a degree in Geography.

Twitter: @tommlancaster

Tim Lang

Tim is Professor of Food Policy at City, University of London's Centre for Food Policy. Hill farming in Lancashire UK in the 1970s formed his interest in the relationship between food, health, environment, culture and political economy. He is co-author of Food Wars (2015), Unmanageable Consumer (2015), Ecological Public

Health (2012) and Food Policy (2009). His new book (with Pamela Mason) Sustainable Diets (Routledge) is out in March.

Twitter: @ProfTimLang

Rebecca Laughton

Rebecca is a small scale organic grower, a researcher and campaigner with the Landworkers' Alliance, and supports small farmers seeking planning permission for agricultural workers' dwellings.

Twitter: @LandworkersUK

Margi Lennartsson

Margi has worked at Garden Organic for more than 25 years leading the organisation's research and outreach programme activities. She has been involved in a wide range of research, development and knowledge exchange projects related to organic horticulture and food production systems. She is passionate about the

important benefits that can be achieved by encouraging and supporting people to take an active role in organic growing - benefits for the



Tony Little

Tony runs his own business the 'Sustainable Farming Consultancy' which supports organic and agroecologically-based food and farming businesses. He grows seed potatoes for Sarpo Potatoes Ltd (SPL) and is the Field Officer for 'Sustainable Potatoes Wales', a project funded by Welsh Government and the EU as part of the RDP for Wales which supports SPL to increase its grower base and streamline its grading, packing and storage systems. Twitter: @sustfarming1

Humphrey Lloyd

Humphrey is a market gardener on the outskirts of Bristol who supplies veg and salad to local restaurants, as well as through a CSA scheme called Salad Drop. He is also an active core group member of the Landworkers' Alliance. Twitter: @LandworkersUK

Kate McEvoy

Kate is a founder member of the Real Seed Collection and has been growing and selling vegetable seed since 1998. She also spends time writing, campaigning and teaching seedsaving workshops, and hopes to encourage all gardeners and growers to consider producing at least some of their own seed. Real Seeds also campaigns for better and more appropriate seed variety legislation that

contributes to rather than working against a resilient and diverse seed supply for our farmers and growers.

Vincent Mears

Vincent and wife Sharon run Treddafydd Farm, a 7.5 acre organic smallholding near Pwllheli in Gwynedd, with 200 laying hens, soft fruit and vegetables mostly for use in preserves sold retail and wholesale under the Treddafydd Organic brand. Vincent has a degree in agriculture from Bangor and learned gardening from one grandfather and small scale farming from the other. After varied work on large

farms and estates, garden design, garden estate maintenance and landscaping business, he took on Treddafydd in 2006. Chairman of the Arfon and Dwyfor Local Access Forum and the Porthmadog Local Produce Market.

Mark Measures

Mark has over 30 years experience of organic farm management, advice, policy and research, working independently and with Organic Research Centre. He is Director of the Institute of Organic Training and Advice and joint editor of the Organic Farm Management Handbook.

Peter Melchett

Peter has been Policy Director of the Soil Association, since 2001. He runs an 890-acre organic farm in Norfolk, is a member of the BBC's Rural Affairs Committee, and was a member of the Government's Rural Climate Change Forum and Organic Action Plan Group, and the Department of Education's School Lunches Review Panel. He received an honorary doctorate from Newcastle University in 2013. As a former

member of the House of Lords, he was a Labour Government Minister 1974-79, at the Departments of Environment, Industry, and Northern Ireland (covering education and health). He has been President or Chair of several conservation NGOs, including the Ramblers and Wildlife Link, and was Director of Greenpeace UK (1985-2000). Greenpeace launched their global campaign against GM crops in 1997, and Peter was one of 28 volunteers arrested for removing GM maize in 1999; all the volunteers were found not guilty in the subsequent court case. Twitter: @PeterMelchett @SoilAssociation

Josiah Meldrum

Josiah is co-founder of Hodmedod, a company that aims to reacquaint or introduce the UK to over-looked or new British field crops – such as dry fava beans, carlin peas and quinoa. Emerging from a community project that

researched and demonstrated more resilient diets and food systems in 2012, Hodmedod initially worked with British-grown beans and peas destined for export. Today the business increasingly works directly with farmers and growers to secure supplies of existing crops and develop new ones.











Hodmedod believes that for some higher value, lower volume dried seeds and grains there's an overlap between horticultural and arable approaches to cropping; we're keen to explore the opportunities (and obstacles) these crops present to organic growers.

Twitter: @Hodmedods

Stephen Meredith

Stephen Meredith is Deputy Policy Manager with the International Federation of Organic Agriculture Movements (IFOAM) EU working on EU agri-food policy. Within the organisation, he facilitates IFOAM EU's farmers group with his work primarily centred on the Common Agricultural



Policy and other related agricultural and environmental policies relevant to the farming sector. From a suckler beef farming background Stephen resides between Belgium and Ireland.

Twitter: @IFOAMEU

Paul Moore

OTB CEO & Director, Wintermoore Associates. The sole aim of the Organic Trade Board is to promote sales of certified organic food, drink, cosmetics & textiles. Paul ensures the delivery of OTB's strategy and programs to promote the value and sales of organic products. His role is to maximise the return to industry from our integrated consumer marketing campaign. Paul has been an integral part of the



team that has seen over £3.2 million marketing investment in the industry. Paul believes in close collaboration with members to deliver coordinated marketing activities to drive growth for the sector.

