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Background

Over 100,000 synthetic chemicals are registered for use in the EU¹ and more than 400 million tonnes are produced globally each year². However, little toxicity data exists for the majority of these chemicals, and most have never been adequately assessed for their human and environmental safety³.

Pesticides are chemicals designed to exert toxicity selectively, but have a potential for unintended consequences on human health (both that of the grower and consumer) and the environment⁴. Whilst fertilisers are not considered to be persistent, bioaccumulative or toxic (PBT) chemicals, their use and excessive application can contribute to environmental problems, particularly waterway eutrophication⁵, and minimal application is therefore desirable.

Materiality and strategy

The use of PBT chemicals, pesticides and fertilisers is recognised as a priority for the supply chain management of own-brand food products, the consumer use of own-brand household products and the operations of The Co-operative Farms. The Co-operative Financial Services also recognises its influence in this area as a provider of finance and investments.

The Co-operative Food's Ethical Policy commits it to being the UK's leading retailer in the removal of substances of concern, and the new Ethical Operating Plan (page 13) commits to a continuous improvement of the Pesticides Policy. The Co-operative Bank's Ethical Policy states that it will not finance the manufacture of PBT chemicals, whilst The Co-operative Asset Management will seek to influence investees to end the production of such chemicals.

Targets 2010	Progress	Targets 2011
Indicator: Pesticides reduction (Performance benchmark page 89)		
		EOP Further enhance the Pesticides Policy, and seek to ban chemicals such as Endosulfan and Paraquat.
Complete the roll-out of The Co-operative Food's Pesticides Policy across frozen vegetable categories.	Roll-out complete (see below).	Reduce pesticide derogations by 10% against 2010 levels.
Review The Co-operative Food's pesticides residue testing programme to increase the scope of testing, and improve results analysis and online reporting.	The pesticide residue testing process has been improved, and the scope of the test now covers 415 residues (page 89).	Ensure the new Co-operative Retail Online Pesticide Network (CROP) system is fully utilised by suppliers of fresh produce during 2011, and suppliers of frozen and canned produce by 2012.
		Establish an Expert Pesticide Overview Group and identify residue reduction targets.
Indicator: PBT chemicals reduction		
Progress the development of a REACH database within The Co-operative Food.	Launch of the database has been delayed until 2011 as a result of the integration with Somerfield (page 90).	Progress the development of a REACH database within The Co-operative Food.
Extend the range of household products accredited to the EU Eco-label standard.	Technical difficulties delayed the expansion, however, product development will be progressed in 2011 (page 90).	Extend the range of household products accredited to the EU Eco-label standard.
Indicator: Fertiliser reduction		

Pesticides reduction

The Co-operative Food Pesticides Policy

The Co-operative Pesticides Policy seeks to reduce the use of pesticides in all own-brand fresh, frozen and canned produce.

To date, a total of 443 pesticides are listed in the Policy as banned, prohibited or monitored:

- Banned (32) – pesticides should not be used under any circumstances.
- Prohibited (89) – pesticides should not be used, other than in exceptional circumstances pre-approved by The Co-operative Food ('derogations').
- Monitored (322) – pesticides may be used, but more benign alternatives should be considered and full justification for use should be made available to The Co-operative Food on request.

Pesticides banned 2010

32 pesticides banned in line with the Pesticides Policy
2009: **24**

The Pesticides Policy determines that the use of pesticides by growers should be considered only as a last resort, when the use of preventative measures (such as land choice, crop rotation and crop hygiene, and cultural and biological controls) has been fully explored with limited success. From 2010, the list of banned pesticides is updated using the Prior Informed Consent (PIC) and Persistent Organic Pollutants (POP) lists, which are revised independently. Pesticides previously banned by The Co-operative, but not on the PIC or POP, are now listed as 'prohibited'.

In 2009, The Co-operative Food specifically highlighted to suppliers the likely change in status of two pesticides on The Co-operative's lists as a result of planned reviews under international conventions: Paraquat from 'monitored' to 'prohibited' and Endosulfan from 'prohibited' to 'banned'⁶. Following the temporary move of neonicotinoid pesticides to 'prohibited' status in 2009, two of these were moved to 'monitored' in early 2010 following a review of new research⁷.

