

Organic Bulletin



December 2005

CAFRE Organic Team changes

Changes to the Greenmount Organic Team have increased the number of organic development advisers.

Charlotte Moore continues to lead the team from Greenmount, with Adrian Saunders, still based on the campus, looking after organic market gardening and arable crops.

David Alexander has moved to the post of Dairy Development Adviser in Magherafelt, retaining the organic dairy adviser role for the whole of Northern Ireland.

On the beef and sheep front, **Michael Doherty** (Newry) and **Mike McCorry** (Ballyclare) are currently being trained to take on the additional responsibility for organic beef and sheep, alongside their conventional beef and sheep roles. Both have considerable experience working with conventional beef and sheep producers.

Jim Purvis and Joan Hamilton continue to assist the team covering organic poultry and commercial organic vegetables respectively.

New contact phone numbers are:



Michael Doherty
028 3025 5907



David Alexander
028 7930 2109



Michael McCorry
028 9332 2399

Into the future with organic beef

Of all the households which claim to buy organic produce, only 10% of them account for 66% of the total money spent in this sector! In other words, a huge 90% of all customers are dabbling but not fully converted. Potential? Definitely!

This was just one of the messages to come out of the Organic Beef Supply Chain Awareness Programme run by DARD this Autumn. During a SWOT (Strengths, Weaknesses, Opportunities and Threats) of the sector the 30 local organic beef producers who attended agreed there was strong growth potential. This was also reflected in Soil Association statistics which identified 300% growth in the UK organic market between 1998 and 2004. So what did we learn from a visit to ABP and Sainsburys in Newry, and in the two follow up sessions with the Institute of Grocery Distribution?

- **Know your costs**
Not just an approximation, and don't forget your time is not free time
- **Supply for the market**
Produce what the market wants – ABP spec is E, U, R, O+, 3, 4L, 250-400 kg
- **Together we stand**
Work together to identify solutions to common problems and address inefficiencies in production methods

The effect of topping frequency on docks in organic grassland

Colm Reavey, Matthew Mc Polin¹, Peter Mercer

Weed Science Section, Applied Plant Science Division, Newforge Lane, Belfast

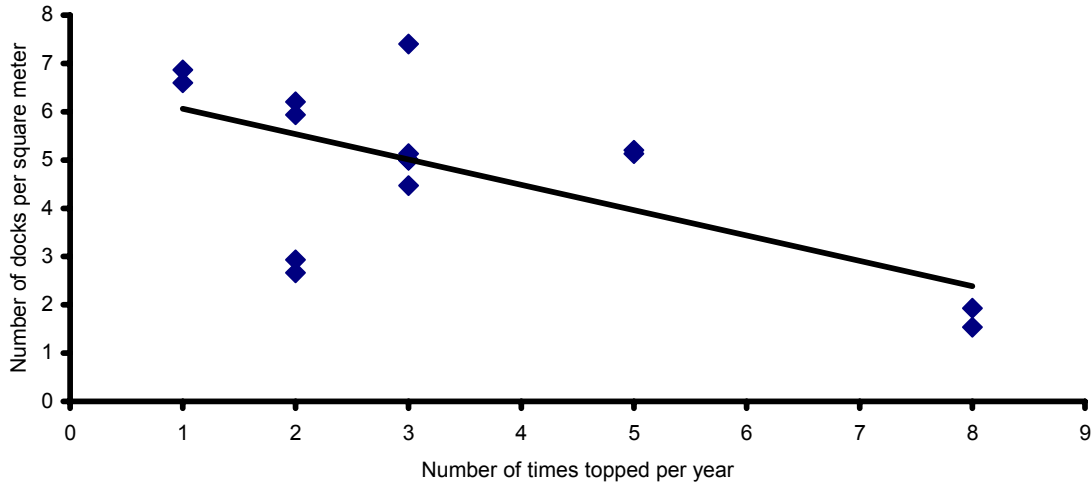
Docks are one of the most persistent weeds in grassland and are difficult to control. In the UK, annual losses due to docks are estimated to be around £30 million, due in part to their less nutritious status when compared with grass. In conventional farming dock management is achieved by the use of herbicides, but obviously, this avenue is not available in organic grassland. In the organic situation the most favoured method would be to top the grazing sward regularly in order to reduce the dock vigour and prevent the plant from seeding.