Twitter: @organicukfood

Diane Mitchell

Diane Mitchell is currently the Chief Environment Adviser at the NFU. In this role, Diane has an overview across the environment team and the range of agri-environmental policies affecting farmers, which includes agri-environment, biodiversity, soils, waste and water. Diane represents the NFU at an EU level and is currently the vice-chair of the



COPA-COGECA Environment Working Group. Before joining the NFU, Diane was a researcher at Cambridge University Farm and she has a PhD in Soil Science from the University of Aberdeen.

Twitter: @NFUtweets

Stephen Moss

Stephen studied agriculture at Wye College, London University, and then spent over 40 years in weed research mainly on grass-weeds, and black-grass in particular. Retired from Rothamsted in 2015 and now operates independently as Stephen Moss Consulting.



Stephen has always considered the practical application of research to be very important, and it was largely due to this emphasis on knowledge transfer that he was awarded the Royal Agricultural Society of England's Technology Award for 2009 and a BCPC award in 2014. As well as publishing 235 research papers, book chapters and technical reports in hiscareer, he has contributed to over 353 articles in the popular farming press in the last 20 years and given literally hundreds of talks to farmers, consultants and agrochemical company technical staff.

John Newman

John has been farm manager at Abbey Home Farm, Cirencester since 1992. A family partnership of 650 ha of award winning mixed organic farming comprising of dairy, sheep, pigs, poultry, beef, arable, grassland and vegetable enterprises. There is also an award winning farm shop and café and on-farm processing of dairy and poultry products



and a butchery. The farm was a founder member of The Organic Milk Suppliers Co-Op Ltd and has been involved with a number of collaborative organic marketing initiatives. John is a director of Organic Arable and chairman of the Soil Association agricultural standards committee.

Twitter: @rugbyfarmer8

Pip Nicholas-Davies

Pip is a Senior Researcher and Lecturer in the Institute of Biological, Environmental and Rural Sciences, Aberystwyth University. Her research is focused on organic and sustainable livestock farming systems, and the socioeconomic aspects of farming in particular. She participated

in the recently completed "Cantogether" - Crops and Animals Together, European funded research project on mixed farming, and her involvement in that led her to participate in the European Innovation Partnership Focus Group on mixed farming, which brought together researchers, advisors and farmers from across Europe to identify the key drivers and constraints to mixed farming across Europe.

Twitter: @ibers_aber

Susanne Padel

Susanne is Senior Programme Manager at The Organic Research Centre, covering a wide range of projects related to knowledge exchange, market and business, livestock and policy support. Susanne has been involved with organic farming since the early 80s. Susanne worked as aconsultant



for organic farming in Germany before moving to the UK and going back to University and working in organic farming research in 1993, joining ORC in 2009. Susanne holds a degree in general agriculture and a PhD in agricultural economics from Aberystwyth University on conversion to organic dairying.

Twitter: @OrgResCent

John Pawsey

John is a fourth generation farmer from Suffolk. The farm is mixed with 650 hectares of arable land and 650 sheep. John also farms an additional 920 hectares for neighbouring farmers under farm management contracts. All the farms are managed organically. He is a Director of Organic Arable, a member of



IFOAM UK Group, the Soil Association Farmer and Grower Board and the NFU's Combinable Crops Board and Organic Forum. Diversifications on the farm include a HLS Scheme, commercial and domestic rentals and various renewable energy projects including a photovoltaic array and 2 wood chip boilers.

Twitter: @hanslope

Bruce Pearce

Bruce joined The Organic Research Centre in 1999 and is currently Deputy Director. He is responsible for overseeing the research programmes, contracts and personnel of the organisation. His research activities have covered a wide range of areas including plant breeding,



seed and variety rights, crop production, sustainability assessment and participatory research approaches. Prior to joining The Organic Research Centre he was part of MAFF's Chief Scientists Group and worked for the Consumers Association's "Gardening Which?" magazine. He has a degree in Biological Sciences and PhD in Horticulture.

Twitter: @BearDen64 @OrgResCent

Jos Pelgrom

Born on a farm in 1955, Jos started with driving tractor in 1959 and stopped with this in 2015. Always a farmer, always an organizer. he started organic farming in 1978 as a lonely cowboy, far away from home. All his neighbors



thought that he had lost hismind. He ran Warmonderhof, the famous biodynamic school in Holland, from 1990 till 2000. From 2000 till 2007 he has been the chief of Demeter-Holland. From 2003 till 2015 farmer/chief of Loverendale, biodynamic since 1926. In 2016 Jos and Ana started Man@ Machine - manatmachine.com Together they have 9 children and a lot of work to do, with love, with fun.

Peter Plate

Peter works as a practicing farm vet at Endell Veterinary Group in Salisbury and has a special interest in organic farming. He is a member of the Soil Association Standards Committee, a regular contributor to the Organic Farming Magazine, an Innovative Farmers Coordinator and has recently reviewed the cattle section of the online compendium Farmhealthonline.

John Purcell

Established in 1989, Good Herdsmen is truly deserving of its name, a genuine respect for its livestock and a deep commitment to sustainable practices. Good Herdsmen is Ireland's largest organic meat processor and also farms 1000 acres to organic principles. We supply all of our domestic market with retail packed organic meat. We've established



export markets in 9 European countries for our grass fed under 36 months steer/heifer beef. Our customer profile includes some of the best retail, food service and organic meat packers in Europe.

Ben Raskin

Ben has been working in horticulture for over 20 years. He is currently: Head of Horticulture at the Soil Association, project manager of Eastbrook Farm Agroforestry, and also works freelance as an author and horticultural advisor. Ben has a wide range of experience working with growers at all levels of production. His own experience includes; running a walled

garden in Sussex supplying a Michelin starred restaurant, working for



Garden Organic at their gardens in Kent. Ben also set up and ran the 10 acre horticultural production at Daylesford organic Farm, before moving to the Welsh College of Horticulture as commercial manager.

