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## **Report: Enforcement Programme for Plant Protection Products for the year 2006, in Ireland**

### **1. SUMMARY**

In Ireland, the Pesticide Control Service of the Department of Agriculture, Fisheries and Food is responsible for the regulation of the marketing and use of plant protection and biocidal products.

In 2006, the Pesticide Control Service (PCS) carried out 445 inspections in traders' premises to ensure that plant protection products offered for sale were registered and correctly labelled. Some 339 infringements were detected (mainly contraventions of packaging and labelling provisions, or products for which registrations had been withdrawn during 2005).

A new Formulation Laboratory was commissioned in 2006, and a program of controls was recommenced at the end of the year.

In the 2006 pesticide residue routine monitoring program, 1,328 samples of food of plant and animal origin were analysed for pesticide residues of 153 different pesticides. Some 33 violations of pesticide maximum residue levels (MRLs) were detected in routine sampling, of which 14 were in foods produced in Ireland. Two of these infringements also reflected unauthorised use of plant protection products in Ireland.

The National Poisons Information Centre identified 11 incidents of occupational poisoning with plant protection products, in 2006.

A trial screening and monitoring programme for chemical pollutants in the Irish aquatic environment concluded towards the end of 2006. The work was undertaken to prepare for the introduction thereafter of a formal monitoring programme to meet the requirements of the Water Framework Directive. Results from the second and third stages of the trial programme, conducted during 2006, show that pesticides were generally detected infrequently in Irish surface water, sediment and biota, and where they did occur, were generally at low levels.

There were no issues identified that could have implications for the regulatory authorities in other Member States (Annex 1)

## 2. INFORMATION ON ORGANISATION OF THE CONTROLS

Staff assigned to the Pesticide Control Service (PCS) of the Department of Agriculture and Food implement the control programme for plant protection products. The PCS is also responsible, *inter alia*, for implementing the regulatory system for biocidal products, for the classification, packaging and labelling of plant protection and biocidal products and for the national monitoring and enforcement programmes relating to residues in primary agricultural produce.

### Control strategy

Controls on sale and on classification, labelling and packaging are implemented through inspections conducted at wholesale and retail stores and sales outlets, in accordance with a programme set out before the beginning of each year. These inspections are complemented by an independent voluntary registration scheme (BASIS Registration ROI Limited) involving separate inspection and certification of wholesale and retail outlets. BASIS Registration ROI Limited also provides a FETAC<sup>1</sup> accredited training programme for advisory personnel.

Controls on product composition involve the chemical analysis of samples of plant protection products taken during routine inspections of wholesale and retail premises, in accordance with the programme defined for that year.

The principal means used to ensure the proper use of plant protection products are:

- sampling and analysis of primary agricultural produce for residual traces of pesticides,
- inspection of usage records of growers under the Single Farm Payment Cross-Compliance Inspection regime
- monitoring occupational incidents of poisoning that involve plant protection products, and
- monitoring of pollutants in surface and ground water samples.

These controls are supplemented by voluntary quality assurance schemes in the grain sector, operated on behalf of Cereals Association of Ireland (which had about 6,000 participants in 2006), and the horticulture sector, operated by *Bord Bia*<sup>2</sup> & the NSAI<sup>3</sup> (which had about 430 participants in 2006). Both quality assurance schemes require compliance with the regulatory framework in place and specify requirements for the safe storage, handling and use of plant protection products and for recording their use.

The programme of annual **Pesticide Usage Surveys** was initiated in 2003, and will, over time, provide a useful basis for assessment of the extent of use and of trends in the use of particular plant protection products. It will also provide useful baseline data for use in programmes being developed to reduce the risks associated with use of plant protection products.

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<sup>1</sup> Further Education and Training Awards Council

<sup>2</sup> Irish Food Board

<sup>3</sup> National Standards Authority of Ireland

In addition, PCS staff make regular presentations to advisors, growers and other interested parties to emphasize the necessity of complying with approved label instructions and the principles of Good Plant Protection Practice

### **3. REPORT ON CONTROL MEASURES**

#### **3.1 Controls on Sale and on Labelling and Packaging of plant protection products**

A total of 445 inspections were carried out in 2006. Some 339 infringements of the regulations were identified. There were 336 minor infringements (mainly packaging and labelling provisions or products for which registrations had been withdrawn during 2006) and three more serious violations. The latter three cases involved failures to comply with requirements specified when a previous violation had been detected.

#### **3.2 Controls on Composition of plant protection products**

The program of controls on composition of plant protection products recommenced at the end of 2006 on the commissioning of a new Formulation Laboratory. Some 34 samples were tested as part of the process of establishment of the new laboratory. (A full program of testing is being undertaken in 2007.)

#### **3.3 Controls on Use of plant protection products at user level**

The findings of the control programs, and additional indicators are presented in Annex 2, Annex 3 and Annex 4.

