THE ORGANIC RESEARCH CENTRE
ELM FARM

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with technical updates from The Organic Advisory Service

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All change please

We are living in a changing world. Organic farmers, along with all farmers across the globe, are operating within a new order of global warming and apparent food shortage.

For some time the “killer question” to organic farmers, researchers and enthusiasts has been: can organic farming feed the world? We now need to turn such interrogation on its head and ask – for how long can “conventional” agriculture – with its greed for oil, water and soil – feed anyone?

Organic agriculture is the only option left in our looming energy crisis, when oil becomes too expensive and scarce for farming use. As the saying goes, the Stone Age didn’t end when we ran out of stones, rather new developments and new directions took over.

In the meantime our new world order is causing particular difficulties for properly engaged UK organic producers. Amongst consumers, feelings of diminishing affluence, post credit crunch, have to be factored in to a market where middle class spare cash may well be in short supply. It will be interesting to see what priority our society attaches to healthy food and environment care under this new economic construct.

And we have a new challenge in growing sections of the media, questioning the sustainability and merit of organic food and farming. Urs Niggli, the director of the research institute FiBL in Switzerland, reports spending much of his time tackling anti-organic writing in German and Swiss publications. He fears much of it is sponsored by life science companies.

Research colleagues report that this year – for the first time – farmers co-operating in our trials programme have become extremely focused on attempting to achieve far greater yield from organic crops. This is being driven by the diminishing differential between organic and conventional prices (alongside yield differentials) and is a trend that needs monitoring to avoid over-intensification of organic production.

We must re-configure our arguments to take account of the point that a "hungry world" may well start to suspend its interest in what many see as the premium niche of organic farming and food. Without economic sustainability now, many small organic producers across the UK will not survive to play their much needed role in the organic future.

Richard Sanders

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Label watch – throwing a spotlight on the information/confusion contained on food labelling

Richard Sanders

A steak supper recently demanded the final touch of a little watercress as garnish. Hot–footing it to my local Waitrose I grabbed a tempting pack – "a hot and peppery leaf grown in gravel beds fed by free-flowing natural springs". It must be good and local, it was adorned with a LEAF Marque logo.

To my amazement though, this LEAF Marque cress was in fact grown in the USA – Florida to be precise. On the back of the pack this fact is acknowledged by Waitrose with the information that its supplier – The Watercress Company – has been using the "preferential weather conditions in Spain and Florida for over ten years to produce crops for when the British watercress is not so abundant".

And there I was thinking that the LEAF Marque was applicable solely to food and products of UK origin only. Mind you I can forgive myself the confusion as the website trail – helpfully added by Waitrose to the watercress pack to educate me about produce, health and farming – is rather coy about just what LEAF means and just where watercress might be coming from.

First stop on the web trail is **www.waitrose.com/yourwatercress**. After navigating three layers of pages, including a clever feature where I could input my watercress batch code – USACW232, I arrived at this statement about its grower –

"Paul is the newest member of the Florida WFI watercress production team but has an extensive knowledge of the fresh produce business as an experienced horticulturalist. From a family run lettuce business in Leicestershire, Paul with his wealth of technical knowledge, production management and sales experience will prove a valuable member of our American watercress production team."

Most of this website is devoted to Hampshire/Dorset watercress production and history – it feels suitably quaint (10 acre cress bed holdings) and a long way from Florida and the more than 400 acres of production unit there.

Waitrose itself – **www.waitrose.com** seems confused about what the LEAF Marque stands for and whether or not it's for product of solely British origin. Try and make up your own mind from this Waitrose statement:

"LEAF is an independent charity dedicated to raising the integrity of British food and they advise farmers and growers on how they can meet the strict standards enabling them to display the LEAF Marque on their products. Several farms that supply Waitrose already demonstrate the LEAF principles and we want to encourage all Britain's farmers to produce food in the most responsible way and thereby offer our customers the ability to make an informed choice about the food they buy."

To be fair, if you visit the LEAF website – **www.leafuk.org** it is upfront about its global ambitions beyond the shores of the UK.

Why, though, have a website name of LEAF UK if clarity is your aim?

"LEAF Marque is an assurance scheme based on LEAF Farming principles. It is independently inspected and certified by third party certification bodies. The standards build on national and global assurance schemes within the agricultural industry and apply to all sectors of farming all over the world. It is the only scheme in existence that covers the whole farm. Farms certified as LEAF Marque can use the LEAF Marque logo on all the produce they sell, direct to the consumer or to retail outlets."

And then to reinforce the appeal of LEAF the site quotes an unknown and unattributed consumer source with the following glowing praise –

"To me, LEAF Marque means that anything I buy with the logo on it has been carefully produced by a farmer who cares about the same things I do: good, wholesome, affordable food, produced with care. I know I am doing the right thing by choosing LEAF Marque produce. I am supporting a charity that supports farmers to farm as well they possibly can. I can visit LEAF Demonstration farms if I want to, and ask the questions I have a right to ask about the food I buy for my family."

Has the ring of a public relations copywriter about it rather than the words of an average shopper, don't you think?

In all this global sourcing of LEAF Marque produce – my watercress included – there is one point that worries me more than most. Even if LEAF Marque standards are sustainable and good, who is policing them thousands of miles away across the Atlantic or even more distant seas?

The producer section of the LEAF website has the answer (perhaps)…where it lists the available certification bodies including one called CMi Plc. It describes itself thus:

"CMi currently certify against the LEAF Marque Standard in: UK, France, Italy, Spain, South Africa and Chile. CMi are also able to offer LEAF Marque inspections in most countries using fly drive auditors from the UK."