Twitter: @Ben_Raskin @SoilAssociation

Neil Rowe

Neil has 35 years' experience managing high performance beef and dairy farms, working with both conventional and organic systems. In 2004 he was awarded a Nuffield scholarship to study 'Voluntary milking systems and automated milk harvesting'. He has a reputation for innovation, sustainable farming and knowledge transfer, being a regular speaker at conferences and farmer meetings. For the last ten years, alongside farm management, Neil has been providing agricultural consultancy to farmers and industry. In the last 4 years, has been a finalist or winner in 4 national awards. For 25 years, he has been an Ambassador for the charity Send a Cow. The 'University of Life' has taught him that "the cutting edge is also the bleeding edge"

Oliver Rubinstein

Oliver is Business and Markets Researcher at the Organic Research Centre. Having joined the ORC in April 2016, he previously worked in the Food Chain team at the National Farmers Union - where he covered organics- as well as spending a season as a trainee grower at Daylesford. Oliver completed his undergraduate degree at the University of



Exeter and after a spell as an Economic Development Officer at Devon County Council, obtained an MSc in Sustainable Agriculture from Harper Adams University. His role at the ORC mainly involves socio-economic research and Oliver is also part of the team responsible for producing the Organic Farm Management Handbook.

Twitter: @olirubes @OrgResCent

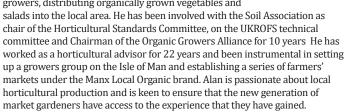
Peter Savidge

Peter is currently Technical Manager with OMSCo, with special responsibility for helping OMSCo members meet the exacting quality and specification standards demanded by OMSCo's new and developing export markets. Prior to joining OMSCo he was Principal of Holme Lacy College, Hereford where with the assistance of Mark Measures, he converted the College farm and estate to organic production and introduced elements of organic farming principles and production into the curriculum.

Twitter: @omsco

Alan Schofield

Alan has been an organic vegetable grower since 1982, running Growing with Nature in Lancashire with wife Debra and son Christopher, working closely with 4 other organic growers, distributing organically grown vegetables and



Twitter: @OGAgrowers

Wendy Seel

Wendy has been growing organic vegetables commercially since 2005. She owns an award-winning business called Vital Veg. Wendy is passionate about innovation in organic growing, and runs many on-farm



Duncan Sinclair

Duncan joined Waitrose in January 2007 as Agriculture Manager covering the Meat, Poultry and Dairy sectors. He has responsibility for the Waitrose livestock supply chains, which have been established over the last 25 years, and works closely with the processors' and their teams. Delivery of the Waitrose

Agricultural Strategy is the framework for focused activity and development of the producer groups moving forward under the Waitrose Farming Partnership banner. He was made a Fellow of the Royal Agricultural Societies in 2015.

Io Smith

Jo studied for a PhD on assessing the value of agrienvironment schemes for soil biota with the Centre for Agri-Environment Research at the University of Reading, joint with the Soil Biodiversity group at the Natural History Museum. She has been working at The Organic Research Centre since June 2009. As Principal Agroecology

researcher, Jo is responsible for the agroforestry programme, and is working on a range of European projects investigating the value of agroforestry as a way of reconciling production with protection of the environment.. Twitter: @OrgResCent

Laurence Smith

Laurence is Senior Sustainability Researcher at The Organic Research Centre (ORC). His work is focused on the development and application of sustainability assessment tools and farm-system modelling. Laurence is leading work to assess the environmental, economic and social

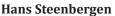
sustainability of organic and low-input farming systems. He is also pursuing a part-time PhD at Cranfield University on the impacts of a large-scale conversion to organic farming in England and Wales.

Twitter: @OrgResCent

Adrian Steele

Adrian is a partner of WO Steele and Sons, Chapel Farm, Netherton, Pershore Worcestershire. Married with three children, Adrian is a qualified solicitor, and a founder shareholder of Organic Arable. An enthusiastic collaborator, Adrian was chairman of the Cotswold Sheep group, and helped found Graig Producers. He share

farms three holdings on top of Chapel farm, and has dairy followers from Bretforton House Farm, vegetable growers Hopscotch Organics based at Chapel Farm, as well as a flock of sheep, on the land. Adrian was Chair of the Producer Board at the Soil Association, and served two terms as a trustee.



Hans grew up in the Netherlands and trained in Biodynamic Agriculture at Warmonderhof. He worked for a short time on a Dairy Farm in Canada and did gardening work in Holland with special needs people. In 1982 he moved to Botton Village Camphill Community, responsible

for Stormy Hall Farm, which was bought in 1987. After converting the farm to Biodynamic, he started to save seeds of farm crops (barley and swedes), which led to the start of Stormy Hall Seeds in 1993. With the help of the Biodynamic seed group of the Biodynamic Association they started to grow, process and distribute biodynamic and organic vegetable, herb and flower seeds. He is a founding member of the Seed Co-operative (Biodynamic and Organic Plant Breeding and Seeds Ltd.).

Twitter: @seedcoop

Christopher Stopes

Christopher has over 25 years experience working with European Commission and parliament, national governments, NGOs and corporate clients. He is President of the International Federation of Organic Agriculture Movements

(IFOAM) EU Group. He is an expert in the development of sustainable food and farming systems: policies, strategies, action plans and innovative techniques for production, processing and supply chain development. He was previously Head of Research at the Organic Research Centre - Elm Farm and has degrees in biological sciences and agriculture. He is Chair of the EU Commission Civil Dialogue Group on Organic Farming and a Board Member and Trustee of Pesticide Action Network - UK. He is Director of EcoS Consultancy, established in 1997, providing research, technical and market development services for sustainable food and farming with a primary focus on organic, climate change, animal welfare and pesticide policy.