Pesticide residue analysis

Regular audits are undertaken to ensure compliance with the Pesticides Policy. These comprise desk-based traceability audits⁸, site audits, agronomic audits and pesticide analysis, the latter of which is undertaken on a monthly basis by an independent third-party analytical laboratory. In instances where the Pesticides Policy is breached, sourcing from the supplier/grower temporarily ceases, pending the conclusions of a full investigation. Where appropriate, corrective action is secured; however, should this not prove to be forthcoming, the relationship will cease.

🔍 During 2010, the pesticide residue testing process was extended, such that the scope of the test now covers 415 residues. Due to movement to a new facility, a reduced number of tests took place in comparison with the previous year. No banned pesticides were detected, and a prohibited pesticide residue at levels in excess of the maximum residue limit (MRL)⁹ was detected in one sample where pre-approval had not taken place. This will be followed up with the individual supplier in 2011.

Performance benchmark

In March 2009, Pesticides Action Network published a study comparing the pesticides policies of 10 UK supermarkets. The Co-operative Food was named as one of three retailers doing the most to address pesticide use and the contamination of food.

The Co-operative Food pesticide residue analysis

Pesticide analysis results	2006	2007	2008	2009	2010
Total number of samples tested	184	238	257	268	124
Average number of tests per product sample	84	82	82	140	174
Banned pesticides detected	–	1	0	0	0
Derogations granted for prohibited pesticides	–	13	39	282	168
Number of residues in excess of MRL	3	0	0	0	1
Prohibited pesticides detected without derogation	5	0	0	8	4
% samples with no residues	64%	74%	70%	56%	49%

In 2010, an internet-based pesticides portal, the Environmental Practice at Work (EPAW) system, was introduced to help first tier suppliers comply with pesticide requirements. From 2011, EPAW will be improved with the addition of the Co-operative Retail Online Pesticide Network (CROP) system, which will provide suppliers with suggested alternatives to prohibited chemicals, allow online derogations and improve data-tracking. The system will be utilised by suppliers of fresh produce in 2011, and frozen and canned produce suppliers from 2012.

Neonicotinoid research

As part of Plan Bee (page 86), The Co-operative funded an independent research project to determine the effects of neonicotinoids on bees. The project quantified the level of neonicotinoid exposure in resources available to bees, such as guttation fluid, pollen and nectar. The effects of these exposures on honeybee and bumblebee

mortality and performance were then assessed, followed by the wider impacts of these chemicals on bee behaviour. The research is currently under peer review. In 2010, The Co-operative funded a further research project to determine the effects of neonicotinoids on bee brood (infant bees), the results of which are expected in spring 2012.

Chemicals reduction

The Co-operative Food Chemicals Strategy

The Co-operative Food Chemicals Strategy identifies 38 chemical types for removal from own-brand non-food products, including 19 added during 2010¹⁰. Chemicals are primarily selected as defined by the Oslo–Paris Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)¹¹, and based on

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emerging evidence of problematic impacts, such as with Bisphenol A and PVC.


The list is reviewed periodically in line with the European Chemical Agency list of Substances of Very High Concern (SVHC), and those SVHCs not already covered by the Strategy are added. In some cases, such as cadmium, legislation has severely restricted the options for usage¹².

A full list of chemicals identified for removal is provided in the online version of this Report , together with examples of recent decisions taken in connection with chemicals where there is concern but, as yet, no internationally established consensus.

REACH regulations


The Co-operative supports the principles and objectives of the European regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals)¹³ and campaigned for its introduction. REACH came into force in June 2007, and its implementation will be phased in over 11 years, until 2018¹⁴.

In line with REACH, The Co-operative Food has committed to the following:

- the European Chemicals Agency will be notified in 2011 as to whether any products contain 0.1% or more of Substances of Very High Concern;
- the REACH data will be included in the Co-operative Online Resource Environment (CORE) database, which will enable the exchange of information between the business and its supply chain.  Launch of the database has been delayed until 2011, as a result of the integration with Somerfield; and
- from 2011, a due diligence programme will test the safety of The Co-operative Food's products against the CORE declarations. Non-compliant products will be withdrawn from sale.