"Fly drive auditing" – now there's a career move.

On the shelf

This is the first of an occasional series of Label Watch. I haven't just picked on LEAF watercress as an easy victim. I could just as easily have explored the story behind a bag of Lady Balfour organic potatoes from Israel that my son bought at Sainsbury's. I'll save that for next time.

Meanwhile if you've got a Label Watch story to share or anything else you'd like to comment on please email our new reader's email address –

comment@organicresearchcentre.com

Finding a fix for fertility building

The development of a complex legume based mixture for better fertility building is to become a reality in a new project, led by the Organic Research Centre, Elm Farm. The mixture will be designed to optimise the transfer of nitrogen from the fertility building ley to the subsequent crops in the rotation.

A successful fertility building crop is obviously vital for a profitable rotation. Nitrogen fixation is commonly achieved by mixtures of rye grass and clover, but these simple mixtures can fail, particularly under dry conditions.

Stability of establishment, nitrogen fixation and biomass production are all essential characteristics of the ley phase, providing weed control, fertility building and forage. In addition to these requirements, a ley must be resilient to different soil conditions between and within fields, increasingly variable weather (due to climate change), and pests and disease.

Improvements in fertility building crops can be achieved by creating a complex mixture of complementary species. Species which prefer, for example, either wet or dry conditions, and are deep rooting or shallow rooting can be mixed to improve the use of available resources and reduce the variability in ley performance.

The incorporation of leys by ploughing results in the breakdown of the residues. Decomposition of crop residues is partially the result of the action of microbes in the soil and the soil temperature, but the quality of plant residues also has an influence. Woodier material, with a high carbon-to-nitrogen ratio, breaks down more slowly. The phenolic content (such as tannins and lignin) also affects breakdown rate.

This potential diversity in crop residues can be exploited; slower breakdown could provide steadier nitrogen release to the following crop. Furthermore, a complex mixture in a fertility building crop could address the Achilles heel of organic crop farming – the high levels of leaching of nitrogen following the ploughing-in of the ley.

The new project, which will develop and test the concept of complex legume based mixtures, has been recommended for sponsorship through the Defra Sustainable Arable LINK programme and industry partners*.

Trials will be carried out across the country by ORC and research partners SAC, IBERS- University of Aberystwyth (formally IGER Aberystwyth), Rothamsted Research, TAG, and Duchy College. The project start date is set to be April 2009.

If you are interested in trialling the legume based mixture on your farm please contact **hannah.j@organicresearchcentre.com**

*Abacus Organic Services Ltd, HGCA, Institute of Organic Training and Advice (IOTA), Organic Farmers & Growers Ltd, Progressive Farming Trust Ltd. of Elm Farm, SAC Commercial Ltd, Scottish Organic Producers Association (SOPA) Ltd., Soil Association Ltd., Soil Association Certification Ltd., TAG, Wakelyns Agroforestry, Organic Seed Producers Ltd.

Free conversion advice – back in business

The new OCIS (Organic Conversion Information Service) scheme was officially launched by Defra Food and Farming Minister Lord Rooker at Sheepdrove Organic Farm on 25th March. It opened for business on 31st March. The Organic Research Centre is the delivery body for the new scheme across England, drawing on our deep expertise in conversion and organic systems. (See full story page 10).

Eligibility depends on having a holding or CPH number and management responsibility for both the land and the core farming business. If the holding is less than 10 hectares then the client must demonstrate that it delivers more than 50% of their total income.

If the business has one or two enterprise strands (e.g. beef and sheep) then a half day visit will be allocated. If the business is more complex (e.g. dairy, beef, sheep and arable) a full day visit will be delivered.

The OCIS Helpline number is 0800 980 0048 and the email is **info@ocis.org.uk**

Are biofuels sustainable? Can biodiversity standards help?

Ulrich Schmutz

Biofuel (any fuel from biomass not just liquidised fuel) production is a galloping global business both in developed and developing countries. With the "set targets" (volumetric subsidy) for 2.5% currently and rising to 5% transport fuel from renewable source in the UK by 2010 (renewable transport fuel obligation, RTFO) a "forced market" for biofuel has been created. This compels suppliers to source biofuel at any cost as a pre-condition to selling the remaining 95% of the fuel. This can also be described as a hidden volumetric subsidy and when it was developed as a policy instrument it certainly had good intentions to wean the developed world off its addiction to fossil fuels and the carbon emissions related to them. Therefore, runs the simple logic, biofuels must be an environmentally good thing.

This "forced market" has obvious impacts on food prices as imports of biofuel to the UK/EU replace food crops or other land previously rich in biodiversity. Recent food riots and the doubling of world food commodities prices have lead to a re-thinking of this simple logic. As biodiversity is usually lower on the political agenda than food riots it can be hoped that this re-thinking can also help to find sustainable ways of cultivation and using biofuel without eating into food land and harming agro- or general biodiversity. So the answer should not involve stopping biofuels altogether but the search for a better way of producing them.

A workshop in Germany

In order to extract standards for the sustainable cultivation of biomass an expert workshop was held at Vilm, Germany. This is a unique island with one of the remaining (almost) primary forests in Europe, sitting in the Baltic Sea just off the coast of Germany. Experts came from many relevant countries in this debate: Brazil, Argentina, Southern Africa, Indonesia, Central America and US/EU. The aim of the meeting was to feed expert knowledge into the amendment of the UN's CBD (Convention on Biological Diversity, colloquially called the Rio convention). The next, 9th CBD conference is running in Bonn, Germany 19-30 May 2008 and it is hoped that some of the contributions there can impact on an amended convention. The general idea is to have a full sustainability audit including impacts on biodiversity and a life cycle assessment (LCA) on any biofuel.