Twitter: @IFOAMEU

Phil Sumption

Phil is Research Communications Officer at ORC having previously worked as a researcher at Garden Organic and as a full or part-time grower. He is a director of the Seed Cooperative, on the committee of The Organic Growers Alliance, is editor of The Organic Grower and has contributed to a number of books. Twitter: @PhilSumption @OrgResCent @OGAgrowers

Vicki Swales

Vicki is Head of Land Use Policy for RSPB Scotland where she is responsible for overseeing the RSPB's policy advocacy work on agriculture, fresh water and climate change and land use issues. She has worked for RSPB Scotland for the past 7 years and prior to





that worked for the Institute for European Environmental Policy and later as a freelance land use policy consultant. Vicki has a BSc (Hons) degree in Agriculture from the University of North Wales, Bangor and an MSc in Natural Resource Management from Edinburgh University. She was a non-executive Director on the Board of Assured Food Standards (2001-2008) and has contributed to a number of initiatives and advisory groups including the Taskforce for the Hills, Woodland Expansion Advisory Group and the IUCN Peatland Inquiry. Twitter: @RSPBScotland

Lynn Tatnell

Lynn is a Senior Research Scientist at ADAS Boxworth, specialising in weed biology, with 20 years' experience of practical weed management in agricultural and horticultural cropping systems. Her main area of expertise includes a

detailed knowledge of general weed biology and ecology, including dormancy, germination and lifecycles of UK grass and broad-leaved annual and perennial weeds. She also has in-depth experience of sustainable weed management systems including the integration of chemical and cultural control in arable crops predominately. Lynn is the Chairperson for the UK Weed Liaison group and secretary for the BCPC (British Crop Protection Council) Expert Weeds Working Group. She is an active member of the European Weed Research Society. Twitter: @ADASGroup

Iain Tolhurst

Organic producer since 1976, organic advisor and tutor since 1984. He is a leading figure in the organic movement. Iain is internationally recognised as highly experienced in advisory services and has worked for many

individuals and government departments in many parts of the world. His $8\,$ ha vegetable farm is a commercial enterprise but also acts as a demonstration unit and teaching centre for stockfree, agro-forestry and agroecological principles of production. The farm grows a wide range of organic vegetables all sold locally. Farm walks and seminars are a regular events there, and visitors from many backgrounds and a wide range of countries come along to experience the inspiration and practice.

Andrew Trump

Andrew runs Organic Arable the only wholly organic grain marketing business in the UK. Organic Arable is run by farmers and works differently from other grain traders working on transparent fixed commission rates and seeking long-term supply agreements so members can grow crops for a known market. Twitter: @organicarable

Nick Turner

Nick has worked for Defra for the past 18 years working in a number of policy roles covering rural policy, carbon capture and storage, and protected and non-native species. He was involved in the development of the last two rural development programmes,

worked on negotiations for a proposed Carbon Capture and Storage Directive and oversaw a review of wildlife management legislation. He has also worked as a policy adviser covering rural development and local food at a regional level in the Food, Farming and Rural Development team at Government Office for the South West. Nick now heads up the Organic, Horticulture and Potatoes team in Defra. He has led on the negotiations for the new proposed Regulation on Organic Production and Labelling of Organic Products.

Edith T. Lammerts van Bueren

Edith is senior researcher in Organic Plant Breeding at the Louis Bolk Institute (NL) and also professor of Organic Plant Breeding at Wageningen University since 2005. She was cofounder and chair of the European Consortium for Organic Plant Breeding (ECO-PB) for 10 years, and is currently chair of the Section Organic and Low-input Agriculture of EUCARPIA (European Association for Research for Plant Breeding). Twitter: @LouisBolk

Anja Vieweger

Anja is Senior Researcher at The Organic Research Centre. With a background in horticulture, specialising in vegetables, she has several years of experience in horticulture and soils research. She joined ORC in 2011 and is working on; health concepts in agricultural systems, links between the health of soil, plant, animal and human; soil health assessment in the UK; participatory research; horticulture and soils aspects for Innovative Farmers. Twitter: @OrgResCent @GREATsoils

Chris Wardle

Chris is an organic farmer (beef and sheep), a Director of the Organic Livestock Marketing Co-operative, author (Changing Food Habits in the UK) and Rural Development Advisor (Africa, China)



William Waterfield

William spent 15 years in farm management before moving into consultancy. For the last 19 years he has worked as an independent consultant as a member of the Farm Consultancy Group helping organic farmers and growers through the conversion process. His work is now mainly focused on



helping them to improve both the financial and technical the performance of their business. The majority of his clients are dairy and livestock farmers but increasingly he is working with other farmers who are looking for alternative solutions to the current farming crisis. He specialises in helping producers develop more sustainable and robust farming systems. Having undertaken a Nuffield scholarship into 'Information and Technology Transfer in the Dairy sector' he works with a number of producer and discussion groups. He is a long standing member of the European Organic Advisors and Group. An ongoing theme of his work is to help producers and growers increase the output of grass and fertility building crops and in decreasing their reliance on imported sources of protein.