In 2005, under the Sentinus Scheme of the Nuffield foundation, a small survey was undertaken of organic grassland in N. Ireland by the Weed Sciences Section of the Applied Plant Science Division to examine the effect of the frequency of topping on the numbers and the size of dock plants. Ten farms were selected at random and two fields on each farm were surveyed. In each field a total of 30 half square metre quadrats were thrown at random and the number of dock plants within the quadrat counted.

Ten dock plants were also taken at random throughout the field and analysed in the laboratory for overall size, weight and numbers of leaves and weight, number and length of stems.

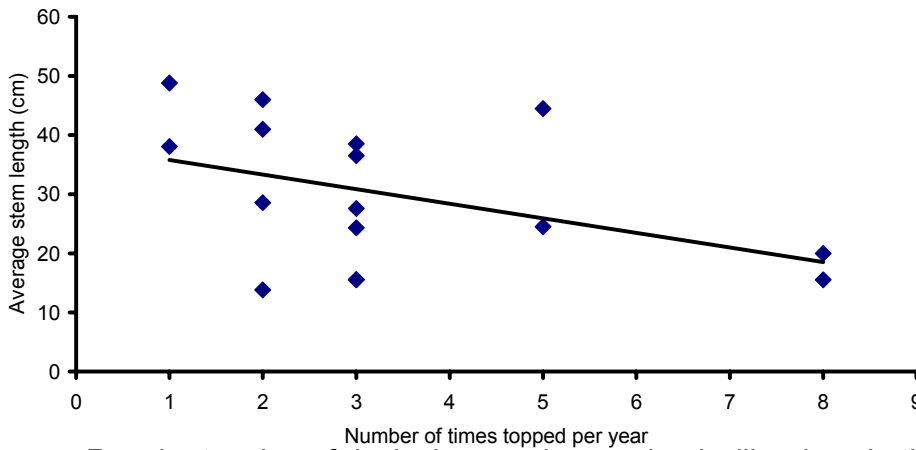
Results indicated, as might have been expected, a highly significant reduction in number of docks with increased frequency of topping (Fig. 1). There were almost three times as many docks with just one cut per year as there were with eight.

Fig. 1. Effect of topping frequency on dock number per square meter



When the stem length of individual dock plants was analysed there was a trend towards shorter stems with increased frequency of topping (Fig. 2) although this was not statistically significant. A similar result was obtained for plant weight. There was little effect on other plant measurements.

Fig. 2. Effect of topping frequency on stem length (cm) of docks



Conclusions: Regular topping of docks in organic grassland will reduce both the number and size of the plants.

¹ Matthew McPolin is a student at Abbey Christian Brothers School, Newry, and his help in the project is gratefully acknowledged.

Growing success

Following on from a Soil Association 'Food Futures – local food for local people' initiative came the 'Community & Schools Food Gardens Project' run by Dungannon & South Tyrone Borough Council in partnership with the Armagh & Dungannon Health Action Zone and South Tyrone Area Partnership.

This project provided funding and equipment for 4 Community groups and schools to grow organic vegetables. Adrian Saunders, Organic Development Adviser at Greenmount Campus had been involved in the Food Futures discussions, and provided workshops for the Dungannon project.

Those involved grew vegetables in deep beds, with the work done mostly by school pupils and the young members of the Community groups.

Many of the children got quite a shock when they found they actually had to start digging old lawn to provide the base for the deep beds. Needless to say, they got stuck in and the beds were built using kits of slot-together sidewalls made from re-cycled plastic sourced on the Internet by Adrian Saunders.

The project was very successful, and earlier this year the project members came together to celebrate the success of the project, and to learn that further Peace II funding had been obtained to extend the project.

More recently a very similar project has started in the Armagh area, again supported by Greenmount, which is providing workshops on organic growing and pest control methods. The coming spring will see more young people out with spades, anticipating bumper crops later in the year, and learning about food production in the process.

Factors influencing the decision to convert to organic production in Northern Ireland

Danielle McKendry
(summarised by Adrian Saunders)

Motives for embracing organic farming have been studied many times but seldom in Northern Ireland. A telephone survey of 65 organic producers sought to identify what influenced local producers to convert to organic production as well as their current perceptions of organic farming.

This article briefly summarises the results.

Attraction to organic farming

Almost half of respondents indicated that financial reasons were a contributing factor to adopting organic farming, one third specified environmental concerns contributed to their decision, and 30% were attracted by the concept of organic production. A small number gave financial reasons as the sole factor for converting to organic production.

Other reasons stated included being approached by representatives from the poultry industry to produce poultry organically, and the impact of the Mid Term Review and decoupling.