If strict criteria are not met in this "certification" process, the fuel from a particular crop in a particular country or region would not be used as part of the renewable fuel obligations. This is not as simple as it may sound as some biofuels are by-products of food production, and other issues like land use change may occur indirectly i.e. biofuel on marginal grazing land and then clearing new land for cattle. Therefore, we have to work hard on the small-print.

The "small print" for a new global policy on biofuels

Specific issues the workshop added (additions in italics) into the draft text for the new convention urge the adoption of decisions which…

"Urges – Parties and other Governments, in consultation with indigenous and local communities, and relevant organizations and stakeholders to:

- as first priority, seeks to reduce energy and transport fuel demand and improve energy efficiency
- develop sound policy frameworks for bioenergy…taking into account LCA's including direct and in-direct land use change and impacts on commodity prices, and looking at environmental impacts on water and soil…
- identify and appropriately manage areas where biodiversity conservation and biofuel production are incompatible
- policies should consider in particular waste products and residuals from agriculture, forestry and habitat management of protected areas, if their extraction does not negatively impact on biodiversity and ecosystem functions

Requests – the Subsidiary Body on Scientific, Technical and Technological Advice: to develop a Programme of Work on Sustainable Biofuels and Biodiversity with elements as indicated in the Annex."

The Annex contains the following text as an indicative list of elements for a suggested work programme on sustainable biofuels and biodiversity:

a) to develop, most urgently, criteria for identifying and mapping areas according to their degree of suitability for biofuel production with regard to compatibility with biodiversity concerns and the aim of minimizing indirect land-use change, including across national borders, by e.g. using a traffic light system being based on ongoing work of initiatives dealing with sustainable production of biofuels, such as the Roundtable on Sustainable Biofuels (RSB)..., including the concept of high conservation value (HCV) areas, biological corridors and buffer zones, which shall serve as guidance for national policies. This set of criteria should also make use of the World Database on Protected Areas (WDPA)…

b) to commission a feasibility study, exploring financial mechanisms such as a biofuel charge to fund incentives for good agricultural/ forestry and biodiversity conservation practice outside biofuel crop production areas, as one measure to limit indirect land-use change and to reduce biodiversity loss;

c) to commission a study on the availability and suitability of degraded and abandoned land for bioenergy production, taking into account the possible positive and negative effects on biodiversity, socioeconomic issues and greenhouse gas balances, and comparing these to those of natural regeneration or reforestation;

d) to develop and promote ecologically and socially sound practices for biofuel cultivation, especially with regard to GMOs, and plant species not previously cultivated on a large scale, also looking at issues of invasiveness and taking account of different scales;

e) to investigate broadening the range of available feedstocks and farming systems (e.g. no till organic farming) for biofuels to enhance agro-biodiversity and climate change resilience;

f) to identify needs for capacity building and research that aim at enhancing and ensuring the sustainability of biofuel production.

A powerful tool

If this text, or parts of it, are adopted by the 9th Conference of Parties on CBD and implemented into national and international law, it will be a very powerful tool to stop unsustainable use of biomass. As always on international levels there are powerful lobby groups and industries, which can dilute the issue, however then national certification bodies or NGO's can push or licence higher standards for biomass production. The Organic Research Centre and its energy, environment and emissions programme is determined to do so! Organic farming with its well established set of standards and certifications systems can play a major role in these discussions.

EASI (Energy, Emissions, Ecology and Agricultural Systems Integration)

The EASI programme is a refocus and concentration on an area of work we have touched on in the past. It is a wide field and some aspects, like biofuels, were pushed by politicians without any holistic integration. The EASI programme as a whole tries to address this lack of integration and considers economic, environmental and social sustainability. In short we are trying to apply the basic principles of organic farming to this area and strongly believe organic farming can make a serious contribution to discussion, dissemination and research in this area.

As the programme unfolds our first priorities are:

- Developing an analytical auditing tool for use at farm or regional level; covering all aspects of energy, emissions, ecology in a holistic way ("FIP" in analogy to HIP Farm/Home Information Pack)
- Collating, evaluating, researching and disseminating information on the relevant science and technology (INFO "Information centre")
- Contributing to create a sympathetic policy and economic framework for on-farm energy generation. (POLICY)

Do get involved

Especially within the first two strands we want to network with farmers and growers, listen to their ideas and experiences with energy savings, and on-farm energy production. We are currently developing an auditing tool showing the progress organic farming has made and how organic can take the lead in this area. This can be helpful in marketing to consumers and supermarkets alike.

In an information centre, farmers having existing experience in on-farm energy production can share their knowledge and learn from colleagues with similar experience. Suppliers can compete and advertise services. Policy makers need expert knowledge and lobbying on a local, regional and national level. If you have any contacts, ideas, suggestions please do not hesitate to contact us.

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Persistent GM rape surprises Swedes

Seeds from some genetically modified crops can endure in soil for at least 10 years. That's the finding of Swedish scientists who examined a field, originally planted with experimental oilseed rape a decade ago, and found transgenic specimens were still growing there.

The survival of the rape was despite intensive efforts in the intervening years to remove seeds. It is thought that no other GM crop has been found to endure so long and critics say it shows that genetically modified organisms will not be contained once released.

Presenting their findings in the journal Biology Letters, the researchers note that after the trial of herbicide-resistant GM rape, the Swedish Board of Agriculture sprayed the field intensively with herbicides that should have killed all the remaining plants.

