

European farmers plough ahead

Despite the chronic failure of EU policy makers to endorse the concept of pesticide use reduction, a silent revolution in low pesticide farming is creeping across the continent. Elliott Cannell, of PAN Europe examines a new report showcasing six of the region's most successful pesticide use reduction initiatives and finds Europe's farmers stealing a march on its politicians.

One of the concepts most consistently overlooked within the EU agricultural debate is that of 'pesticide use reduction'. Instead, as a result of lobbying from the agrochemicals industry, discussion tends to focus on 'risk reduction'. To make matters worse, there is a widespread misconception that the pesticides remaining on the EU market are harmless, and that the biggest threat is from illegal imports of unauthorised agrochemicals.

The chronic failure of EU political decision makers to address Europe's escalating reliance on agrochemicals underlies a long period of policy stagnation within which excessive pesticide consumption has continued largely unabated. Meanwhile, the negative impacts of intensive pesticide use have become ever more evident: 40% of EU fruit and vegetables now contain pesticide residues – with one in 30 items exceeding EC maximum residue levels (MRLs), contamination of many water resources exceeds European legal limits, biodiversity is in decline, and rural residents continue to suffer adverse health impacts through pesticide exposure.

Despite the failure of politicians in Brussels, a growing number of European farmers' associations, food co-operatives, NGOs, national governments and food retailers are pushing ahead with low pesticide farming strategies. Targets for pesticide use reduction have been adopted in Denmark, Sweden, Netherlands, France and Germany. Farmers in Belgium and Italy have come together to reduce pesticide usage and to market food produce grown under reduced pesticide protocols. Major retailers in the UK and Switzerland are now sourcing food produce endorsed by low pesticide labels, while

NGOs across Europe continue to raise public awareness of pesticide contamination and engage consumers in demanding higher food standards.

In September 2007, PAN Europe sought to document this growing movement in a report which showcases six of Europe's most successful low pesticide farming programmes. Together these initiatives provide irrefutable evidence that pesticide use reduction is not only possible, but is actually happening – and within the context of today's modern free market economy. The report spotlights the fallacy of industry claims that decreased pesticide use will jeopardise EU agricultural productivity. *Pesticide Use Reduction Strategies in Europe: six case studies* provides much needed information to those intent on strengthening sustainable agriculture, and for EU policy makers, and those responsible for implementing National Action Plans under the forthcoming EU Thematic Strategy for the Sustainable Use of Pesticides.

Belgium – fruit growers' initiative

Founded in 1988, GAWI (Groupement d'Arboriculteurs pratiquant en Wallonie les techniques Intégrées) is a not-for-profit fruit farmers' association based in French-speaking Belgium whose primary aim is to support and promote IPM fruit production. In recent years the organisation has grown to include 43 producers with a combined production area of roughly two thirds of the total fruit area in Wallonie.

To provide guidance for its members, GAWI has developed its own standards for Integrated Production based on guidelines of the International Organisation for Biological

Brussels still missing the target

On 23 October 2007, Members of the European Parliament missed yet another opportunity to establish concrete targets for pesticide use reduction. Voting on far reaching proposals for the reform of EU pesticides legislation, members endorsed several measures aimed at decreasing the risks posed by pesticides. They nonetheless backed out of setting mandatory targets for pesticide use reduction despite compelling evidence of excessive pesticide use within the European agricultural sector. NGO demands for a 50% reduction target, together with a compromise proposal from the Socialists for a 20% reduction target were both rejected by the largely Conservative majority.

and Integrated Control of Noxious Animals and Plants (IOBC). Pesticide use reduction is central to its strategy. All pesticides are classified as either 'green' – which farmers may spray when use is justified, 'yellow' – which may only be used when no 'green' product is suitable, and 'orange' – which may only be used after necessity has been established and permission granted. Pesticides on the 'red' list are absolutely prohibited.

GAWI works to support fruit farmers operating under its protocols by providing an ongoing training programme consisting of two or three farmer group meetings each year as well as four or five field trips. In addition it operates a warning service for major pests and diseases, and GAWI experts are always available to give advice by phone. The organisation further supports its members by marketing their produce under the 'Fruitnet' label (see p5). At present Fruitnet markets up to 12% of Belgian pome fruit, mostly via the Belgium retail chain Delhaize-Le-Lion which sells Fruitnet produce in 120 national outlets.

