2006

Pesticides Residues in Food

Department of
Agriculture,
Fisheries and Food
An Roinn
Talmhaíochta,
Iascaigh agus Bia

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Foreword

I am very pleased to present the results of the national monitoring programme for pesticide residues in food carried out in 2006 by the Department of Agriculture, Fisheries and Food (DAFF) Pesticide Control Service (PCS) under the terms of a service contract with the Food Safety Authority of Ireland. Food safety is of great importance to all involved in the food chain and, through the residue monitoring programme, consumers can be assured that they are not exposed to unacceptable pesticide residue levels and that authorized pesticides are applied to food crops. Samples of food are analysed in the DAF's Pesticide Control Laboratory which is accredited by the Irish National Accreditation Board (INAB) of Ireland to the ISO 17025 standard for the analysis of selected pesticide residues in food of plant and of animal origin. The accreditation status of the laboratory will continue to be extended to cover additional pesticides and food commodities. This report provides detailed information on the organisation and execution of the monitoring programme, the results of the sampling and analysis programme for pesticide residues in both imported and domestic food in 2006 and on actions taken where unsatisfactory results are encountered.

Trevor Sargent TD
Minister for Food and Horticulture at the
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Introduction

The monitoring programme for pesticide residues in food undertaken by the Department of Agriculture, Fisheries and Food (DAFF) through its Pesticide Control Service (PCS), at Backweston, Co. Kildare, is aimed at ensuring that consumers are not exposed to unacceptable pesticide residue levels. In addition, it is aimed at ensuring that authorised pesticides are correctly applied to food crops and that the unauthorised use of pesticides is detected.

In accordance with the contractual arrangements between DAFF and the Food Safety Authority of Ireland (FSAI)[1], the annual monitoring programme carried out by the PCS has since 5 July 1999, been agreed with and conducted on behalf of the FSAI.

The monitoring programme in place involves sampling of imported and domestic produce. The analytical part of the monitoring programme reflects pesticide usage patterns both in Ireland and abroad. Some 800 active substances are registered for use in plant protection products around the world, of which between 300 and 400 are in common use. The number of active substances registered for use in plant protection products within the EU continues to fall as a direct result of the review programme being undertaken in accordance with the requirements of Council Directive 91/414/EEC and it is expected that there will be a maximum of circa 350 active substances authorised for use within the EU in 2008 when this review is complete.

Pesticide residue levels in plant and animal products are regulated through the establishment of Maximum Residue Limits (MRLs). In 2006 MRLs have been established in Ireland for almost 200 pesticides in fruit and vegetables (including tea), for 170 pesticides in cereals and 120 pesticides in food of animal origin, reflecting relevant European Union (EU) legislation. A new Regulation 396/2005 to control pesticide residues in food has been adopted and has as its objective the establishment of harmonised EU MRLs for all pesticides within 12 months of its adoption. Progress with the implementation of this Regulation is somewhat behind schedule and it is now predicted that it will not become operational until July 2008.

When MRLs are exceeded, officers of the PCS may remove the produce concerned from the market and destroy it at the owner's expense. The Minister may also prosecute offenders. A dietary intake calculation is carried out in all cases where an MRL is exceeded, to determine whether the intake has exceeded the Acceptable Daily Intake (ADI), or the acute reference dose (ARfD), where appropriate for the pesticide in question and to determine if it presents a risk to Irish consumers, both adult and children. The results of these evaluations are provided to and independently verified by the FSAI. Where warranted, a "Rapid Alert" [2] can be issued by the FSAI. A Rapid Alert is issued when levels of residues detected in food are considered to be harmful to the consumer.

Explanations of the various technical terms used in this report are provided in a glossary at the end of this report (Annex III).

1 Service Contract between the Food Safety Authority of Ireland and the Department of Agriculture, Food and Rural Development dated 18th day of December 2002
2 Regulation (EC) No. 178/2002 of the European Parliament and of the Council of 28th of January 2002.

Monitoring Programmes

Monitoring programmes are in place for the three different food groups for which MRLs have been established, food of plant origin (including fruit and vegetables), cereals and food of animal origin (meat, milk, honey and dairy produce). Officers of the PCS carry out the sampling of food of plant origin and cereals, while members of the Dairy Science, Horticultural and Veterinary Inspectorates of the DAFF carry out the sampling of food of animal origin.

The monitoring programme for 2006, agreed with the FSAI, takes into consideration -

i the programme recommended by the European Commission[3],
ii dietary intake patterns of Irish consumers[4],
iii the residue profile of commodities as established from the results of the monitoring programme in previous years,
iv findings from other member states programmes and the EU co-ordinated programme,
v pesticide sales data,
vi handling/processing of food prior to consumption.