Twitter: @farmconsultancy

Christine Watson

Christine is Professor of Agricultural Systems at SRUC and currently leads a team of soil scientists working on soil management and nutrient cycling in organic and conventional farming systems. She holds a guest researcher position in the Department of Crop Production Ecology in the Swedish University of Agricultural Sciences (SLU). Christine was President of the European Society of Agronomy from 2014 to 2016 and will be President of the Association of Applied Biologists in 2017 and 2018.

Ashley Wheeler

Ashley runs Trill Farm Garden, a one hectare market garden, with his partner Kate. They specialise in growing salads to sell to restaurants around Lyme Regis. Ashley is also a founding member of Landworkers' Alliance and has recently been part of setting up LandBase - a new centre for land based skills. Twitter: @trill_farm @LandworkersUK @LandBase_UK



Tim White

Tim has been an organic farmer since the late '80's. Performance recording stock for 25+ years with a view to balance production with inherent health. Developer of 'Exlana' sheep with recent emphasis on parasite resistance and other health traits www.provensheddingsheep.co.uk www.sig.uk.com

Twitter: @provenshedders



Amy, with her partner Dan Britton, set up Plotgate CSA in 2015. They were accepted onto the FEA's Just Growth Programme in Dec 2015 and began to formally establish the CSA. Amy previously worked as a part time grower at Canalside Community Food and established a care farming enterprise

whilst there; The Willows Project. She moved to Somerset at the beginning of 2015, pursuing land, and a long-term lease from the land trust, Plotgate Venture.



Tom Willoughby

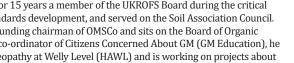
Tom studied Agricultural science at The Royal Agricultural College, then a career in farm management followed which included working at Chatsworth Estates. This then morphed into research and farm management working for the Institute of Animal Physiology and Genetics Research and the Institute of Grassland and Environmental Research including involvement with trials on genomics, carcass quality, ruminant nutrition, nutrient recycling and a study into organic systems. Then Tom, with his wife, changed direction and became a joint tenant on a farm in Powys, then moved to Dorset, and are at present on a dairy farm with arable in Nottinghamshire.

Lawrence Woodward

Lawrence, OBE has been at the forefront of developments in organic agriculture in the UK for over 30 years. He has also played a prominent role in its development in the EU and internationally. He was a co-founder of The Organic Research Centre and its director and currently acts as its Principal Policy Adviser. Amongst many positions he has been President of

IFOAM; was for 15 years a member of the UKROFS Board during the critical period of standards development, and served on the Soil Association Council. He was the founding chairman of OMSCo and sits on the Board of Organic Arable. He is co-ordinator of Citizens Concerned About GM (GM Education), he advises Homeopathy at Welly Level (HAWL) and is working on projects about food quality and health (Whole Organic Plus).

Twitter: @LawWoodward



comment@organicresearchcentre.com



THURSDAY 2nd February 2017

8.45-09.45 WORKSHOPS 4

Small is adaptable (LWA)

There is a belief that in hard economic times, small farmers have the edge over larger ones because they are more flexible, have lower costs and have



less capital invested in specialist systems. Using the findings from the 'A Matter of Scale' study of small farm productivity, Rebecca Laughton will scrutinise the argument, followed by a presentation from Ashley Wheeler of Trill Farm Market Garden, providing an example of a small farm that has adapted to marketing opportunities in a coastal area. Chair: Rachel Harries (Soil Association)

Rebecca Laughton (Tamarisk Farm/LWA): A matter of scale – What do the results of the LWA small farms productivity survey tell us about the adaptability of small farms?

In 2015 the LWA in conjunction with Centre for Agroecology, Water and Resilience, carried out two online surveys to find out about the productivity, financial viability and multifunctional benefits of small (20ha and less) agroecological farms. Seventy small farmers took part, providing a snap shot of a vibrant and diverse sector of the agricultural landscape, characterised by younger than average farmers, a high level of value adding through direct marketing and processing, and minimal reliance on farm subsidies. While some holdings within the sample are flourishing, producing high yields of vegetables, eggs, meat and other products, and generating higher than average levels of paid employment, others are recent start-ups, struggling to carve out a livelihood in a culture of cheap food and expensive land and rural accommodation. This study shows the potential for small, diverse farms to produce high yields of a wide variety of fresh and healthy foods, especially vegetables, as well as education, and satisfying employment, without relying on subsidies, but highlights how the unlevel playing field within which they operate seriously limits their potential. The A Matter of Scale report will be published in February 2017, accompanied by five short films, featuring eight of the most productive holdings. Two of these films, Financial Viability and Barriers to Productivity will be shown during the Fringe Workshops on Wednesday (17.45-18.45)

Ashley Wheeler (Trill Farm): A one hectare livelihood

Ashley runs Trill Farm Garden, a one hectare market garden with his partner Kate in Devon. They have been growing on the site for 7 years and have built up a small but successful business selling salads and other high value crops to restaurants in the area. The garden is part of a number of small enterprises on Trill Farm and much of the infrastructure was put in prior to Ashley and Kate's arrival, meaning that little capital was needed to start the business. Being located close to tourist towns, Trill Farm Garden make half of their income in July, August and September and focus on producing for the summer holidays and half terms. This allows them to take some time off in the winter which is not only a welcome relief to

the long working days of summer, but fits in well with their poorly drained soil which does not grow good winter crops. Ashley and Kate have put up second hand polytunnels to extend their growing season as well as to ensure better quality salad leaves all year, which account for around half of their income.

Diversifying arable systems (ORC)

Diversity at all levels is key for resilient farming and food systems. How to translate this into practice? First results from the DIVERSIFOOD EU



project on forgotten and underutilised species and on intercropping.