Some 1,317 inspections were carried at farm level under the Single Farm Payment Cross-Compliance Inspection regime in conjunction with the Integrated Controls Division of the Department of Agriculture, Fisheries and Food. No infringements requiring enforcement action were detected.

### **4. CONCLUSIONS**

The number of inspections of traders' premises carried out in 2006 almost doubled compared with the previous year, when inspections were curtailed due to the transfer of headquarters to Backweston (445 in 2006 vs 233 in 2005). The proportion of inspections that revealed infringements decreased somewhat (76% in 2006 vs 85% in 2005). Many of these infringements related to plant protection products remaining at retail level for which registrations had been withdrawn in previous years. Many other infringements related to importation of products imported from other Member States without approval.

There was a decrease in the number of MRL violations in routine monitoring samples in 2006 (33 in 2006, compared with 42 in 2005). The number found is in line with the mean EU exceedances level. In 2006 samples were analysed for 153 different pesticides and their metabolites, compared with 148 in 2005. The full results have been reported to the Commission within the prescribed deadline.

The results of inspections and residue testing are broadly indicative of compliance with the regulatory system for plant protection products. The introduction of inspections under the Single Farm Payment Cross-Compliance regime has increased the number of inspections at user (farm) level, and has raised awareness among farmers of the legal requirements relating to the storage and use of plant protection products.

**Additional Indicators:**

The number of **incidents of occupational poisoning** with plant protection products reported to the National Poisons Information Centre in 2006 was 11, which was an increase on the number reported in 2005 (9). In recent years the trend in the number poisoning incidents reported to the NPIC has decreased, as increasing numbers of hospital A&E departments have online access to a poisons information database. Nonetheless, the incidents of occupational poisoning suggest that insufficient care is taken when handling and applying plant protection products. Compliance with label instructions for the safe use of plant protection products needs to be improved.

**Water Quality:** The low incidence of residual traces of pesticides in surface water, sediment and biota samples is consistent with responsible use of plant protection and biocidal products. Results from the trial screening and monitoring programme are indicative of any levels detected being low. With regard to groundwater, pesticides were detected on a few occasions during 2006. Levels detected were generally significantly lower than the EU drinking water limit value of 0.1 µg/L, which was only exceeded in one instance.

## **ANNEX 1**

### **Specific problems**

There were no specific problems identified that could have implications for the regulatory authorities of other member states.

## **ANNEX 2**

### **Inspections and monitoring carried out in accordance with Directives on residues in food**

The occurrence of excessive levels of residual traces of pesticides in primary agricultural produce indicates a failure to comply with Good Agricultural Practice (GAP), as specified on plant protection product labels, during production or storage of the plant or animal produce concerned. The pesticide residue-monitoring programme undertaken by the PCS serves to identify instances of non-compliance with the GAPs or non-authorized uses of particular plant protection products.

In 2006, a total of 1561 samples were analysed for their pesticide residue content, comprising 909 routine samples of fruit and vegetables (including 49 of organic produce & 85 of processed produce), 52 routine samples of cereals, 367 routine samples of food of animal origin, 3 complaint samples, and 230 targeted/statutory samples. Imported produce accounted for 77% of the fruit and vegetable samples and 49% of the cereal samples. The targeted samples were taken by way of follow-up to violations of Maximum Residue Levels (MRLs) detected through routine monitoring in 2005 and earlier years and the statutory samples were taken with a view to commencing statutory action against the owners of the produce concerned. The majority of targeted samples were of cereals (215 samples), and were taken as part of an investigation arising from findings during routine sampling and analysis.

The results of the analyses are presented in Table 1, overleaf.

**Table 1: Summary results of analysis of samples of agricultural produce for pesticide residue content in 2006**

Type of Sampling	Commodity	Number of Samples	Residue Levels		
			None detected	≤ MRL	> MRL
Routine Monitoring	Fruit & Vegetables	909	438	445	26
	<i>(incl. 1. Organic Produce</i>	<i>49</i>	<i>41</i>	<i>8</i>	<i>0</i>
	<i>2. Processed Produce</i>	<i>92</i>	<i>85</i>	<i>7</i>	<i>0</i>
	<i>(incl cereals))</i>				
	Cereals	52	32	15	5
	Food of Animal Origin	367	351	14	2
<b>Routine Monitoring Totals</b>		<b>1328</b>	<b>821</b>	<b>474</b>	<b>33</b>
<b>% of Total</b>			<b>61.8%</b>	<b>35.7%</b>	<b>2.5%</b>
Complaint	Fruit & Vegetables	3	3	0	0
Targeted and Statutory Samples	Fruit & Vegetables	13	4	7	2
	Cereals	215	167	48	0
	Food of Animal Origin	2	0	2	0
<b>Overall Totals</b>		<b>1561</b>	<b>995</b>	<b>531</b>	<b>35</b>

MRLs were exceeded in 26 instances for routine samples of fruit and vegetables (see Table 2 below for the details of the pesticides and crops/commodities involved). MRLs were exceeded in five instances for routine samples of cereals. MRLs were exceeded in two instances for routine samples of food of animal origin. No routine sample of organic produce or processed produce contained a residue in excess of an MRL. One statutory sample of vegetables was found to contain residues at a level which exceeded the relevant MRL.