Following the herbicides, inspectors looked specifically for volunteer plants and killed and removed them. This is much more effort than would usually be deployed on a commercial farmer's field. But even so, 15 plants had sprung up 10 years later carrying the genes that scientists had originally inserted into their experimental rape variety to make them resistant to the herbicide glufosinate.

Non-GM varieties were used in the 10-year-old study as well, and some of these had also survived. *"I wouldn't say that the transgenic varieties are able to survive better,"* says research leader Dr Tina D'Hertefeldt. *"It's just that oilseed rape is a tough plant."*

The UK – along with many other EU partners – has yet to implement legislation on the thorny issue of how fields of genetically modified crops could co-exist with others that farmers – including organic producers – are keen to keep free of transgenic material.

Two years ago, the UK government published a consultation paper (which refers to England only) which included proposals on issues such as minimum distances between fields growing biotech and conventional varieties, compensation for contamination, and the labelling of GM foods.

Along with other stakeholders The Organic Research Centre commented that the proposed framework is too weak, particularly because GM farmers would not be liable for the wider environmental impacts of the crops they grow.

Diversity for Adversity

A meeting of minds on novel cereals

Hannah Jones

Will the composite cross populations of winter wheat developed from the seven year Defra – funded project be in commercial use in 10 years time? 'Yes' was the answer from most of the participants at the Diversity for Adversity event at NIAB, Cambridge on March 31st.

Three years of replicated trial results have confirmed that these novel populations of wheat are providing stable, high yields following self-selection under four different environments. The adaptability of these populations is directly relevant to the challenges facing all farming systems – namely rising oil prices and climatic unpredictability.

Can these advancements in the field result in commercial success? The event brought invited speakers and participants with expertise in plant breeding and legislation together with grain processors from the malting, milling and baking industries, along with scientists and their government sponsors. Discussions during the day were set around a number of short, excellent presentations relating not only to the plant breeding and genetic diversity, but also to broader developments in the social, economic and environment aspects of sustainability.

Legislation was a recurring theme. The wheat populations need a new system to replace the current DUS (Distinctness, Uniformity and Stability) for defining varieties. The audience's enthusiasm with Martin Wolfe's *"…refusal to be depressed by economics…"* alongside the accessible and expert advice of Defra's Plant Varieties Seeds Division has re-invigorated us to take on the challenge.

On a far broader scale, the need to exploit the genetic diversity in our crops was highlighted a number of times. The challenges of climate change and new diseases were used as examples where the evolutionary breeding approach, using populations, can meet the needs of sustainable agriculture, nationally and internationally. And when "conventional" breeders enthuse about that, you know that you're really making an impact.

Acknowledgements:

The ORC crops team would like to thank especially – John Snape (JIC), Geza Kovacs (Agricultural Research Institute of the Hungarian Academy of Sciences), Andrew Whitley (Bread Matters Ltd), Colin Tudge, Toby Hodgkin (Bioversity International), Andy Mitchell (PVSD, Defra) and Bill Angus (Nickerson-Advanta) for their expert input and significant contributions.

A superiority complex

Sarah Clarke

One of the main speakers at the Cambridge Diversity for Adversity event was the Organic Research Centre's Professor Martin Wolfe. He outlined the results of a new 'superiority' analysis – a comprehensive way of looking at the stability of good performance of the composite cross populations and their parent varieties.

The main aim when originally creating the populations was to produce wheat that performs well year after year over a range of different environments. Over the last three years of field trials at four sites, the populations have indeed performed well in terms of yield and quality, but we were unable to quantify their reliability in a satisfactory way. This needed the help of the friendly statisticians who write Genstat, the statistics package that we use to analyse data at ORC.

After some head-scratching, they fell upon the idea of using an elegant method first published in 1988 by Lin and Binns. This generates a measure of superiority, based on both the absolute yields (or other measures) and how stable they are. It means that we can now use data from all 12 experiments (3 years x 4 sites) to work out which of the varieties and populations are both high yielding and reliable. We can also split the experiments into those that are organic and those that are non-organic, to see if the populations differ between the systems.

The first set of data analysed was the yield of the Yield (Y) category populations (those made from high yielding parents) (Figure 1). The results show that the populations are generally performing well by this measure (lower numbers = more superior), especially under conventional conditions. These results are promising, but even more encouraging was that, when other factors such as grain protein and canopy cover were analysed and results combined with those of yield, the yield category composite cross population (YCCP) ranked top in both organic and conventional systems. Put another way, none of the eight parents, grown as pure stands, was as reliably high performing as their population offspring.

Analysis of the rest of the large amount of data is underway, and results are also looking positive for the quality (Q) and yield/quality (YQ) populations. This method will also be useful in the future with the new wheat breeding LINK project – any new data can be integrated with the current data to follow the stability of the populations over a much wider range of years and farms.

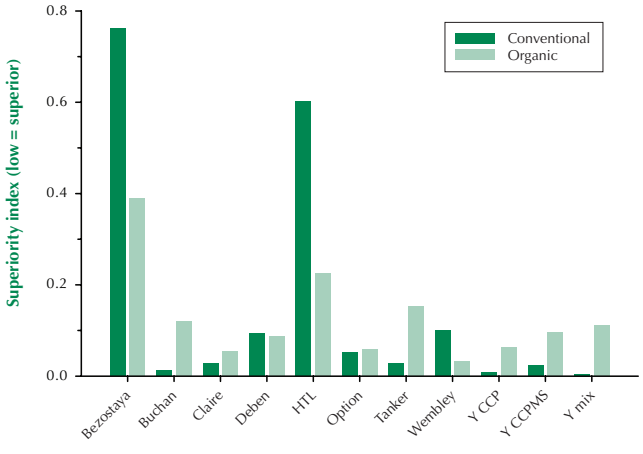

Figure 1. Yield superiority indices (low = superior) in conventional and organic systems of the Yield (Y) category: composite cross populations (CCP) with or without males sterility (MS); parent varieties of the population; and the mixture of the parent varieties (Y mix).