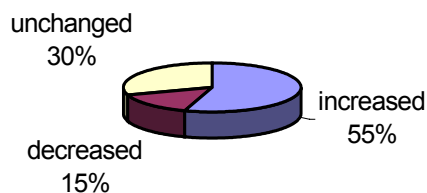
Foreseen benefits of conversion to organic farming

While almost two thirds (63%) of respondents indicated that they thought the farm would improve financially as a result of converting to organic production, the same proportion anticipated environmental improvement. 40% expected the conversion to organic production to result in a reduction of inputs and purchases for the farm.

Concerns about converting to organic production

One fifth of respondents had no concerns about converting to organic production, whilst others were concerned about a variety of issues including maintaining production, rules and regulations, market security, weeds, pests and diseases, and animal health.

Effect of converting to organic production on farm net margin



While 55% of respondents experienced an increase in farm net margin since converting to organic production only 15% noticed a decrease.

Attitude of organic farmers to the perceived benefits of organic production

A high percentage of respondents replied that the environment, animal welfare, and animal health had benefited since converting to organic production.

Over 80%, felt there was a greater sense of personal satisfaction in farming organically compared to farming conventionally. This was strongest in those that had not converted solely for financial reasons, and in those who were environmentally motivated.

Unexpected benefits and problems with organic production

An enhanced social circle, improved economic situation, improved soil structure and soil fertility, and an increase in biodiversity on the farm were unexpected benefits for some.

Whilst over half of respondents did not encounter unexpected problems, pests and weeds in crops and marketing difficulties were unexpected by some.

Do current organic farmers recommend others to convert to organic production?

While 60% of organic producers would recommend others to convert to organic production, one quarter were undecided. Those who had converted for environmental reasons were more likely to recommend others to convert to organic production, compared to those who had converted for solely financial reasons. Some were reluctant to encourage others to convert to organic production as they felt an increase in the number of organic producers could lead to oversupply and reduced prices.

Financial support

92% of respondents were aware of financial support provided by DARD, and 80% of them availed of it. 92% rated it excellent or satisfactory and only a small percentage rated it poorly.

Marketing of organic produce

56% indicated disappointment with marketing arrangements. The remainder were satisfied, although many of these market their own produce.

Future intentions

The majority of organic farmers intend to continue to farm organically. 46% intend to remain with their current level of organic production, 30% are proposing to increase, and 14% are planning new organic enterprises.

A small percentage (5%) intends to return to conventional farming and 6% are undecided. Environmental motivation favoured staying with organic farming.

Purchasing of organic food by producers

The majority (70%) of organic producers buy some organic produce (milk, meat, poultry, fruit and vegetables) for their own consumption. 15% of respondents never buy and 15% always buy organic produce.

41% of those who bought organic produce did so for health and food safety reasons, though 31% specified that cost and availability of organic produce affected their purchasing. Over one fifth bought organic produce to support others in the same position as themselves.

All respondents who never bought any organic produce had not converted for environmental reasons and 70% of respondents who always purchase organic produce did not convert for financial reasons.

Conclusions

The majority of producers had multiple motives for conversion.

In general there was a positive perception of the impacts of organic production on the environment, animal health and welfare, quality of products and personal satisfaction.

These had an impact on attitudes towards the system and plans for the future.

Farm net margin stayed the same or increased on the majority (85%) of farms.

Most organic farmers in Northern Ireland would recommend others to convert to organic production, despite some reservations about financial support, difficulties in marketing organic produce, and a reluctance to encourage oversupply of produce.

Financially motivated producers have found less personal satisfaction with organic farming than environmentally inspired producers. Those who were considering reverting to conventional production had been attracted to organic production by financial incentives.

Lack of contentment with the financial situation is a result of receiving less financial support than some European counterparts, and frustration with the inadequacies of organic marketing in Northern Ireland.

The occasional purchasing of organic produce often arose from a sense of responsibility to the organic sector.

This study was carried out in winter 2004 as an investigative project in support of a BSc (Hons) Agricultural Technology degree. Danielle McKendry was awarded her degree in Summer 2005 and is now working in the organic sector.

On our farm – Rex Humphrey

Rex Humphrey farms 560ha outside Coleraine, with both dairy and beef enterprises supported by home-grown cereals.

Winter is here with a vengeance and our chickens are literally coming home to roost.

I see James and Danielle sitting with calculators in one hand and the Organic Regulations in the other, trying to work out where we are going to house all the cattle and still stay within the correct housing density. When grass was plentiful it seemed a good idea to buy calves and store cattle; getting bedded space and trough spaces is another matter.