The total number of routine monitoring samples analysed at 1328, reflected the capacity of the laboratory to process samples submitted in 2006 and are consistent with the number of samples analysed in 2004 and 2005. 2006 was the first year of operations at the new facilities at Backweston. As in previous years significant resources were employed within the laboratory to maintain systems and procedures to support INAB[5] accreditation of the laboratory in accordance with the requirements of Council Directives 89/397/EEC[6] and 93/99/EEC[7]. The laboratory is currently accredited to ISO 17025 standard for the analysis of pesticide residues in both food of plant and of animal origin using gas chromatographic techniques. The scope of this accreditation will be extended in 2007 to include additional pesticides and food commodities and will reflect the addition of analytical methods using HPLC/MS/MS into the laboratory programme.

The monitoring programme is the primary means of verifying that plant protection products (pesticides) are used in accordance with *Good Agricultural Practice*. The monitoring programme is essential if the misuse of legal and the use of illegal products is to be detected and eliminated. Authorised plant protection products can be misused in various ways, e.g. the use of excessive dose rates, failure to respect the minimum periods specified between last application and harvest (i.e. pre-harvest intervals) and use for purposes for which they are not authorised (i.e. illegal uses). When used in accordance with *Good Agricultural Practice* unacceptable levels of pesticide residues should not occur in treated produce.

3 Commission Recommendation of 1st of March 2005, concerning a co-ordinated Community monitoring programme for 2005 to ensure compliance with maximum levels of pesticide residues in and on cereals and certain other products of plant origin (2005/178/EC) OJ No L 61/31 of 8th of March 2005.
4 IUNA, North South Food Consumption Database, 2001.
5 Irish National Accreditation Board
6 Council Directive of 14 June 1989 on the official control of foodstuffs. (89/397/EEC) OJ No. L 186 of 30.6.1989
7 Council Directive of 29 October 1993 on the subject of additional measures concerning the official control of foodstuffs. (93/99/EEC)OJ No. L 290 of 24.11.1993

In accordance with the European Communities (Prohibition of Certain Active Substances in Plant Protection Products) Regulations, 1981 to 1990, the marketing and use of certain plant protection products are prohibited because of risks to human health or the environment associated with their use. The residue monitoring programme also serves as an indicator of the level of compliance with those provisions.

A SAMPLING OF FRUIT AND VEGETABLES

Routine sampling is biased in favour of food commodities that are of greater dietary importance. Within particular commodity groups, samples are taken at random. Both domestic and imported produce are sampled, primarily at wholesale level by authorised officers of the Pesticide Control Service. This approach ensures that samples taken are representative of consumption patterns and allows action to be taken, where necessary, prior to distribution.

As part of the violation investigation programme, fruit and vegetables of specific origin are targeted for further special attention, where residues at levels in excess of MRLs have been found following routine sampling. When produce is targeted for statutory sampling, whether as a result of information generated through routine monitoring or following a Food Alert issued by the FSAI or a Rapid Alert notification to the FSAI from the EU Commission, the sampled lot is seized pending analysis. The analytical results always dictate the nature of the action taken with respect to the seized produce. When the results show a clear breach of an MRL, taking into account analytical uncertainty, the produce will not be allowed on the market and legal proceedings will normally be initiated.

B SAMPLING OF CEREALS

The main concern with respect to cereals relates to residues that arise as a result of post-harvest application of plant protection products. The current sampling programme for cereals is confined, for practical reasons, to the sampling and analysis of grain used in the milling, malting and breakfast cereal industries. Cereals and cereal products of both domestic and imported origin are sampled on a random basis, at point of assembly or storage by authorised officers of the PCS.

C SAMPLING OF FOOD OF ANIMAL ORIGIN

Random samples of bovine, porcine, ovine, poultry and venison fat are taken at a range of meat plants around the country. Dairy produce is sampled at production plants or points of assembly. Samples analysed relate only to domestic produce. Meat samples analysed are from individual animals. Each dairy produce sample taken is representative of a particular bulk consignment. Authorised officers of the Dairy Science and Veterinary Inspectorates of DAF carry out the sampling of meat and dairy produce.

D SAMPLES OF MISCELLANEOUS PRODUCTS

Complaint or suspect samples are submitted from time to time for analysis by DAF, other State Services, Local Authorities, consumers and other interested parties.

E ANALYTICAL PROCEDURES

The analytical methods used in most cases are multi-residue in nature, an approach that facilitates the maximisation of laboratory output. The detection and confirmation of the presence of pesticide residues in food samples depends on the use of specific detectors and where relevant chromatography columns of different polarity. Quantitative determinations are made by -

(i) Comparison with external standards, and
(ii) In the case of fruit, vegetables and cereals, use of a calibration curve of matrix-matched standards.

Samples are mainly analysed using gas chromatography. Mass spectrometery is the primary method used for the detection and identification of residues present.