Ecological Cleaning Range

Since 2008, The Co-operative Food has produced an own-brand ecological cleaning range consisting of seven products. At the time of launch, the range was the only brand in the UK to carry both the EU's Eco Flower logo and the BUAV 'Cruelty-Free' logo.

 Technical difficulties in further developing the range delayed expansion during 2010, however this will be progressed in 2011.



CFS green branch refurbishments

Designated CFS supplier contracts are screened against a range of toxic chemicals, based on the OSPAR List of Chemicals for Priority Action, together with Bisphenol A and PVC. In 2010, the 'green branch' refurbishment programme continued, with seven bank branches and eight regional sales offices being refurbished according to the 'green branch' specifications. All reactive maintenance – for example, replacement of furniture and painting – carried out in 2010 was required to adhere to the specifications. One bank branch was unable to meet all 'green branch' specifications due to local planning regulations. From 2011, the programme will include the Britannia estate.

Bank and membership plastic cards

The majority of all credit and debit cards in the world are made of PVC¹⁵. Since 2007, all cards issued by the bank have been PVC-free (over 2.5 million¹⁶), instead utilising the plastic glycol-modified polyethylene terephthalate (PETG), which does not contain chlorine or use it in its production. Likewise, since their introduction in 2006, all membership cards (some 8.5 million) have been manufactured from PETG.

The Co-operative Farms

The Co-operative Farms minimises the application of chemicals, such as fertilisers and pesticides, through crop rotation and varietal choices that maintain soil health and limit the spread of pests and plant disease. Minimum tillage is favoured, as this ensures that energy use during crop establishment is reduced and earthworm and soil microbe communities are maintained. Soil samples are taken to determine nitrogen fertiliser requirements, and grain nitrogen is sampled to help refine the decision-making process on each individual farm.

Fertiliser use

Fertilisers are applied either via the soil for uptake by plant roots, or by foliar feeding for uptake through leaves¹⁷. In comparison with the previous year, fertiliser inputs reduced in 2010, attributable to the use of nitrogen planning tools, and a change in crop mix, including an increase in fallow land and land covered by fruit orchards, which require less fertiliser than other crops.

Co-operative Farms' fertiliser purchases (kg/ha)

	2006	2007	2008	2009	2010
Nitrogen	113	244	224	180	143
Phosphorus	20	15	22	30	25
Potassium	14	15	14	24	21

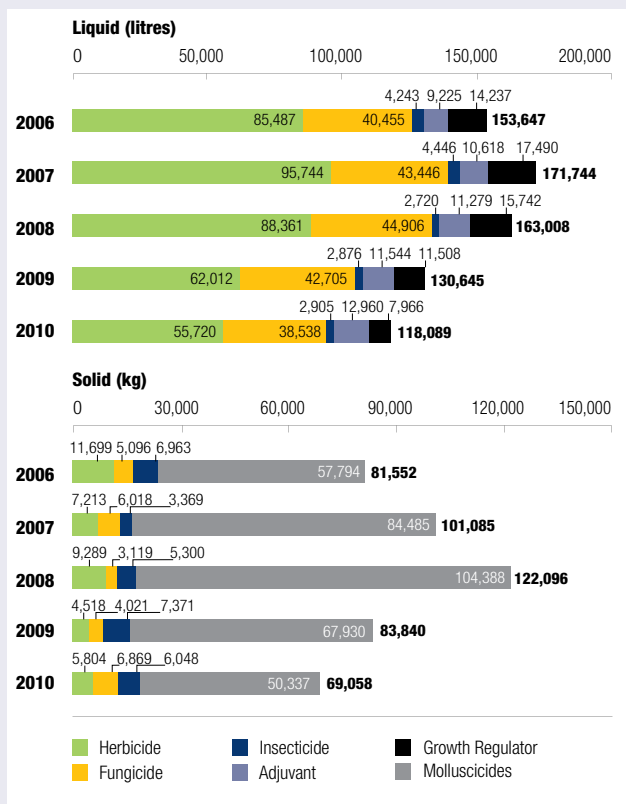
Pesticide use

Pesticide usage remained broadly comparable with the previous year. Dry conditions resulted in shorter cereal crops, reducing the need for application of growth regulator – used to prevent crops being beaten down by weather prior to harvest – and solid molluscicide.