The brave, new – sustainable – world of cereals

Multifunctional agriculture deploying genetically diverse crops will be the future for European cereal production. The focus will be on low input (possibly organic) systems with genetically diverse crops including variety mixtures and composite cross populations.

That is the key conclusion reached by the closing workshop of the COST860 – SUSVAR network, which has involved four years of input from 150 scientists and cereal sector specialists from across 29 (mostly European) countries.

UK participants include, from England, The Organic Research Centre – Elm Farm and from Scotland both SCRI and SAC. Professor Martin Wolfe of ORC has sat on the project's steering group and many members of the ORC crops team have taken part.

Freer regulation

Other leading elements of their vision for sustainable cereal production for 2020 and beyond include reform of the regulatory and commercial environment for seed production and marketing (Setting Seeds Free); more efficient energy production and use; a fresh concentration of breeding and agronomic effort on the nutritional quality and nutritional variety of cereals; much greater levels of participatory research alongside farmers and other cereal sector stakeholders.

Project leader and SUSVAR co-ordinator Hanne Østergård of Risø-DTU (The National Laboratory for Sustainable Energy, Technical University of Denmark) says she has been delighted with the convergence of opinion that has been evident over the four years of debate, discussion and argument.

"We started with a wide spectrum of opinion from commercial breeders through university plant and soil scientists, geneticists and pathologists to organic systems specialists with their associated views on everything from intensive, high input agriculture to the fresh use of ancient wheat ancestors such as emmer and einkorn," says Prof. Østergård.

"Partly this convergence of opinion has been driven by the growing realisation that Europe and the wider world must address the threat of food and resource shortages, but mostly it has been driven by robust debate, the sharing among disciplines of scientific knowledge and the power of positive networking."

As a result, the products of the SUSVAR process include detailed visions on the sustainable cereals of the future with respect to:

- competition between food and bioenergy
- soil management
- economic and legal conditions for variety improvement
- participation of stakeholders
- plant breeding strategies
- food and feed processing improvements
- sustainable land use

Dr Østergård and her SUSVAR colleagues make no claim of delivering magical, instant solutions in the very complex field of sustainable cereal production. But nevertheless they are still optimistic –

"Our time-frame for change may be short, but most of the tools and techniques we need for reform of our cereal growing are available today. We just need to assemble them in novel ways and make sure that regulation, economic and political will are working with sustainable methods, not against them."

An organic Wales

Land area under organic management in Wales increased by 15% in 2007 and now amounts to some 90,000 ha on 800 holdings, that's 6.3% of Welsh agricultural area.

That's the findings of a survey by Organic Centre Wales (OCW) which shows organic farming accounting for about 4-5% of all Welsh production in 2007, ranging from 2% in the case of pigs to more than 10% of Welsh horticulture including potatoes. An estimated 7,000 finished cattle, 110,000 finished lambs, 70 million litres of milk, 830,000 dozen eggs and 4,000 ha of arable crops were produced organically.

However, the report shows that the organic sheep sector has been experiencing price pressures, as well as difficulties finding organic outlets for light and store lambs, reflecting concerns in the industry that the lamb market may have become saturated. Very high organic feed costs are also creating concerns across all sectors.

On the face of it, the prospects for expansion of organic farming in Wales look good – more than 300 farmers have applied to join the new Organic Farming Scheme, meaning that organic farming could grow to 8-10% of Welsh agriculture by the end of 2009. Nic Lampkin, Director of OCW and one of the report's authors, cautions that this growth *"could make it difficult for new producers to find a premium market for some of their products"*.

But Dr Lampkin also notes that demand for organic produce is growing and there is time to plan and *"make best use of policy support and develop strategies to exploit new market opportunities"*.

The survey was carried out by postal and telephone survey in November and December 2007 with support from Farming Connect. Some 477 (67%) registered Welsh organic producers responded.

Taking care of set-aside

Delivering conservation with a carrot and stick

A comprehensive package of measures must be brought forward by the EU to retain fully the environment benefits provided in recent years by set-aside. The package should combine both a compulsory approach through an expansion of cross-compliance allied to a voluntary approach based on an enhanced agro-environment measure.

So says ENCA, the European Network of European Nature Conservation Agencies which was founded at the end of last year and which includes as members Natural England, the Environment Agency and Scottish Natural Heritage.

ENCA says a purely voluntary approach risks being ignored in the most productive cereal growing areas of Europe where wildlife habitat is often extremely fragmented and rare. The current rise in the value of commodity crops and limited national resources for agri-environment schemes serves to heighten ENCA's worries over conservation post set-aside.

Crucially, the group also points out that since current EU cross compliance conditions were established under the premise that set-aside (and its anticipated environment benefits) were to remain in place, it is not unreasonable to extend the rules now under set-aside abolition.

Across Northern Europe

From Austria to Scotland ENCA has surveyed its member bodies to list the environment and wildlife benefits of set-aside in Northern Europe –

- Farmland birds have benefited from rotational set-aside which appears to provide key winter feeding and summer breeding and feeding.
- Mammals benefit from non-rotational set-aside with hares and voles noted as particular winners. As a result some predatory birds have also had their numbers boosted.
- Invertebrate numbers appear higher on set-aside land than in cropped fields. This area needs mores study.
- Rare arable plants also benefit under set-aside. Non-rotational set-aside on thin chalky or acidic soils can develop species rich swards over time.
- Set-aside buffer strips impact positively in minimising nitrate loading, loss of phosphate and soil erosion. The strips also help reduce pesticide drift and have been calculated to have had positive impact on CO2 and N2O emissions from agriculture.