Chair: Sophie Alexander (Hemsworth Farm)

Ambrogio Costanzo (ORC): More crops in the farm, more diversity in the field - an update from DIVERSIFOOD

Diversity is the basis for agricultural resilience and sustainability. How can we translate this widely recognised assumption into concrete opportunities for arable farming? In the DIVERSIFOOD EU project we are investigating two complementary strategies. The first is to widen the range of crop species, exploring forgotten and underutilised crops to diversify the farm and the food chain. The second is to increase diversity at a field level, using genetically heterogeneous seeds and mixing crop species. The main challenge is to undertake a learning process to rethink the way we farm. Our preliminary results are intended to stimulate a discussion and highlight priorities to make a more diverse agriculture possible, accessible and successful.

Josiah Meldrum (Hodmedods): Creating new routes to market for underutilised species and varieties

Hodmedod emerged from the Norwich Resilient Food Project, a community initiative led by Transition City Norwich and East Anglia Food Link that ran between 2009 and 2012. The company has built on this work; aiming to create shorter, more transparent supply chains for a range of often overlooked and under-valued crops, build relationships with farmers and help to create more diverse farm systems and diets.

Initially creating a UK market for field peas and fava beans – grown in Britain for centuries but now rarely eaten – Hodmedod began by redirecting small quantities from the large volumes destined for export. As sales increased the company has been able to work directly with farmers and growers to secure supplies of existing crops and develop new ones; including creating new human consumption markets for British-grown legumes.

Hodmedod believes that there are clear agronomic advantages in much greater on-farm diversity, and that with careful planning this increased diversity can bring significant economic benefits. The presentation will outline our current trials, the market gaps we see and the opportunities (and obstacles) these more complex rotation present to organic growers.

Different feeds for improved production (IOTA)

Increasing the productivity and quality of feeds is essential for successful cattle and sheep nutrition; this workshop will focus



on farmers' experience of new techniques.

Chair: William Waterfield (FCG)

Tom Willoughby: Experiences of growing and feeding simple and multi species leys

No abstract received

Neil Rowe (Organic farmer and adviser): Development, production and experiences of feeding sprouted grains to ruminants and non-ruminants

The current situation is on an annual basis 80% of concentrate fed to UK Organic livestock, both ruminant and mono gastric and for large parts of the year 100% of feed delivered to livestock farms is totally reliant on imports from mainly 3rd countries with about 15% of imports grown in the EU. Is this sustainable?

The Sprouted Seeds project (along with Fodder Beet and Small Seed Toasting) is designed to examine practical ways of getting more UK grown concentrate in front of UK livestock.

The areas of research are:

- Mechanizing 24 / 48-hour spouting
- Safe storage and handling
- Changes in nutritional analysis (using a glass rumen)
- How to best feed and inclusion rates
- Encouraging arable farmers to grow feed crops
- Exploring joint venturing and co-operation between Arable and Livestock farms by growing and feeding for a known market.

Potatoes post-copper (OGA)

What is the future of organic potato production without copper? We look at the latest in potato



breeding for blight resistance, plus cultural methods to minimise impact.

Chair: Tony Little (Sustainable Farming Consultancy)

Edith Lammerts van Beuren (Louis Bolk Institute): Transitioning to copper free production

In the Netherlands copper is not allowed as a fungicide, but it is allowed as foliar fertiliser. A national rule is also that the potato vine should be killed/burned when 5% of the foliage is infected by late blight. After a dramatic late blight year in 2016 and much negative press, the Dutch organic sector has decided to transition to a copper free potato production in 2020 and will promote the use of late blight resistant potato cultivars. An integrated plan is designed for a chain wide approach including commitment of breeders, farmers and retailers. The expectation is that in $2020\,$ some ten to twelve resistant cultivars will be available. The first

generation resistant cultivars will have one major gene, but there are already five different resistance genes available for commercial cultivars. The organic breeding programme Bioimpuls (2009-2019) is a collaboration of Louis Bolk Institute, Wageningen University, six commercial breeding companies and ten farmer breeders; it includes a prebreeding programme with ten different sources of late blight resistance, aimed at combining R genes to increase the durability of the resistance. Selection is supported with molecular markers. However, the first cultivars with stacked R genes will only become available in at least five years' time. Therefore, an important task for the transition period is training farmers in resistance management to avoid resistance breakdown and establishment of late blight physios.

Frederik Bonestroo (Duchy Home Farm): **Growing potatoes without copper**

After 20 years of (not only) potato growing, I'm still learning. I've seen enough blight. But there is hope And there are tools available to help avoid or reduce it.

Public benefits of organic farming (ORC)

Organic food production has clear environmental benefits recognised through EU support for organic conversion and maintenance. But the details of these benefits are often poorly understood, by producers,



policy makers and the general public. How can we ensure the achievements of organic producers are properly recognised and supported?

Chair: Joy Greenall (Cow Hall organic farm)

Laurence Smith (ORC): Carbon and nitrogen cycles: linking productivity, pollution and climate change

Organic farming systems aim to work with natural cycles to promote long-term sustainability and system health. This presentation will highlight how this approach can promote system resilience, greenhouse gas mitigation and resource use efficiency within agricultural systems.

Vicki Swales (RSPB): Birds, bugs and bees: how organic farming benefits nature

Nature is in trouble, as highlighted in 'State of Nature 2016'. Between 1970 and 2013, 56% of UK species declined, with 40% showing strong or moderate declines. Many factors have resulted in changes to the UK's wildlife over recent decades but the intensification and specialisation of agriculture have been key drivers. We need to adopt more sustainable and nature friendly farming systems as a matter of urgency. Whilst there may be a range of options to pursue, there is clear evidence that organic farming can have large, positive effects on biodiversity compared to 'conventional' farming. On average, organic farms increase biodiversity (measured as species richness) by about one third. There is also some evidence that soils managed organically release less GHG emissions than chemically fertilised soils. Helping organic and other forms of agro-ecological farming to become more widespread, in order to halt declines in nature and combat climate change, should be a key strand of future Government policy across the UK.