Details of the substances found are given in Table 2, overleaf.

**Table 2: Active substances found to exceed MRLs in routine samples in 2006**

<b>Category</b>	<b>Pesticide</b>	<b>Origin</b>	<b>Commodity</b>
Fruit & Vegetables	azoxystrobin	Brazil	Mango
Fruit & Vegetables	azoxystrobin	Ireland	Lettuce
Fruit & Vegetables	carbendazim	Ireland	Spinach
Fruit & Vegetables	chlorfenvinphos	Ireland	Carrot
Fruit & Vegetables	chlorpyrifos	Spain	Pomegranate
Fruit & Vegetables	chlorpyrifos	Thailand	Litchi
Fruit & Vegetables	cypermethrin	Ireland	Lettuce
Fruit & Vegetables	cypermethrin	Spain	Pomegranate
Fruit & Vegetables	cypermethrin	Thailand	Rambutan
Fruit & Vegetables	demeton-s-me-sulfone	Ireland	Lettuce
Fruit & Vegetables	dicofol	Chile	Apple
Fruit & Vegetables	dimethoate	Ireland	Lettuce
Fruit & Vegetables	dimethoate	Israel	Peach
Fruit & Vegetables	fenvalerate	Chile	Blueberry
Fruit & Vegetables	iprodione	Egypt	Orange
Fruit & Vegetables	linuron	Ireland	Parsnip
Fruit & Vegetables	methidathion	Italy	Kiwi Fruit
Fruit & Vegetables	procymidone	Peru	Mandarin
Fruit & Vegetables	procymidone	Peru	Mandarin
Fruit & Vegetables	procymidone	Peru	Satsuma
Fruit & Vegetables	procymidone	Spain	Celery
Fruit & Vegetables	propyzamide	Ireland	Lettuce
Fruit & Vegetables	thiabendazole	Chile	Plum
Fruit & Vegetables	thiabendazole	Cyprus	Mandarin
Fruit & Vegetables	thiabendazole	Guatemala	Pineapple
Fruit & Vegetables	thiabendazole	Spain	Courgette
Fruit & Vegetables	thiabendazole	Spain	Orange
Fruit & Vegetables	thiabendazole	Spain	Peach
Cereals	diazinon	Ireland	Oats
Cereals	diazinon	Ireland	Oats
Cereals	diazinon	Ireland	Oats
Cereals	diazinon	Ireland	Oats
Cereals	diazinon	Ireland	Oats
Food of Animal Origin	diazinon	Ireland	Ovine Meat
Food of Animal Origin	lindane	Íreland	Porcine Meat

### ANNEX 3

#### **Occupational Poisoning Incidents**

The approved labels for plant protection products contain instructions to be followed by those handling and using them. These instructions include measures designed to protect human health and frequently include recommendations relating to the use of particular protective clothing and equipment. Statistics on occupational poisoning incidents with plant protection products provide a useful, if indirect, indicator of the degree of compliance with those label instructions. Some 11 occupational poisoning incidents involving plant protection products were reported in 2006. None of the cases reported resulted in fatalities. Most of the poisoning incidents were associated with the inhalation and dermal routes of exposure.

The results are summarised in Table 3.

**Table 3: Incidents of occupational poisoning with plant protection products in 2006**

Route of Exposure	Number of incidents
Ingestion	0
Inhalation	4
Skin	4
Eye	1
Multiple Routes	2
Total	11

Source: National Poisons Information Centre

## ANNEX 4

The trial screening and monitoring programme for chemical pollutants in the Irish aquatic environment (National Dangerous Substances Screening Monitoring Programme) was conducted under the auspices of the South Eastern River Basin District project and coordinated by Carlow County Council. The programme comprised Priority Action Substances identified in EU legislation and Candidate Relevant Pollutants selected on the basis of expert judgement. Seventeen pesticides were included in the Priority Action Substances list – 12 from Annex X of the Water Framework Directive (2000/60/EC), and 5 from List I of the Dangerous Substances Directive (76/464/EEC). The Candidate Relevant Pollutants list contained 45 additional pesticides, selected on the basis of information concerning their extent of use and potential effects in the aquatic environment.

The results obtained are indicative of an absence of unexpected concentrations of residual traces of pesticides in surface water, sediment and biota. Monitoring of groundwater samples in 2006 indicated an absence of traces of many of the compounds included in the programme. Maximum individual concentrations of pesticides detected in groundwater samples were generally significantly lower than the EU drinking water limit value of 0.1 µg/L, which was only exceeded in one instance.

The official Water Framework Directive Monitoring Programme for Ireland became operational on 22 December 2006. Results from this monitoring programme will be published on the website of the Irish Environmental Protection Agency ( <http://www.epa.ie/whatwedo/wfd/monitoring/results/> ).