For England, the ENCA report suggest that there is *"a high risk that the Farmland Bird Index will fall significantly if set aside were to be removed and no mitigation measures implemented"*.

It goes on – *"This would threaten our ability to meet the UK Government's Public Service Agreement target (which seeks to reverse the decline in farmland birds by 2020) and several of the targets for UK BAP priority birds."*

Besides ENCA, other conservation groups are also pressing for sensible policy adjustments in this area .The RSPB agrees that the rationale for set-aside as a market management tool is lost following the decoupling of farm supports. But it had anticipated a phased approach to loss of set-aside through the CAP Health Check of this year. With the sudden reduction in the set-aside requirement to 0% for 2008, hopes of a managed approach have been dealt a blow, it says.

"The need to put some sort of environmental mitigation in place, for the loss of this valuable habitat, is clear, for example, many farmers are currently using set-aside to provide nesting and feeding habitats for species such as stone-curlew and linnet, and further afield there have been benefits to red kites in Austria and little bustards in France," says the RSPB.

Wait and see

So far the response to such concerns from Defra has been "wait and see". Defra Secretary of State Hilary Benn has instituted a survey of set-aside and its removal effects. A question was added to the Defra December 2007 Survey of Agriculture, asking farmers how much arable land they proposed to leave un-cropped. Results suggest that the overall percentage decline in un-cropped land compared to 2006-07 will be around 40%. This is somewhat lower than the figure of just over 50% suggested by an earlier telephone survey, though still within the same broad order of magnitude.

A short history of set-aside

Set-aside was first introduced into the Common Agricultural Policy, on a voluntary basis, in 1988 as a supply control mechanism in response to over production of cereals. Set-aside became obligatory following the 1992 MacSharry CAP reform and the policy has undergone numerous revisions since then.

Although introduced to curb production, it soon became apparent that, by effectively re-introducing fallow land into continuous arable rotations, set-aside had the potential to deliver a range of biodiversity, resource protection and other environmental benefits.

In the summer of 2007, in response to high cereal prices and low world stocks, the European Commission announced that the set-aside rate for the 2007/08 cropping year would be 0%. Permanent abolition of set-aside is one of the options being considered in the 'healthcheck' of the Common Agricultural Policy.

Letters… comment…

Misunderstanding methane

Sir,

There is a growing and fundamental misunderstanding in the debate about farming's impact on global warming and climate change which Defra, most environmental campaigners and even some within the organic sector appear to hold. Cattle, they say, have a more negative effect on climate change than the production of crops, which they argue should be encouraged at the expense of cattle.

They are wrong. Methane emissions from cattle, organic or otherwise do not contribute significantly to global warming. Cattle produce 18% of global methane emissions each year, but what almost everyone fails to take into account is that 99% of all methane is broken down into carbon dioxide and water in natural methane sinks. Methane levels have doubled in the last 100 years because we have added on average 1% more methane annually to the environment than these systems can absorb.

Cattle (and sheep) actually account for some 18% of the carbon dioxide coming from the breakdown of 99% of methane emissions and 18% of the 1% of methane which is not broken down. That means they are responsible for a global warming potential of just over 1% of all methane produced each year. While that is the equivalent to the excess methane which is causing the problem, killing large numbers of cattle is not the solution, because turning grassland into arable would add significantly to greenhouse gas emissions and 7% of the methane sink is provided by bacteria in the soil. Alarmingly that process slows and finally stops when ammonium-based nitrogen fertilisers are applied, making organic farming, with its dependence of grazing animals for fertility, the only sustainable option in methane terms.

Richard Young
Kite's Nest Farm, Broadway

Slow and steady wins the race

Incredible but true. Ross/Aviagen have developed a "slow growing" strain of table bird that will achieve a market weight at 49 days. That's 7 days short of a conventional one. This will mean that an "industrial" grower will be able to buy organic chicks and slaughter them 3-4 weeks earlier than smaller growers who stick to the true organic principles.

I am seriously disillusioned with the whole movement.

Whatever next?

Paul Sykes
Clare's Organics, Ashbury

Knowledge transfer?

Sir,

I enjoy your journal but also find that it demonstrates the exact divide which Mark Measures (Bulletin 92, Research into practice – mind the gap) reflects on, between farmers and researchers. For example, as far as I can see from your resume of a fifteen year Swedish trial, scientists 'discovered' nothing that farmers don't already know – weeds vary from field to field and vary according to both weather and cropping – and what did it cost to find that out?

I feel that the underlying message in Mark's piece, not made explicit, is that farmers do what they can according to often imperfect circumstances and above all according to often difficult market conditions. Scientific advice is only accepted when these factors allow.

Also, why do researchers have to dress themselves up as 'respectable scientists' in order to be accepted by…who exactly? I nearly fell off my chair when reading that your baking test was done with white flour using a Chorleywood process. How can such nutritionally poor practices have a part to play in organic research?*

Finally, am I the only person to recoil from the horrible word 'conventional'? What is conventional about synthetic sprays and fertiliser? Surely organic farmers are conventional, natural, customary, normal and proper? It is chemical researchers, politicians and farmers that are unconventional and unnatural. We should be declaring that and not hiding our qualities behind strangely misrepresentative language.