An alternative multi-residue method of analysis, using HPLC/MS/MS, was used for the detection of benzimidazole residues. The method of analysis for the benzimidazole pesticides was not an accredited method in 2006.

References to the analytical methods employed are provided in Annex IV.

QUALITY ASSURANCE

Routine quality assurance procedures are followed within the laboratory in accordance with the requirements specified to maintain accreditation to the ISO 17025 standard. During 2006 the laboratory participated in 2 proficiency studies funded by the EU Commission along with 8 other studies, organised by the UK, Food Analysis Performance Assessment Scheme (FAPAS)[8]. The results obtained by the Pesticide Control Laboratory in these proficiency studies were acceptable in all cases with the exception of one result for carbendazim where a calculation error resulted in an incorrect result being provided.

In 2006 some 153 pesticides were analysed in all samples with ethylenebisdithiocarbamates (EBDCs) being determined in fewer samples. The number of pesticide residues being analysed in samples corresponds to the number being analysed in samples for the last quarter of 2004. During 2006, the introduction of new analytical technology and further method validation has increased the capacity of the laboratory to analyse for a larger number of pesticide residues, the benefits of which will be apparent in the 2007 work programme.

8 FAPAS is a registered trade mark of the UK Department of the Environment, Food and Rural Affairs [DEFRA]

RESULTS AND DISCUSSION

A FRUIT AND VEGETABLES

Routine Monitoring Programme

The results of the 2006 monitoring programme for fruit and vegetables are summarised in Table 1 below. Details of samples analysed and those found to contain pesticide residues are presented in Table 2.

In 2006, 909 routine samples of 75 different types of fruit and vegetables (fresh or dried) and 21 different types of processed fruit & vegetable products were analysed for their pesticide residue content. Of the samples taken 18.5% were of domestic origin, 43.6% were imports from other EU countries, 31% were imports from countries outside of the EU while a further 7% were of unknown origin. It is also interesting to note that of the samples imported from other EU countries 42% were sourced from Spain. Samples were analysed for residues of up to 153 pesticides and metabolites (Annex V). 48.2% of samples analysed contained no detectable pesticide residues, 48.8% contained one or more detectable residues at levels less than the statutory MRL while 2.9% of samples had residue levels that exceeded a statutory MRL.

Details of the residues detected are provided in Table 2 and in Figures 1, 2 and 3 below. In all, residues of 72 different pesticides were detected in 2006. EU MRL's exist for 52 of these compounds but none had been set for the remaining 20 pesticides in 2006. Regulation 396 of 2005 is currently in the process of establishing MRLs for all pesticides in food. This will be fully in force from September 2008 and will determine the acceptability of all pesticide residues found in food.

Figure 1. Source of F/V samples analysed in 2006

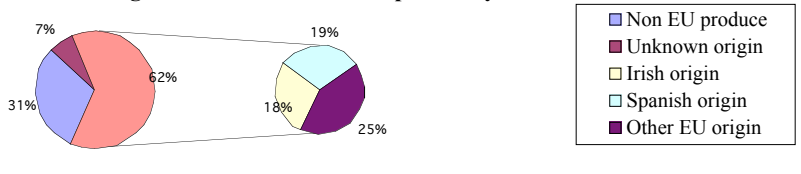


Figure 2: Frequency of F & V samples containing multiple pesticide residues in 2006

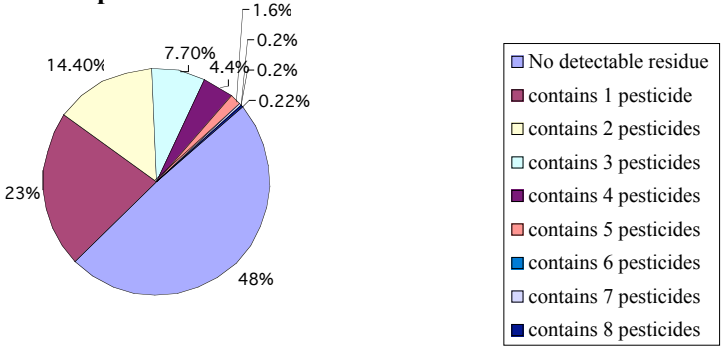
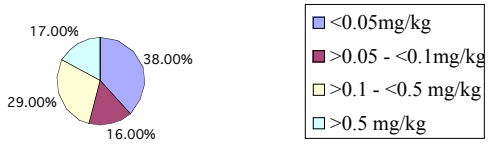


Figure 3: Concentration range of pesticide residues detected in fruit and vegetables in 2006