We are fortunate that we had the Conversion of Animal Housing Scheme. We made full use of it on both farms and this increased our capacity by over 200. The problem is our stock numbers are up by much more than that, so back to the calculator.

Prices at last are encouraging. ABP are forecasting £2.50 to £2.60 base price before Christmas, and that gives great encouragement to the whole industry. They did give a word of warning though; they need a steady supply of cattle especially in the months January to June.

It's no good everyone finishing cattle July to Christmas and expecting the price to stay stable. Liam McCarthy did warn us that a price differential was likely. Be warned.

He also advised us that the ideal weight requirement was 270 kg to 320 kg. Those people with small breeds must take note. If we don't supply what our customer wants we will pay the penalty.

Milk is also buoyant with price ex-farm now up to 28p/litre with the demand still much greater than the supply. We need more producers; not a rush, but a steady increase of about 2 to 3 million litres each year. If we have that we can grow the market at the same speed without adversely affecting the price.

This will also allow the beef market to grow by supplying more calves, provided that attention is paid to the breeding; but my allocated space is too small to go into that here.

To get milk supply up quickly I would encourage all current producers to increase cow numbers where possible, especially those farms which have a beef enterprise. The milk will probably pay you better, so consider selling your bull calves at 12 or 24 weeks and keeping more dairy cows.

We are increasing our dairy herd to 300, reducing our suckler herd and buying in calves and stores instead. This also creates a market for our suckler neighbours who are better at the job than we are.

Our cereal crop this year was encouraging, well at least the winter crop was. Winter wheat and winter barley both gave good yields (>2 t/acre) of a good clean sample and we got it off at 17% to 19% moisture.

Spring barley was not so good, it was not as clean a crop throughout the growing season and just when it was ready for harvest, the weather broke and the combine sat in the field for 17 days. By this time the crop had gone down and the trash had come up with inevitable results, some fields we got a reasonable yield but some were a disappointing 25 cwt.

I suppose if it was easy everyone would be at it!

Potato varieties for organic production in Northern Ireland

Ethel White and Carol Hall, DARD Applied Plant Science Division,
Plant Testing Station, Crossnacreevy

In Northern Ireland, where the weather is favourable to blight in most years, organic potato production is limited by the difficulty of finding varieties which combine good blight resistance with essential agronomic characters and consumer acceptability.

In the spring 2005 edition of the Organic Bulletin, results were reported from trials conducted at Newforge to assess varietal performance under high blight pressure when no fungicides were applied. In this article results from two years of trials involving seven varieties in the Organic unit at Greenmount in 2002 and 2003 are reported.

The varieties grown under organic management at Greenmount in 2002 and 2003 were Lady Balfour (2003 only), Milagro, Milva (2003 only), Orla, Remarka, Santé, Valor (2002 only). In 2002 plots comprised 4 drills each of 50 tubers, the two middle drills being graded to determine yield and other characteristics. In 2003 the plots comprised 4 drills of 20 tubers.

Canopy growth and development and blight incidences were assessed during the growing season. At harvest defects were removed and typed and the marketable tubers were weighed and counted into 35-45, 45-65 and 65-85 mm grades. Dry matter, raw flesh colour and internal defects – hollow heart, black heart and internal rust – were determined and steaming tests for table quality conducted. The tubers were stored at approximately 5-6 °C for six months following harvest.

Permission was obtained in both 2002 and 2003 to apply copper oxychloride to control blight. In 2002 Milagro had no foliage blight at all while Santé and Remarka were severely infected at haulm removal. Blight was not detected on any of the varieties in 2003 despite conducive weather conditions during early growth.

Marketable yields (45-85 mm) in 2002 (only healthy tubers were retained, rotted tubers were not weighed) varied between 8.0 t/ha in Valor and 20.2 t/ha in Milagro (Table 1). Marketable yields in 2003 were much higher than in 2002, and varied between 24.6 t/ha in Milagro and 33.0 t/ha in Milva.

Defects accounted for between 5 and 23% of total yield in 2002 and between 7 and 25% in 2003, Milagro being worst in both years. More tubers were produced in 2003 than in 2002, but in both years most of the marketable yield comprised 45-65 mm tubers. Orla in both years, Sante in 2002 but not in 2003 and Valor in 2002, produced more 35-45mm than 45-65 mm tubers.