The Co-operative farming at Louth Park Farms.



Co-operative Farms' pesticide, adjuvant¹⁸ and growth regulator¹⁹ purchases



Ethical finance

The Co-operative Asset Management (TCAM) overseas shareholder resolutions

In 2010, TCAM was presented with four overseas shareholder resolutions relating to chemicals of concern, all of which were supported.

Company	Resolution	Vote registered
CocaCola Co	To report on Bisphenol A use and development of alternatives.	Supported
ConocoPhillips	To adopt stringent goals to reduce emissions of toxic chemicals from refineries.	Supported
Dow Chemical Co	To report on the pace and effectiveness of the company's remediation project in an area impacted by dioxin exposure.	Supported
Occidental Petroleum Corp	To report on security of chemical facilities.	Supported

Community involvement

In 2010, The Co-operative again provided £5,000 in sponsorship for Pesticides Action Network's annual Rachel Carson Memorial Lecture.

Accompanying notes

- European Inventory of Existing Commercial chemical Substances (EINECS).
- WWF (May 2003) Chemicals and Health in Humans.
- Defra (2008) Consultation on the enforcement of REACH in the UK.
- www.pesticides.gov.uk/about_pesticides.asp
- Excessive plant growth and decay that may lead to lack of available oxygen and reduced water quality affecting fish and other animal populations.
- Paraquat and Endosulfan are to be reviewed under the Rotterdam Convention (PIC) in 2010 and Stockholm Convention in 2012 respectively. See www.pic.int and www.pops.int
- Thiacloprid and Acetamiprid were moved to 'monitored'. Clothianidin, Dinotefuran, Imidacloprid, Nitenpyram, Thiamethoxam and Fipronil remain on the 'prohibited' list.
- Traceability audits are undertaken by The Co-operative Food's Quality Assurance team, which analyses Pesticide Application Records. These detail the number, rate and dates of pesticide application. Assurance is sought that the decision to use pesticides in the growing process has been based on sound information, and that due consideration has been given by the grower to integrated crop management procedures.
- According to the Pesticides Safety Directive (PSD), maximum residue limits (MRLs) are established on the basis of highest residues expected when a pesticide product is applied in accordance with instructions for use (Good Agricultural Practice). Under these arrangements, the PSD contends that such residue levels do not pose unacceptable risks for consumers.
- Listed in the online version of this Report.
- www.ospar.org/content/content.asp?m=00940304440000_000000_000000
- RoHS Regulations (2006), Dangerous Substances Marketing and Use Directive.
- Regulation EC 1907/2006.
- ec.europa.eu/environment/chemicals/reach/reach_intro.htm
- REACH regulations require manufacturers, importers and downstream users of chemicals to demonstrate safe product use and disposal for approximately 30,000 of the 100,000 chemical substances in use in the EU.
- ICMA (International Card Manufacturers Association). www.icma.com
- An extrapolation based on data available up to October 2010.
- Fertilisers are used to promote growth and supplement the three major plant nutrients (nitrogen, phosphorus and potassium), the secondary plant nutrients (calcium, sulphur and magnesium) and sometimes trace elements with a role in plant nutrition (boron, chlorine, manganese, iron, zinc, copper and molybdenum).
- To decrease the use of pesticides, adjuvants are also utilised. An adjuvant is a substance, other than water, that is not a pesticide, but which enhances, or is intended to enhance, the effectiveness of the pesticide with which it is used.
- Growth regulators are synthetic plant hormones that modify natural growth in cereals and are used in conjunction with pesticides and adjuvants to optimise crop productivity.