Charles Dowding
Lower Farmhouse, Shepton Montague

** ORC response: We fully realise that baking the composite cross populations in this way is not in line with organic ideals. However, the Chorleywood breadmaking process is a standard scientific method which was used purely as a comparative tool to see how the populations performed. Our new Wheat Breeding LINK project is more commercially focused and we will be working with, amongst others, artisan bakers who will be making bread from the populations using the whole grain and various fermentation times.*

We would love to hear your views. Please write to:

The Organic Research Centre – Elm Farm,
Hamstead Marshall, Nr Newbury, Berkshire RG20 0HR
United Kingdom

Tel: +44 (0)1488 658298 **Fax**: +44 (0)1488 658503
Email: comment@organicresearchcentre.com

The return of free conversion advice – OCIS is back

Roger Hitchings

The new OCIS (Organic Conversion Information Service) scheme was officially launched by Defra Food and Farming Minister Lord Rooker at Sheepdrove Organic Farm on 25th March. It opened for business on 31st March. The ORC is the delivery body for the new scheme across England, drawing on its deep expertise in conversion and organic systems.

Our Organic Advisory Service (OAS) has been in existence since 1984 and in that time it has delivered a range of services including conversion planning, crop walking, events, training, etc. Since 1996 the OAS was the face of OCIS in England. This was an innovative and manifestly useful programme of free on-farm advice designed to assist farmers and growers through the sometimes daunting process of organic conversion.

Clients initially contacted a helpline run by the Soil Association; they received an information pack and learnt that they could have free on-farm visits. Clients who wanted an initial visit were passed on to the OAS who would allocate a suitably qualified and experienced advisor to deliver the visit and provide a written report. A second and longer visit was available to clients provided they had not registered for conversion.

The service was well received by its clients, a fact that was confirmed by three external reviews, two internal reviews and much positive feedback over the years. The number of visits delivered over the 11 years of the original service has exceeded 8000 but all this came to an end in December 2006 when the contract finally expired. There has then been quite a gap to the present time, but OCIS is back. The reasons for the gap include internal changes in Defra, the divesting of the delivery responsibility to Natural England and consideration of changes to the service.

The last review of the service took place in 2006 and despite confirming that the service was delivering to its objectives and was achieving high levels of customer satisfaction, it recommended significant changes. These can be summarised as increasing the amount of written information provided to client and reducing the number of visits from two to one. It was over 7 months since the 'old' service closed before a new tender was announced in August 2007 and it became clear that this new one-visit model had been adopted. A detailed tender bid was submitted to Natural England in Peterborough in early October 2007 and we heard in early November that we had been successful, despite substantial competition.

Initial euphoria was tempered with the realisation that the real work was about to begin.This was because we had bid for both sides of the service and would be delivering the helpline as well as the visits, so there was a range of new systems to put in place. The main part of the preparatory work for the launch in late March was to focus on the production of a detailed, comprehensive and well designed information pack. The pack is intended to replace the initial visit delivered under the previous scheme.

It contains four page inserts on Organic Farming, Certification, Conversion and Sources of Information. Further inserts are available that address the issues of different sectors: Beef & Sheep, Dairy, Pigs and Poultry, Arable, and Horticulture.

Other material to be found in the pack includes a reading list, an outline of the Organic Entry Level Scheme, the criteria for eligibility for a visit, an events list and a market overview, both of which will be regularly updated. The pack is available to all enquirers as a hard copy package or it can be downloaded as a series of pdf files from the Natural England website (**www.naturalengland.org.uk/planning/farming-wildlife/ocis**). The other critical component of the pack is a detailed questionnaire that anyone seeking a free on-farm visit must complete.

Eligibility depends on having a holding or CPH number and management responsibility for both the land and the core farming business. If the holding is less than 10 hectares then the client must demonstrate that it delivers more than 50% of their total income. If the business has one or two enterprise strands (e.g. beef and sheep) then a half day visit will be allocated. If the business is more complex (e.g. dairy, beef, sheep and arable) a full day visit will be delivered.

It is at this point that actual delivery of the service starts as an experienced advisor will contact the client, make an appointment, deliver the visit and provide a comprehensive report.

A key feature of the new scheme is that clients are asked for feedback at every stage of the process. So far it has proved very positive and the clients that have received visits are very satisfied with the services.

The OCIS Helpline number is 0800 980 0048
email – **info@ocis.org.uk**

Organic Arable – new name, new direction

Catherine Phillips

Organic Arable is the new name for the Organic Arable Marketing Group. But what else besides a new name and log can we all expect from this new producer group?

Following a move to independence from Grainfarmers Plc, the name change to Organic Arable signifies a new company and a new mode of operations. Organic Arable plans to build a stronger relationship with its members, providing technical support and marketing advice, rather than focusing purely on the trading transaction. These services are available separately elsewhere but combining information and advice with grain marketing is to be the unique offer from Organic Arable.

Membership brings with it other benefits, including access to information via a website and economies of scale as costs are shared. Looking at the bigger picture, benefits also include better representation of organic arable farming to certification bodies, levy boards and government alongside a greater ability to engage with inter- and intra-sector discussions on some of the big issues of the day, including feed.

Andrew Trump of Organic Arable comments – *"It is often easier for buyers to purchase imported supplies in bulk rather than access UK supplies, which are relatively fragmented. We need to communicate clearly with the buyers what we have and get it into the market in greater bulk to make it more attractive."* Perhaps counter-intuitively in the organic sector, volume rather than provenance is currently more likely to attract a price premium.