Some quality characteristics of the varieties differed markedly in the two years. Dry matter in Milagro and Orla was lower in 2003 than in 2002 but was very similar in both years in Remarka and Sante (Table 2). Cooked flesh colour was also very similar in Remarka and Sante in both years but Orla and Sante were both less yellow in 2003 than in 2002. Valor in 2002 and Lady Balfour in 2003, both with pale cream cooked flesh colour, were the only varieties not to be yellow.

All the varieties had firm flesh and little disintegration in 2002 but in 2003 three of the six varieties, Orla, Remarka and Sante, were mealy and had some disintegration. Fibres were found only in Orla in 2002 but Milagro, Milva and Remarka had fibres in 2003. None of the varieties had any internal defects in either year. Milagro had some off-flavours in both years which were clearly bitter in 2002 but not specific in 2003. Orla was the only other variety to have slight off-flavours and then only in 2003.

The varieties stored extremely well, the tubers having minimal sprout development and being firm and bright with little disease in late March or early April both years. This was unexpected because of the limited extent to which blight could be controlled and because the trials were lifted at a relatively immature stage. Although few of the varieties had been in conventional variety trials in recent years, it also seemed that they stored better than would have been expected in such trials. This good storability is being investigated further.

Conclusions

Blight incidences were low and yields were acceptable in both years of trial. However defects reached substantial amounts in some varieties. Seasonal effects on quality were as large as variety differences. Excellent storability of the varieties was observed in both years.

Seed quality and seasonal weather and soil all play a part in determining yield and quality of varieties in trials and on farm irrespective of what management is followed.

Resistance to blight is of critical importance in organic systems and so clearly must be one of the primary criteria in selecting varieties to produce. Information on other features obtained in variety trials under conventional systems should also be scrutinized to match variety to the intended market and to tailor management decisions to the strengths and weaknesses of the individual variety.

Further information on all varieties is available from the potato variety team at the Plant Testing Station, Crossnacreevy, Belfast (Tel.: 028 9054 8000).

Table 1 - Yield and defects of potato varieties under organic management

	2002				2003			
	Yield (t/ha)			Defects (% total yield)	Yield (t/ha)			Defects (% total yield)
	Total	45-85 mm	45-65 mm		Total	45-85 mm	45-65 mm	
Lady Balfour	Not in trials				42.0	30.7	27.7	14.4
Milagro	30.1	20.2	15.4	23.0	35.4	24.6	19.6	24.7
Milva	Not in trials				45.5	33.0	31.3	11.2
Orla	27.0	16.1	15.9	5.7	43.9	29.9	26.9	10.8
Remarka	20.1	12.1	11.8	9.1	35.8	24.9	18.4	24.2
Sante	26.1	15.7	15.7	5.4	40.6	31.7	27.4	6.8
Valor	18.0	8.0	8.0	5.2	Not in trials			

Table 2 - Dry matter and cooked flesh colour of potato varieties under organic management

	2002		2003	
	Dry matter (%)	Cooked flesh colour (1-6, where 1 = white, 6 = yellow)	Dry matter (%)	Cooked flesh colour (1-6, where 1 = white, 6 = yellow)
Lady Balfour	Not in trials		18.2	1.6
Milagro	21.3	4.8	19.7	3.6
Milva	Not in trials		20.0	5.6
Orla	22.1	5.4	19.3	4.2
Remarka	23.0	5.2	22.0	5.0
Sante	21.8	4.8	21.9	4.8
Valor	19.6	2.0	Not in trials	

Organic Action Plan

The seventh meeting of the Organic Action Plan Group for Northern Ireland (OAPGNI) took place on 23 November 2005. The group is in the process of finalising an action plan for the coming year. It continues to pursue recommendations to DARD in relation to the Organic Farming Scheme, the Organic Farming (Conversion of Animal Housing) Scheme, and the organic horticulture sector.

The group's next meeting will be on 19 January 2006. Agendas and minutes from OAPGNI meetings can be found at www.dardni.gov.uk/core/dard0220.htm



OAPGNI members and DARD observers at Clondeboye on 23rd November.

L-R: Stuart Beeson (Secretary, DARD), Christopher Stopes (Chairman), John McCormick (Ulster Organic Vegetable Producers), Tom McKeown (Moy Park), Paul Stewart (Northern Ireland Independent Retail Trade Association), Eileen Thompson (Farmlay Eggs), David Laughlin (Ulster Farmers Union), Linda Meldrum (DARD), David Neill (DARD), Charlotte Moore (CAFRE, DARD), Rex Humphrey (ACOS).