09.45 - 10.00 Comfort break

10.00 - 11.00 WORKSHOPS 5

The challenges of securing organic supplies in a growing market (ORC)

The Session will illustrate with practical examples how cooperation has helped a retailer to find solutions.



Chair: Bruce Pearce (ORC)

Duncan Sinclair (Waitrose): Collaboration to secure feed supplies for the Waitrose Farming Partnership

Over the last 10 years the Waitrose livestock supply chains have been collaborating and working together across a wide range of projects and topics under the banner of the Waitrose Farming Partnership (WFP).

Current activity includes focussing on mapping the total feed requirements for all livestock supply chains including a split between conventional and organic feed ingredients. While Waitrose has a grocery market share of circa 5.5% its share of the organic market is around 25%. The mapping exercise has demonstrated an opportunity to secure more organic feed ingredients from the UK and Europe compared with the current reliance on non-EU sources. The total annual organic feed ingredient requirement is over 50,000 tonnes of which, 51% is currently sourced from the UK or EU.

The WFP has a wealth of experience in managing supply chains and the development of stabilised pricing contracts and are keen to develop the collective sourcing of future organic feed ingredients with interested parties. The most developed of which in the organic sector is the one currently in use for the Organic pig sector developed by Dalehead Foods and we are seeking to use similar methodology to now apply across the wider WFP.

Katharine Dennis (Dalehead): Collaboration to secure feed supplies for organic pigs

Dalehead Foods is an integrated pig production and processing business that is the sole supplier of Organic pork products for Waitrose. The organic pigs for Waitrose are produced by BQP (a division of Dalehead) and the Organic Pig Company who is a long standing supplier to Dalehead and Waitrose.

We use approximately 8000 tonnes of compound organic animal feed per year which we purchase from one feed supplier giving us greater control of the raw material inputs into our diets.

As a pig production business we face several challenges with organic grain sourcing from the UK including yield and quality variation, price, competition from other markets and availability. Our aim however is to source where possible from the UK and we currently source 100% of our organic wheat and barley from the UK.

We have achieved our aim over the last 8 years by working with an organic merchant, Organic Arable. Through this collaboration with Organic Arable and their arable farmers we have developed a pricing mechanism to aim for greater price stability. The intention is of this arrangement is to provide a secure market for UK organic producers and a supply of organic feed grains of known provenance for the organic pig herds.

Silvo-arable agroforestry (Woodland Trust)

The latest practical guidance on setting up a successful silvo-arable agroforestry system.





Stuart Holm (Woodland Trust): Developing agroforestry systems to suit your farm

Looking at planning agroforestry schemes to fit in with your farming business including preparation, species choice, density, protection, on-going maintenance and potential funding streams.

Paul Burgess (Cranfield University): The economics of silvo-arable agroforestry

There can be societal (e.g. economic) benefits of growing trees with arable crops (silvoarable agroforestry) in terms of improved biodiversity and increased carbon storage and shelter. However the widespread uptake of silvoarable agroforestry requires such systems to be financially attractive to individual farmers and growers. Such analysis can be completed with bio-economic tools such as the Yield-SAFE and Farm-SAFE models. This presentation will describe the financial profitability of three systems, studied as part of the SAFE and the AGFORWARD projects, from farmers' perspectives

Sheep breeding and health (ORC)

The session will delve inside existing knowledge and innovative farm practices to facilitate deployment of sustainable parasite control strategies.

Chair: Kevin Harrison (National Sheep Association)

Tim White (Proven Shedding Sheep): Genetic solutions to animal health and welfare

Internal parasite control is the largest health problem in global sheep production systems, resistance to anthelmintics increases with every use and new drugs are slow to be developed. Parasites are constantly evolving and we must adapt our management strategies to counter this. Recent exploration of genetic alternatives has shown great potential and measurable results. In a relatively short time SIG has managed to reduce worm egg output from adult ewes during the periparturient period by 50% using FEC measurements and BLUP analysis. This has translated into one less anthelmintic use in lambs over a season, potential for improvement through genetics is huge.

Spiridoula Athanasiadou (SRUC): Tackling the parasitological challenges arising from organic farming practices

Parasitism is well recognized as a major challenge to the health and welfare of organic livestock. Although previous projects have largely delivered the underpinning scientific research, progress in the implementation of control strategies has been hindered by: i) limitations of research at farm systems level, ii) lack of clear cost-benefit analysis and iii) difficulties in reaching and educate the appropriate stakeholders. The overall objective of

4

this project, which brings together nine academic partners from eight countries, is to generate information and tools that can be readily used by organic farmers to improve animal health and welfare; we aim to achieve this by targeting the interface between research and dissemination. In the UK, organic farmers were given a variety of options to consider for sustainable parasite control on farm. Participating farmers were asked to select one or more of these options, including protein supplementation, drenching on weight loss and bioactive grazing, use it in one group of animals, and then compare the results with another group managed in a "usual" manner. Drenching animals that lost weight did not appear to be affecting total faecal egg counts (FEC), as these were not necessarily the animals with the highest FEC, whereas protein supplementation around parturition and lactation of twin ewes reduced FEC of these animals.