Denmark – use reduced by 50%

In 1986 Danish politicians, alarmed by the growing presence of pesticide contaminants in their national food and water resources, instigated the country's first 'Pesticide Action Plan' aimed at achieving a 50% reduction in pesticide use. The Government set concrete targets for pesticide use reduction, introduced forward-thinking market incentives to encourage low pesticide farming, and supported an independent advisory service to work with farmers in using pesticides more effectively. Since then Denmark has adopted a second and third Pesticide Action Plan, each with tough targets as well as measures designed to support agricultural producers.

Twenty years on the results are remarkable: Denmark's farmers now use 50% less pesticide than they did 20 years ago; Danish vegetables are six times less contaminated than their equivalent imports; water quality has doubled; and all without significant economic impact to farmers. The Danes attribute their success to a combination of instruments

Objectives of the Danish Pesticide Action Plans

1986 to 1997 – The first Pesticide Action Plan set a target of 25% reduction in total pesticide consumption by 1992, and a 50% reduction by 1997. It also contained a raft of measures to promote the replacement of Denmark's most hazardous pesticides.

1997 to 2003 – The second Pesticide Action Plan introduced a treatment frequency index* to better quantify Danish pesticide use and set a maximum spraying target of 2.0 by 2003. It also established 20,000 ha of pesticide-free zones alongside Denmark's watercourses and lakes.

2003 to 2009 – The third Pesticide Action Plan aims to lower the treatment frequency to below 1.7 by 2009, to promote pesticide-free cultivation, and to increase protection of Denmark's water resources by establishing a further 25,000 ha of pesticide-free zones.

*the treatment frequency index indicates the number of times a crop is sprayed in a season



In a field of their own: Denmark's independent training and advisory system has helped farmers reduce pesticide use by 50%

Photo: PAN Europe

such as clear targets and indicators, a parallel revision programme of all substances in the Danish market, buffer zones for the protection of water resources, and mandatory record keeping. Farmers are supported by a comprehensive independent training system, and the majority of advisory activities are carried out under the auspices of farmers' organisations.

Switzerland – IP protocols

Having witnessed an impressive 40% reduction in sales of pesticides over the past 15 years, Switzerland's efforts have been among the most successful in Europe. Also impressive is the development of low pesticide Integrated Production (IP) farming protocols which now cover all major crops including cereals, rapeseed, potatoes and fruits, as well as meat, poultry and milk.

These achievements derive from two key factors. Firstly, Swiss agricultural subsidies – which amount to €1.6 billion in direct payments each year – require farmers to adopt minimum ecological standards. These include limiting the use of pre-emergence pesticides, using pest warning services and prognosis models when taking pest management decisions, and testing spraying equipment at least once every four years. To add to these baseline ecological commitments, Swiss farmers enjoy extra subsidies if they demonstrate further substantial decreases in pesticide use. In 2004, the Swiss state made further payments to 11,000 farms growing cereals without the use of insecticides, fungicides, plant growth regulators or chemical strengtheners. 13,000 farms received similar payments for growing animal fodder under

the same conditions, as did 2,000 farms growing rape seed.

In addition to following the low pesticide requirements tied to state subsidies, 18,000 Swiss farmers have chosen to join IP Suisse, a farmers' association which works to support its members in adopting strict Integrated Production protocols. In recent years IP Suisse certified farms have generated 110,000 tonnes of wheat, 30,000 tonnes of potatoes, and 2,000 tonnes of rapeseed. Some 3,000 of Switzerland's 4,000 professional fruit producers grow certified IP Suisse fruit and are collectively responsible for 92% of Swiss apples, 85% of strawberries, and 70% of raspberries.

IP Suisse plays a substantial role in marketing produce grown by its members, selling their food under its recognised logo. All major retailers and food processors in Switzerland sell IP Suisse products including Migros – Switzerland's largest supermarket chain.

Netherlands – from government to grocery

Under growing pressure to curb the negative environmental impacts of intensive farming, and in particular those affecting its national water resources, the Dutch Government established an 'Agreement on Crop Protection'. Launched in 2003, this multi-stakeholder initiative is supported by an annual budget of €14 million and aims to promote the implementation of Integrated Crop Management (ICM) across the Dutch agricultural sector. Measures include the creation of an experimental advisory service for the implementation of low pesticide farming methods, the development of Environmental Impact Cards to provide guidance for farmers, and the creation of an Environmental Indicator now used to monitor progress at a national level.