Working collaboratively to achieve the best group result is perhaps not always in a farmer's nature. Farmers are competitive, but often with the wrong people. This is true of most of the organic sectors, not just arable farmers: competition is with neighbours, not with some foreign power, often thousands of miles away. But this behaviour has to change if want to achieve a stable organic economy – as a country we cannot rely upon these imports being available forever. However, the fact remains that importers are doing a better job at meeting buyers' requirements than UK farmers. We can't complain about the cut price competition, protest that imports can't be organic, hint that the product is sub-standard and then do nothing about it.

Producers often ask – *"Why should I pay a producer group when I can sell direct and take the profits myself"*?

The answer is that independent producer groups may be able to get a better price by offering high volumes and working with a range of retailers and processors, rather than being tied to a single buyer. Producer groups often also provide access to market information and can work together to reduce the costs of production.

Organic Arable is keen to provide new focus on knowledge transfer. The new organisation launched on 1st May at an event looking at non-inversion tillage methods, used to improve soil structure and organic matter levels. More events are planned, and over the summer, members will be treated to an event on beans. The growing of beans is falling in popularity since cereal prices have increased, despite rising demand for proteins.

For more information on the launch of organic arable, as well as contact details, visit **www.organicinform.org/newsitem.aspx?id=459**

Organic demand goes Dutch

The Netherlands Ambassador to London – Pim Waldeck – has taken the occasion of a brief speech at the recent Organic and Natural Products Show at London's Olympia to outline some new organic market policies from the Dutch Government.

Says Ambassador Waldeck –

"The Netherlands seeks to continue to play a significant role in the trade of organic produce. To support the market opportunities, the Dutch Minister of Agriculture, Nature and Food Quality signed in January 2008 a third covenant with representative organisations of supermarkets, specialist stores, branded goods manufacturers, catering, growers, environmental organisations and banks, for which around 50 million Euro has been allocated.

"The government aims to change policy from "push" to "pull", that is, from stimulating supply to promoting demand as the government believes that market development is primarily the responsibility of the market players themselves whilst the role of the government is to stimulate, provide support and create favourable conditions. This approach is unique in Europe and it is agreed that after 2011 the Covenant's Task Force, comprising the market players, will continue to promote market development independently."

"Besides encouraging consumers to buy organic products, the Dutch government will also play its own part in boosting demand. From 2010 onwards all government procurement must be sustainably sourced with a minimum of 40% organic content and the Ministry of Agriculture vowed to source 75% of food at its canteens from organic suppliers. The Ministry strongly believes that organic producers are capable of delivering a full range of products."

There must be a lesson there somewhere for Defra and the UK Government.

Mr Waldeck also commented on the continuing lack of anything like organic self-sufficiency for the UK. Not that he's crying into his Heineken about that…

The Elm Farm Trail

Access to our Farm Trail at Elm Farm is now much improved. All 12 wooden stiles on the 2.5 mile trail have been replaced by pedestrian gates. This work is part of our objective to provide facilities and amenity for the local community. The trail is open for anyone to use throughout the year, and is now more accessible for those who have difficulty climbing over stiles. Beware, it can still be a bit muddy in places after wet weather, where cattle may have poached the ground.

Other work has seen the fixing of two benches at points on the trail where wildlife and views can be enjoyed. The bench in Donkey Field overlooks a pond which was historically a clay pit – probably up to the middle of the nineteenth century, when there was an active brick kiln in the village of Hamstead Marshall.

These important improvements to the trail were funded by £5,000 Biffaward grant aid. This is an environment fund managed by the Royal Society of Wildlife Trusts which distributes landfill tax credits donated by Biffa Waste Services. Failure to re-

Fencing contractor Ollie Bridges, of 3 Counties Services, fixes a kissing gate in place in Elm Farm's Sheep Field under the watchful eye of Jersey cattle.

Arable systems – moving forward ORC Summer events

There's still time to book a place at The Organic Research Centre, Elm Farm's stimulating summer arable systems events.

Organic arable systems: practical advances, to be held at Sheepdrove Organic Farm, Berkshire on 17th June (10am-4pm).

At Sheepdrove there will be a chance to hear about exciting developments in organic arable research: latest results showing the stability of wheat composite cross populations; and using spring wheat to create better organic bread. Andrew Trump from Organic Arable will give an insight into the current state of the UK organic grain market. A discussion on the merits of on-farm feeding of cereals will follow, with input from Ian Salmon, farm manager at Sheepdrove. In the afternoon there will be a tour of the innovative trials being run on the farm.

Organic developments: today and tomorrow, to be held at Wakelyns Agroforestry, Suffolk on 24th June (10am-4pm).

Peter Melchett will start the day at Wakelyns with a scene-setting talk on organic agriculture and food security. This will be followed by contributions from farmers and researchers on topics including: the use of wheat composite cross populations; adding value to organic wheat production; and embracing the ecological approach. After lunch, there will be an opportunity to tour ORC's field trials as well as Martin Wolfe's inspirational agroforestry systems.

Places are priced at £28 + VAT for farmers (free to Organic Arable members) and £40 + VAT for others. Please book using the form in the News section of **www.organicresearchcentre.com** or by phoning **Pam Tibbatts** on **01488 658298**. Booking deadline – 30th May.

THE ORGANIC RESEARCH CENTRE ELM FARM

Diary date – ORC Producer Conference Tuesday 6th to Wednesday 7th January 2009

ORGANIC *INFORM* @ ELM FARM

Following the success of the last two years (Cirencester 2006 and 2007) – look out for our third Producer Conference in January 2009. This will be a collaborative event, involving organic producers and producer groups, The Organic Research Centre – Elm Farm, Organic Inform and the Organic Advisory Service. Full details available shortly at:
www.organicresearchcentre.com **www.organicinform.org**

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