Of the positive samples thiabendazole (12.2%), iprodione (6.8%), chlorpyrifos (6.2%), diphenylamine (5.5%), captan (5.0%), prochloraz (4.2%), benomyl group (carbendazim) (3.9%), imazalil (3.5%), malathion (2.9%), procymidone (2.9%), propargite (2.8%), cyprodinil (2.5%), cypermethrin (2.5%), methidathion (2.2%), folpet (2.2%), carbaryl (2.1%), tebuconazole (2.1%), tolyfluanid (2.0%), chlorothalonil (1.9%), fludioxinil (1.8%), pyrimethanil (1.8%) and azoxystrobin (1.8%), were the most commonly detected pesticides in the routine monitoring programme. Other pesticides detected in samples analysed were azinphos-methyl, benalaxyl, bifenthrin, bitertanol, bromoproyplate, bupyrimate, carbofuran, chlorpropham, chlorfenvinphos, cyproconazole, deltamethrin, demeton-s-me-fone, dichlofluanid, dicofol, dimethoate/omethoate, endosulfan, est-fenvalerate/ fenvalerate, fenarimol, fenhexamid, fenitrothion, fenpropathrin, fenthion, fludioxinyl, flusilazole, tau-fluvalinate, kresoxim-methyl, lambda-cyhalothrin, linuron, maneb group, mepanipyrin, metalaxyl, methiocarb, myclobutanil, oxadixyl, phosalone, phosmet, pirimicarb, pirimiphos-me, propiconazole, propyzamide, pymetrozine, pyraclostrobin, pyrimethanil, simazine, tebuconazole, thiophanate-methyl, tolclofos-methyl, tolyfluanid, triadimefon/triadiminol, trifluralin and vinclozolin. A limited number of samples were analysed in 2006 for residues of ethylenebisdithiocarbamates and where residues were detected they are reported in Table 2. The rate of detection of particular pesticide residues in 2006 is similar to that for 2005. Residues of thiabendazole were again the most commonly detected residues in 2006, while there was a substantial fall in the frequency of detection of iprodione and benomyl group residues. Overall there was a lower frequency of detection of pesticides when compared to 2005 results. This may in part be due to the higher number of processed samples analysed in 2006 but in some cases, such as in the case of carbendazim, it probably also reflects decisions at EU level to restrict the number of approved uses for named pesticides in plant protection products. There is no apparent explanation for the lower frequency of detection for residues of iprodione where the frequency has reduced from 11.3% in 2005 to 6.8% in 2006. Chlorpyrifos, malathion and cypermethrin were the most commonly detected insecticides at a frequency of detection similar to 2005.

Thiabendazole is used mainly as a post harvest fungicide and was detected mainly in citrus, apples and in exotic fruits. Iprodione is used across a broad spectrum of crops (20 different crop types contained residues) and is used on both fruit and vegetables. Chlorpyrifos residues was detected mainly in citrus but was also found in pome (eg apples, pears etc), exotic fruit (eg mango, passion fruit, papaya, etc) and in root vegetables (eg. Carrots, turnips, parsnips etc). Residues of diphenylamine were found almost exclusively on apples and pears which corresponds with its main use in controlling apple scald. Residues of captan were detected mainly in apples, pears, citrus and in berry fruit. Prochloraz residues were found mainly in citrus fruit and in miscellaneous tropical fruit with some residues also being found in mushrooms and in lettuce. Residues of carbendazim were mainly detected in citrus and pome fruit. Residues were also found in stone, exotic and berry fruit. Details of all residues detected in fruit and vegetables are presented in Table 2.

In all, 209 samples (23%) contained residues of one pesticide, 123 samples (13.5%) contained residues of two pesticides, 67 samples (7.3%) contained residues of three pesticides, 40 samples (4.4%) contained residues of four pesticides, 15 samples (1.6%) contained residues of five pesticides, 2 samples (0.2%) contained residues of six pesticides, 2 samples (0.2%) contained residues of seven pesticides and 2 samples (0.2%) contained residues of eight pesticides.

Twenty six routine monitoring samples of fruit and vegetables were found to contain pesticide residues in excess of an MRL. Of the 158 samples of domestic origin, 7 (4.4 %)(lettuce x4, spinach, carrot and parsnip) contained residues in excess of an MRL, while in the case of the 410 samples sourced from other EU countries, 7 (1.7%) contained residues in excess of an MRL and of the remaining samples sourced from non EU countries, 12 (4.4%) had residues in excess of an MRL.

Nineteen of the 26 samples containing pesticide residues that exceeded an MRL, involved MRLs that have been established at the limit of determination (LOD). Eleven of the MRL exceedances occurred in foods that are considered to be of limited dietary importance (Kiwi x1, litchi x1, pineapple x1, pomegranate x1, rambutan x1, spinach x1, courgette x1, blueberry x1, parsnip x1, mango x1, plum x1), while the remaining fifteen samples (apples x1, orange x2, mandarin x3, satsuma x1, celery x1, carrot x1, lettuce x4, peach x2) are of greater dietary importance. Estimates of dietary intake for the pesticides found in these crops are presented in Table 17. In the case of carrots the estimated dietary intake exceeded the ADI and ARfD toxicological endpoints but when further practical considerations (peeling and topping) were taken into account it was concluded that the residues detected did not pose an unacceptable threat to the health of Irish consumers.