OAPGNI members not included in photograph: Richard Jacobs (Organic Farmers and Growers), Liam McCarthy (Anglo Beef Processors), Roy McCracken (Emerald Organic), Raymond Pollock (North West Organic), James Twine (Soil Association).

Agri-food industry offered graduate support

Managers in the Northern Ireland Food & Drinks sector have a unique opportunity to access support from a skilled graduate to drive forward with a key project associated with the future development of their business.

Enthusiastic graduates on the PremièrePLUS+ Food & Drink Programme are available to NI Agri-food companies to support them with Business Improvement Projects in any area of company/business development that has measurable outcomes. This can include projects relating to sales/marketing, finance, promotion, quality, human resources and technology/ICT.

Based on the award-winning Première Graduate Development Programme, the PremièrePLUS+ Food & Drink programme is aimed at developing marketing, selling and new product development skills for the Agri-food industry. It was pioneered in response to one of the key recommendations of the 'Fit For Market' strategy being driven through the Food Strategy Implementation Partnership.

The PremièrePLUS+ programme was developed in response to one of the key recommendations of the Fit For Market Strategy being implemented by DARD and InvestNI under the guidance of the Food Strategy Implementation Partnership.

Dan Flinter Chairman of the Food Strategy Implementation Partnership said 'Managers in the food industry have a unique opportunity to access a skilled graduate to address a key development need

in their business. The PremièrePLUS+ programme supports managers and graduates working together to improve the competitiveness of their business in the food and drinks sector.'

PremièrePLUS+ is a joint venture between the College of Agriculture, Food and Rural Enterprise (CAFRE) at Loughry Campus and Parity, one of the UK's leading management development companies.

Graduates are available to undertake a 17 week project in the company from early February 2006. Companies who are interested should call Janine Moore at Parity on 028 9024 0780.

For more information visit www.premiereprogramme.com/plus

Scottish study tour

The annual organic study tour, organised by David Alexander, was as popular as ever this year. The group visited 2 beef and sheep and 2 organic dairy farms in Dumfries in mid October and joined up with Soil Association Scotland for part of the tour.



'Snippets'

Organic Farming Scheme - The Organic Farming Scheme remains open for applications with 105 farmers having benefited from the scheme. Total grant assistance paid since the scheme's introduction in 1999 is £1,380,000.

Organic fertiliser - The I.C.O.N. company run by Dungannon organic producer Turlough Breslan is currently installing a pelleting machine in order to expand their range of certified organic fertilisers.

They are certified by several organic certification bodies, and will be available from early 2006 in quantities from 10kg to 1 tonne containers.

For a brochure ring Turlough Breslan on 028 3885 1055

Flatulence tax - The New Zealand government has suggested a tax on the gas emitted by cattle and sheep as part of its proposals to meet commitments under the Kyoto Protocol on global warming.

The proposed tax is expected to raise £3.46 m from next year.

Scientists estimate that methane gas from farm animals is responsible for more than half of New Zealand's greenhouse gases.

Flatulence from ruminants is a serious environmental problem, accounting worldwide for about 15% of methane emissions - one of the most potent of greenhouse gases.

Organic versus conventional comparison - A 22 year long field study comparing organic and conventional farming in the USA is summarised in an article from the Organic Consumers Association www.organicconsumers.org/organic/norm071805.cfm

During the first 5 years organic farming built up higher levels of soil mass and biodiversity, and this led to yields equal to or greater than conventional crops.

Conventional crops also leached pesticides into water at levels exceeding the Environmental Protection Agency's safety limits.

Over the 22 years, organic crops used 30% less fossil energy inputs than conventional crops.

Disease resistant brassicas - Recent breeding programmes are starting to release varieties of brassicas with high levels of tolerance to clubroot. They are tolerant rather than resistant, which means that they may still become infected with clubroot, but it will have only a limited effect on their growth.

Two varieties released so far are:

- Trixie - a tolerant calabrese
- Kilaxi - a tolerant cabbage

If you grow these tolerant varieties, rotational practices should still follow the normal long rotation pattern to avoid build-up of clubroot in the soil.

HDRA gets new name - The Henry Doubleday Research Association (HDRA), the UK's Organic Gardening Society, has adopted a new working name: 'Garden Organic'. This is also reflected in its revamped website www.organicgardening.org.uk

Contributions from:

Stuart Beeson, Donna Course, Carol Hall, Rex Humphrey, Danielle McKendry, Matthew McPolin, Peter Mercer, Charlotte Moore, Janine Moore, Colm Reavey, Adrian Saunders, Ethel White, David Wright.

Compiled by Adrian Saunders