In addition, the initiative sought to develop 'Best Practice' protocols in ICM for all major crops. These standards go well beyond 'Good Agricultural Practice' and the chemical control of weeds and pests is seen as a last resort.

In 2005 the Dutch supermarket 'Laurus' endorsed the adoption of Best Practice ICM protocols by offering farmers a premium for produce grown according to the scheme. Initially selling Best Practice apples, pears, strawberries, parsley, cabbage, and lettuces the supermarket has expanded its operation to include other fruits and vegetables and glasshouse produce such as tomatoes, cucumbers and peppers. The next phase is likely to be the establishment of a consumer certification for these products.

Italy – pesticide-free food

Founded over 25 years ago 'Legambiente' is Italy's largest environmental NGO with 20 regional committees and more than 1,000 regional groups. In 2001 the organisation launched a campaign aimed at supporting farmers in producing fruit and vegetables free



On the level: Dutch farmers work to implement best practices in ICM Photo: PAN Europe

of pesticide residues. Over 230 farms, including members of Italy's largest food cooperatives, now participate in the project and are given guidance and support in implementing low pesticide agricultural protocols. Food products grown under the scheme include potatoes, peaches, apricots, onions, kiwi fruits, tomatoes, apples, carrots, lettuces and figs. Those certified as pesticide free are awarded the 'LAIQ' (Legambiente per l'Agricoltura Italiana di Qualità) logo.

Central strategies employed by producers operating under the scheme are the implementation of Integrated Pest Management, the use of pesticides with low persistence, and the extension of the pre-harvest period (the time between the final spray and the harvest). In order to guarantee standards on zero pesticide, Legambiente carries out random pesticide analysis of produce from 5-10% of farms each year. These checks take place without prior notification, during the harvest season and without washing the samples. Legambiente also keeps a constant check on farmers' spray records and plant protection measures. In the few cases where residues are found to be present at low levels, the food is withdrawn and advisors selected to help farmers improve their performance in subsequent years. Results of recent random testing show that Legambiente has almost completely achieved its goal of supporting pesticide-free produce.

UK – retailer leads the way

The UK Co-operative Group is one of the largest consumer co-operatives in the world and encompasses a diverse portfolio of businesses including finance, funerals, food retail and farming. Its food retail operations generate annual sales of €4.4 billion. 'Farmcare', the Co-op's agricultural division is the largest farmer in Britain. It manages 10,000 ha of Co-op owned land and 20,000 ha of farm land owned by other landowners.

In 1999 the Co-op Group instigated an international Code of Practice on pesticide use. This centred on the creation of a 'prohibited list' of 23 pesticides. These substances were henceforth excluded from use on farms managed by Farmcare, and other

McBreakthrough

In Switzerland, Integrated Production agricultural systems are now so popular with consumers that even McDonald's sources ingredients from Swiss IP farmers. All of McDonald's buns are baked using IP Suisse certified wheat. In addition, 63% of its meat and 30% of its rapeseed oil are from IP Suisse farms.

farms worldwide supplying all the Co-op's retail outlets with food produce. The impact of this was twofold. Firstly it raised standards on Co-op managed farms – given that seven substances banned under the scheme are authorised for use in the UK. Furthermore, by demanding that all food suppliers to its retail operations adopt the same standards, the Co-op used its purchasing power to raise standards far beyond the boundaries of its own agricultural operations.

The Co-op's prohibited list was accompanied by a 'restricted list' of 32 pesticides which farmers may only use with written permission. Again this applies to all Co-op food retail suppliers, as well as UK farms operated under Farmcare. The Co-op recently reported receiving 3-4 monthly requests to use substances on its restricted list: a relatively low number given that several of the substances included are widely used within the EU and UK – especially the fungicides, such as carbendazim, chlorothalonil, mancozeb, metiram and thiram.

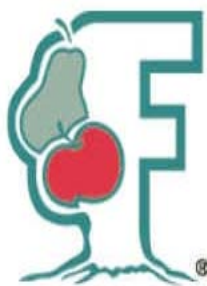
In addition to policing the use of pesticides, the Co-op works to encourage and support farmers to reduce pesticide use by providing guidance on Integrated Farm Management (IFM). On designated sites within its Farmcare agricultural portfolio, it conducts research into low pesticide farming recently producing a ten year assessment which found that the Co-op's IFM methods are capable of halving pesticide use while maintaining profitability. Experience gained in developing crop-specific IFM protocols has since been used to create farmer advisory sheets for carrots, potatoes, cauliflowers, mushrooms, avocados and pineapples. These prioritise the adoption of biological, and mechanical crop protection strategies ahead of synthetic chemical control.