Keeping the soil in organic (OGA)

Can hydroponic systems ever be compatible with organic growing? We explore the issues.



Chair: Roger Hitchings (OGA)

Alan Schofield (OGA): The importance of retaining integrity with soil-based production

Hydroponic or soil less production systems are banned under the EU organic regulation.

In the USA however under the National Organic Program systems of production that we would class as hydroponic have been being certified as organic since 2010. This is a very rapidly growing sector supplying the USA organic market with salads and soft fruit. In 2012 the transatlantic trade deal between the USA and the EU deemed the NOP as equivalent to the EU regulation and therefore technically USA grown produce from these hydroponic systems of production could be exported to the EU and sold as organic under this trade agreement.

Organic consumers place their trust in certification to deliver food that they expect to be grown in the soil. My talk will explore the implications for the future of organic fruit and salad production here in the UK.

Dave Chapman (Long Wind Farm Vermont): Keeping Organic in the Soil

Dave will be appearing in a short film he has made about his experience of mounting an opposition to the present organic certification in the USA that has been certifying soil less organic production systems. The campaign culminated in late October 2016 with a Rally in the Valley, which started at his farm and ended at Cedar Circle Farm, another Vermont Organic grower's holding. The rally attracted over 250 people including 100 organic growers passionate to keep the soil in organic. Speakers on the day included congressman Peter Welsh and Senator Patrick Leahy one of the original sponsors of the organic food production act.

Margi Lennartsson (Garden Organic and CAWR, Coventry University): Organic growing where soil is not an option

Although Garden Organic would always recommend growing directly in the ground where ever possible, we recognize that growing in containers is common practice in in some organic gardens, often to make good use of small spaces and to enjoy an extended growing season. For some growers, especially those

in inner city areas, growing directly in the soil is sometimes not even an option. To ensure that the benefits of organic growing can be enjoyed also in these situations, it is important that we continue to develop and adapt new growing systems, ensuring that they are still in line with the organic principles. Growing in containers should be acceptable practice in some situations, as long as appropriate growing media, size/type of containers and supplementary feeding regimes are being used.

Which way forward for UK agriculture now? (ORC)

Since the referendum there has been a whirlwind of proposals from different organisations on what the priorities for future policy should be. While many share common



perspectives, some have disagreed strongly. We ask the NFU and RSPB to present two different views of the future of UK agriculture.

Chair: Peter Melchett (Soil Association):

Diane Mitchell (NFU): NFU perspective on the future of agricultural/environmental policy

Whatever your view on Brexit, it will certainly bring significant change. But with it, we have the opportunity to create a new domestic agricultural policy framework and one that's bespoke to the UK.

Brexit also presents opportunities for UK farmers and growers to do things in a simpler, more cost effective way. This is not about lowering environmental standards, but rather about establishing policies that are outcome-focused, evidenced based and established on sound science. Without a doubt, any new trade deals will have a big influence on our regulatory framework, but will also have an influence on our domestic agricultural policy.

The NFU has been quite clear that post-Brexit we need a policy framework that, amongst other things, allows farmers to have the best access to markets inside and outside of the EU but also builds on farming's environmental role, allowing all farmers to care for the countryside. We want to see a competitive and progressive farming sector, but it also needs to be profitable. And profitable farm businesses are more likely to invest in the environment. A market price for products below the cost of production is not good for farming or for the environment.

Tom Lancaster (RSPB): Farming for people and nature

Agriculture has been identified as one of the major drivers of biodiversity loss worldwide, and working to halt reverse the decline in farm wildlife has been a priority for RSPB for a number of years. Our vision is for a Sustainable Food and Farming system which is good for people and good for nature. We want to see sustainable systems of farming across the UK that restore biodiversity as well as producing safe, healthy food.

Leaving the European Union will be one of the most defining events for farming and the environment in living memory, and presents an unprecedented range of risks and opportunities. Policy will play a key role in navigating these to find a way forward for UK agriculture that is more sustainable, and better for nature, whilst securing a resilient and productive sector. Working with other organisations, the RSPB has started to develop proposals for policy that achieves this aim, and we intend to play an active role in what needs to be a broad and inclusive debate about the future of the farming and the environment in the UK.



11.00 - 11.30 Tea/coffee break

11.30 - 12.30 Workshops 6

Concluding workshops in each strand to identify key action points - regulatory, financial support, markets, technical/ quality issues and research/innovation - that should feature in future policies for organic food and farming in the UK.

Strand	Business and markets	Arable	Livestock/ grassland	Growers	Policy post-brexit
Chair	Oliver Rubinstein (ORC)	Steven Jacobs (OF&G)	Mark Measures (IOTA)	Tony Little (Sust. Farming Consultancy)	Nic Lampkin (ORC/English Organic Forum)
Rapporteur	Roger Kerr (OF&G)	John Pawsey (Shimpling Park Farms)	ТВС	Alan Schofield (OGA)	Wendy Seel (Vital Veg/Scottish Organic Forum)

12.30 - 13.30 Lunch

13.30 - 15.00 Closing plenary:

Envisioning the way forward

What could the future of organic food and farming in the UK look like and how do we get there? What are the priorities for action in the next 12-24 months? The closing plenary will feature feedback from the different strands (presented by the rapporteurs from the pre-lunch workshops).

Chair: Christopher Stopes (IFOAM EU Group President and EcoS Consultancy)

Nic Lampkin (ORC) Looking back and looking forward: a new vision for organic food and farming in the UK

15.00 - 15.30 Tea/coffee and Close of Conference

Safe journeys and see you next year!

Don't forget to fill in your evaluation form and hand in with your name badge. Thanks!