In the case of pesticides which are not used in the European Union but which may be used in other countries, MRLs are often established at the limit of determination (LOD), reflecting no authorised use within the EU. The occurrence of residues, in excess of such MRLs, in imported produce (i.e. technical MRL breaches) does not normally present an unacceptable risk for consumers. In 2006 all 12 MRL exceedances in produce imported from countries outside of the EU corresponded to situations where the EU MRL was established at the LOD. Such anomalies should be resolved in due course by discussions at the World Trade Organisation (WTO) and by continuing co-operation between the EU and food producer groups in third countries. Of the 26 samples found to have an MRL exceedance, 19 related to LOD MRLs of which seven, 2 Irish and 5 from EU countries, resulted from the illegal use of a plant protection product to these crops within the EU. In the case of the remaining seven samples, all from within the EU, where an MRL, in excess of the LOD has been established, the MRL exceedence found indicates that the relevant plant protection products were not used in accordance with the recommended good agricultural practice for those products. It is likely that either too much product was applied or the produce was harvested without observing the recommended withholding period.

Organic fruit and vegetable samples

In 2006, 49 samples of organically produced fruit and vegetables were analysed. 41 of these samples were pesticide free but eight (16.3%), three from Spain, three from Italy and one each from Chile and Uruguay contained trace pesticide residues at or near the limit of determination. The results confirm findings from 2005 which indicated that while the majority of the organic fruit and vegetables analysed were pesticide free a small percentage contained traces of pesticide residues. The results, on comparison with those from 2005, do show an increase in the level of detection of pesticide residues from 7.5% of samples in 2005 to 16.3% of samples in 2006. The presence of these pesticide residues suggests either the use of some plant protection products early in the growing cycle of these crops or that the samples were contaminated in some way with pesticides during handling post harvest. In any case, the residues found, while raising questions about the production systems used, present no risk to consumers of these organic fruit and vegetables. Details of the results of the organic samples analysed are presented in Tables 10 and 11.

Processed fruit and vegetables samples

In 2006, some 85 samples of processed fruit and vegetables were analysed to determine the level of pesticide residues present. Forty seven samples were of fruit or vegetable juices and the remainder were tinned fruit or vegetables. The analytical results indicate that the majority of the samples, 94%, contained no detectable pesticide residues and in the 6% of samples containing detectable residues, the concentrations present are at very low levels, the highest value being 0.1mg/kg. The presence of such low levels of pesticide residues suggests that there is little transfer of pesticide residues from the raw fruit or vegetables into the processed product or that fruit or vegetables used for processing do not receive the same level of pesticide treatment prior to harvest. In the 5 samples (6.3% of samples) that were found to contain a detectable residue, five different pesticides were detected that ranged in concentration from 0.02mg/kg to 0.1mg/kg. These results confirm data from previous years that indicate a lower incidence of pesticide residues in processed as opposed to raw fruit/vegetables and that the residues found are at very low levels.

The results are presented in Tables 12 and 13 on the next page.

Table 1: Fruit and vegetables analysed for their pesticide residue content in 2006

Commodity	Number of samples analysed	Number of Domestic Samples	Number of Imported Samples	Residues >MRL	Residues ≤ MRL	Residues ND
APPLE	84	1	83	1	61	22
APPLE JUICE	10	0	10	0	2	8
APRICOT	2	0	2	0	0	2
APRICOT – IN CAN	2	0	2	0	0	2
AUBERGINE	14	0	14	0	3	11
AVOCADO	7	0	7	0	5	2
BANANA	18	0	18	0	10	8
BLACKBERRY	4	0	4	0	3	1
BLACKCURRANT JUICE	3	0	3	0	0	3
BLUEBERRY	4	0	4	1	1	2
BLUEBERRY JUICE	1	0	1	0	0	1
BROCCOLI	7	1	6	0	4	3
BRUSSELS SPROUT	1	1	0	0	0	1
CABBAGE	4	2	2	0	2	2
CARROT	42	14	28	1	20	21
CARROT JUICE	2	0	2	0	0	2
CAULIFLOWER	16	9	7	0	4	12
CELERY	28	8	20	1	7	20
CHERRY	4	0	4	0	2	2
CHILLI PEPPER	1	0	1	0	1	0
CHINESE CABBAGE	1	0	1	0	0	1
CHINESE LEAVES	2	1	1	0	1	1
CLEMENTINE	17	0	17	0	16	1
COURGETTE	12	1	11	1	2	9
CRANBERRY	1	0	1	0	1	0
CRANBERRY JUICE	7	0	7	0	0	7
CUCUMBER	7	1	6	0	4	3
DATE	1	0	1	0	0	1
ENDIVE	7	1	6	0	5	2
GINGER	2	0	2	0	0	2
GRAPE JUICE	2	0	2	0	0	2
GRAPE TABLE	21	0	21	0	12	9
GRAPEFRUIT	12	0	12	0	9	3
GRAPEFRUIT JUICE	2	0	2	0	0	2
GRAPEFRUIT (proc, cans)	4		4	0	0	4
KIWANO	1	0	1	0	0	1
KIWI	15	0	15	1	4	10
KUMQUAT	1	0	1	0	0	1
LEMON	10	0	10	0	10	0
LETTUCE	59	29	30	4	31	24
LIME	1	0	1	0	1	0
LITCHI	1	0	1	1	0	0
MANDARIN	17	0	17	3	14	0
MANDARIN (proc, cans)	3	0	3	0	0	3
MANGO	12	0	12	1	8	3
MANGETOUT	3	1	2	0	1	2
MELON	6	0	6	0	1	5
MUSHROOM	11	10	1	0	4	7