Conclusions

Examined individually, each of these six case studies provides a timely demonstration that pesticide use reduction is possible, and that low pesticide agriculture can compete within the parameters of the modern free market economy. Assessed together their diversity tells us more about the nature of initiatives capable of delivering reductions in agrochemical inputs.

Despite their considerable differences, each of the above case studies contains a common element: farmers receive independent advice, untainted by vested interests, in order to support informed decision-making on pest management. This role may be fulfilled by a government authority, an NGO, a retailer, or by a farmers' association. In none of these examples do agricultural producers receive advice from those employed by the pesticides industry. Pesticides manufacturers undoubtedly know a great deal about their products. But their salesmen are unlikely to advise farmers to use fewer pesticides: wisdom not lost on the architects of the above strategies.

The diversity of these initiatives provides compelling evidence that multiple



(1) FruitNet, Belgium



(2) LAIQ, Italy



(3) IP Suisse, Switzerland

Signs of quality: three logos used to promote European food produce grown under low pesticide protocols: (1) The FruitNet logo was created by GAWI and is used to certify some 12% of pome fruit sold in Belgium. (2) The Legambiente LAIQ symbol is used to denote pesticide free fruit and vegetables on sale in Italy. (3) The IP Suisse logo denotes meat, poultry, milk, cereals, rapeseed, potatoes and fruit grown on Switzerland's 18,000 IP Suisse certified farms.

stakeholders within the food chain are capable of driving reform. No single gatekeeper has a monopoly on positive change: but rather many agents have the potential to take the initiative. In Belgium for example, a low pesticide fruit production programme was conceived, designed and implemented by farmers who later won the support of a national food retailer. Their achievements provide a clear demonstration that a well organised and committed group of producers can make change happen, and represents an ambitious standard that farmers throughout Europe might strive towards.

In the UK a food retailer instigated a programme which helped transform farming methods. While the pesticide reduction goals set out by the Co-op are perhaps less ambitious than in some of the other case studies, the example demonstrates the power of decisions taken in the board room. The Co-op's decision to create lists of prohibited and restricted pesticides helped to change not only the Co-op controlled farms, but all those farms worldwide that supply Co-op retail outlets, thus having arguably the widest positive impact in terms of agricultural reform.

In Italy an NGO bridged the gap between food producers and retailers by establishing a programme capable of generating pesticide-free produce. This demonstrates firstly that non-commercial stakeholders can effect pos-

itive change. Secondly, it shows that pesticide use does not exclude the possibility of growing pesticide-free produce, and that even highly ambitious goals are achievable where participants show adequate conviction.

In Denmark, Netherlands, and Switzerland, decision-makers operating within national governments worked to instigate agricultural reform. It is here that we see perhaps the most substantial results: whole countries where pesticide use has been reduced by 40-50% on a national level. These examples demonstrate the power of the state. By accepting the challenge of sponsoring change national policy-makers have the potential to reshape the behaviour of whole nations.

In 2008/09 the European Council of Ministers, together with the European Parliament, and the Commission will complete the process of redrafting EU pesticides legislation. This represents the best chance in a generation for those at the heart of Europe to help end the continent's excessive reliance on pesticides. Let us hope the six case studies detailed above might provide Brussels' decision-makers with inspiration; lest those at the periphery be forced to continue driving change despite EU politicians.

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Full report at www.pan-europe.info

Pesticides in parliament

On 10 October 2007, PAN Europe together with Friends of the Earth Netherlands published an analysis of food items purchased inside the European Parliament. The eight fruit items involved in the study (strawberries, apricots, oranges, apples, pears and three bunches of grapes) were shown to contain 28 different pesticides, of which four exceeded EC Maximum Residue Levels. In total 10 known carcinogens, three neurotoxins, three reprotoxins, and eight suspected endocrine disruptors were detected in the fruits. Two contaminants were substances classified by the World Health Organisation as being 'Highly Hazardous'. Subsequent calculations revealed that just two of the oranges contained enough imazalil – a

known carcinogen – to exceed the acute reference dose for a five year old toddler.



Elliott Cannell (PAN Europe) and Hiltrud Breyer MEP (Greens/ EFA) demanding tougher European legislation on pesticides at the media launch of 'Hazardous Pesticides in the European Parliament'. A full copy of the report can be downloaded from www.pan-europe.info