Commodity	Number of samples analysed	Number of Domestic Samples	Number of Imported Samples	Residues >MRL	Residues ≤MRL	Residues ND
NECTARINE	16	0	16	0	11	5
ONION	3	2	1	0	2	1
ORANGE	49	0	49	2	42	5
ORANGE JUICE	14	0	14	0	1	13
PAPAYA	3	0	3	0	3	0
PARSLEY	1	1	0	0	0	1
PARSNIP	13	12	1	1	10	2
PASSION FRUIT	3	0	3	0	0	3
PEA –(POD) (proc, cans)	11	11	0	0	0	11
PEA WITHOUT POD	17	10	7	0	5	12
PEACH	11	0	11	2	5	4
PEACH, (proc, cans)	6	0	6	0	0	6
PEAR	44	0	44	0	33	11
PEAR, (proc, cans)	2	0	2	0	1	1
PEPPER	15	2	13	0	5	10
PERSIMMON	1	0	1	0	0	1
PINEAPPLE	7	0	7	1	5	1
PINEAPPLE JUICE	4	0	4	0	0	4
PINEAPPLE, (proc, cans)	5	0	5	0	0	5
PLUM	23	0	23	1	10	12
PLUM, (proc, cans)	1	0	1	0	0	1
POMEGRANATE	2	0	2	1	1	0
POTATO WARE	49	28	21	0	8	41
PRUNE JUICE	1	0	1	0	0	1
RADDICHIO	3	1	2	0	0	3
RAISINS	2	0	2	0	1	1
RAMBUTAN	1	0	1	1	0	0
RASPBERRY	5	1	4	0	2	3
RASPBERRY, (proc, cans)	1	0	1	0	0	1
RED CHARD	1	0	1	0	0	1
RED CURRANT	2	0	2	0	1	1
RHUBARB	2	2	0	0	0	2
ROCKET	3	0	3	0	3	0
SATSUMA	18	0	18	1	16	1
SCAROLE	2	1	1	0	0	2
SHARON FRUIT	3	0	3	0	1	2
SPINACH	6	1	5	1	1	4
SPRING ONION	2	1	1	0	1	1
SQUASH	1	0	1	0	0	1
STRAWBERRY	26	8	18	0	20	6
STRAWBERRY, (proc, cans)	1	0	1	0	0	1
SWEET POTATO	4	0	4	0	0	4
TOMATO	19	0	19	0	7	12
TOMATO JUICE	3	0	3	0	0	3
TURNIP	9	7	2	0	0	9
UGLI FRUIT	1	0	1	0	1	0
WATERCRESS	1	0	1	0	0	1
TOTALS	**909**	**168**	**741**	**26**	**445**	**438**

Table 2.: Pesticide residues detected in fruit and vegetables in 2006

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
1. Fruit.	**1.1 Citrus Fruit**		**1.1.2 Clementine**	
68644	Spain	chlorpyrifos	0.1	2
		dicofol	0.09	2
		malathion	0.08	2
68649	Spain	chlorpyrifos	0.16	2
		thiabendazole	1.83	5
68658	Canary Islands	chlorpyrifos	0.02	2
		malathion	0.03	2
68691	Spain	chlorpyrifos	0.06	2
		dicofol	0.05	2
68701	Morocco	carbendazim	0.09	5
68771	Spain	thiabendazole	2.85	5
		chlorpyrifos	0.13	2
		dicofol	0.06	2
68881	Spain	chlorpyrifos	0.19	2
		thiabendazole	2.08	5
69243	Uruguay	prochloraz	0.12	10
69253	Argentina	chlorpyrifos	0.13	2
		methidathion	0.08	2
		prochloraz	1.14	10
		malathion	0.06	2
		thiabendazole	3.01	5
69266	S Africa	diphenylamine	0.02	0.05
69356	Argentina	malathion	0.32	2
		prochloraz	1.61	10
		thiabendazole	4.94	5
69442	Chile	dicofol	0.28	2
69484	Chile	thiabendazole	0.59	5
		chlorpyrifos	0.1	2
69639	Spain	malathion	0.28	2
		imazalil	0.46	5
69841	Spain	imazalil	1.68	5
		thiabendazole	2.44	5
		dicofol	0.39	2
		chlorpyrifos	0.15	2
		malathion	0.16	2
69844	Spain	chlorpyrifos	0.09	2
		malathion	0.02	2
			1.1.3 Grapefruit	
68758	Cuba	thiabendazole	0.57	5
		bromopropylate	0.41	2
		chlorpyrifos	0.08	0.3
		malathion	0.05	2
68799	Israel	captan	0.05	0.1
		thiabendazole	1.16	5
69005	Turkey	thiabendazole	0.76	5
		prochloraz	0.02	10
		chlorpyrifos	0.06	0.3
69127	Turkey	thiabendazole	0.91	5
		chlorpyrifos	0.02	0.3
69255	S Africa	methidathion	0.06	2
		azoxystrobin	0.07	1
69307	Turkey	carbofuran	0.04	0.3
		thiabendazole	0.18	5

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
		chlorpyrifos	0.28	0.3
69421	S Africa	methidathion	0.12	2
		malathion	0.03	2
69547	S Africa	pyraclostrobin	0.01	1
		imazalil	1.06	5
69638	Cuba	carbaryl	0.02	1
		imazalil	0.74	5
		thiabendazole	1.94	5
		1.1.4 Lemon		
68707	Spain	captan	0.06	0.1
		chlorpyrifos	0.03	0.2
69140	Spain	carbendazim	0.25	5
		dicofol	0.09	2
69198	Argentina	carbendazim	0.1	5
69237	Spain	methidathion	0.1	2
69262	S Africa	fenpropathrin	0.03	No MRL
		methidathion	0.88	2
69329	S Africa	methidathion	0.1	2
		thiabendazole	0.59	5
69335	S Africa	methidathion	0.12	2
69378	S Africa	methidathion	0.09	2
69554	Argentina	prochloraz	0.38	10
		captan	0.07	0.1
		imazalil	1.6	5
		thiabendazole	0.14	5
69569	S Africa	methidathion	0.59	2
		fenpropathrin	0.04	No MRL
		imazalil	0.33	5
		thiabendazole	0.08	5
		1.1.5 Lime		
68936	Brazil	prochloraz	0.13	10
		1.1.6 Mandarin		
68713	Cyprus	bromopropylate	0.55	2
		chlorpyrifos	0.03	2
		thiabendazole	0.55	5
68840	Cyprus	thiabendazole	2.88	5
68843	Cyprus	**thiabendazole**	**6.13**	**5**
		bromopropylate	0.32	2
		chlorpyrifos	0.03	2
		methidathion	0.04	2
68864	Cyprus	thiabendazole	2.65	5
		captan	0.03	0.1
68872	Spain	cyprodinil	0.07	No MRL
		chlorpyrifos	0.04	2
		malathion	0.04	2
68925	Spain	chlorpyrifos	0.05	2
		iprodione	0.03	2
		methidathion	0.14	2
68932	Spain	chlorpyrifos	0.19	2
		dicofol	0.03	2
68938	Spain	pirimiphos-me	0.02	2
69000	Cyprus	thiabendazole	2.28	5
		bromopropylate	0.47	2
69303	Uruguay	prochloraz	0.34	10

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
69355	Peru	methidathion	0.02	2
		thiabendazole	0.12	5
69415	Peru	**procymidone**	**0.03**	**0.02**
		propargite	0.12	No MRL
		thiabendazole	1.47	5
		prochloraz	1.27	10
69458	Peru	thiabendazole	0.22	5
		methidathion	0.03	2
		propargite	0.06	No MRL
69485	Peru	thiabendazole	0.57	5
69488	Peru	prochloraz	0.57	10
		thiabendazole	2.97	5
		chlorpyrifos	0.03	2
		malathion	0.03	2
69548	Argentina	carbendazim	0.09	0.1
		imazalil	0.29	5
		thiabendazole	1.67	5
		prochloraz	0.26	10
69574	Peru	**procymidone**	**0.07**	**0.02**
		chlorpyrifos	0.03	2
		imazalil	1.51	5
		thiabendazole	0.77	5
		1.1.9 Orange		
68657	Egypt	thiabendazole	0.63	5
		iprodione	**0.03**	**0.02**
		cypermethrin	0.06	2
		folpet	0.06	0.1
68674	Greece	folpet	0.03	0.1
68678	Spain	chlorpyrifos	0.05	0.3
		folpet	0.05	0.1
		malathion	0.02	2
68700	Morocco	chlorpyrifos	0.24	0.3
68706	Israel	bromopropylate	0.3	2
		thiabendazole	1.48	5
68749	Spain	dicofol	0.12	2
		chlorpyrifos	0.08	0.3
68750	Spain	chlorpyrifos	0.04	0.3
		malathion	0.05	2
68757	Egypt	thiabendazole	0.84	5
68796	Morocco	carbendazim	0.08	5
		chlorpyrifos	0.18	0.3
68797	Egypt	thiabendazole	0.24	5
68798	Egypt	malathion	0.19	2
68818	Morocco	carbendazim	0.06	5
		methidathion	0.1	2
		captan	0.07	0.1
68842	Egypt	thiabendazole	1.23	5
		malathion	0.03	2
		cypermethrin	0.06	2
68865	Morocco	chlorpyrifos	0.12	0.3
68882	Egypt	thiabendazole	1.29	5
68890	Israel	folpet	0.04	0.1
		methidathion	0.33	2
		bromopropylate	0.05	2
		thiabendazole	0.97	5
68927	Spain	thiabendazole	0.1	5
		chlorpyrifos	0.03	0.3

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
68975	Spain	chlorpyrifos	0.04	0.3
		malathion	0.04	2
68996	Egypt	thiabendazole	1.01	5
69125	Morocco	thiabendazole	0.69	5
		prochloraz	0.02	10
69135	Spain	thiabendazole	0.92	5
69142	Egypt	thiabendazole	1.25	5
		lambda cyhalothrin	0.03	0.1
69218	Morocco	chlorpyrifos	0.19	0.3
		carbendazim	0.1	5
69227	Spain	thiabendazole	0.72	5
		malathion	0.07	2
69233	Swaziland	thiabendazole	0.05	5
69245	S Africa	captan	0.02	0.1
69294	Morocco	chlorpyrifos	0.04	0.3
		carbendazim	0.07	5
69304	Spain	thiabendazole	1.13	5
		chlorpyrifos	0.04	0.3
		fenthion	0.04	No MRL
69305	Spain	**thiabendazole**	**6.92**	**5**
		chlorpyrifos	0.09	0.3
69332	S Africa	prochloraz	0.06	10
69437	Argentina	prochloraz	0.06	10
		thiabendazole	2.17	5
69492	S Africa	imazalil	0.59	5
		pyraclostrobin	0.02	1
		propargite	0.09	No MRL
69553	Argentina	prochloraz	1.09	10
		chlorpyrifos	0.11	0.3
		captan	0.09	0.1
		imazalil	1.68	5
		pyraclostrobin	0.02	1
69555	S Africa	imazalil	1.76	5
69562	S Africa	imazalil	0.67	5
69570	Senegal	imazalil	0.16	5
69586	Swaziland	methidathion	0.04	2
		imazalil	0.28	5
69597	S Africa	imazalil	0.8	5
		thiabendazole	0.38	5
69636	S Africa	methidathion	0.04	2
		folpet	0.05	0.1
		imazalil	1.06	5
69637	S Africa	imazalil	0.71	5
		thiabendazole	0.19	5
69655	Uruguay	malathion	0.02	2
69816	Spain	imazalil	1.07	5
69839	S Africa	imazalil	0.49	5
69971	Spain	chlorpyrifos	0.05	0.3
		phosmet	0.09	No MRL
			1.1.10 Satsuma	
68710	Turkey	prochloraz	0.06	10
68956	S Africa	methidathion	0.07	2
		thiabendazole	0.17	5
68970	Argentina	carbendazim	0.82	5
		thiabendazole	0.34	5
		malathion	1.42	2
		prochloraz	0.94	10

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
68997	Argentina	thiabendazole	2.53	5
		chlorpyrifos	0.06	2
		malathion	0.21	2
		prochloraz	1.23	10
69116	S Africa	thiabendazole	0.63	5
69124	Peru	thiabendazole	2.06	5
		procymidone	**0.09**	**0.02**
		propargite	0.03	No MRL
		prochloraz	1.21	10
69160	Peru	thiabendazole	1.93	5
		prochloraz	0.37	10
		cyprodinil	0.25	No MRL
		propargite	0.05	No MRL
69169	Argentina	malathion	0.16	2
		thiabendazole	3.7	5
		prochloraz	0.27	10
69217	Peru	thiabendazole	0.76	5
69226	S Africa	thiabendazole	0.08	5
		methidathion	0.06	2
69228	New Zealand	thiabendazole	1.77	5
		propargite	0.04	No MRL
		prochloraz	1.01	10
69254	Peru	thiabendazole	0.32	5
69302	Peru	propargite	0.03	No MRL
		thiabendazole	1.61	5
		prochloraz	0.59	10
69571	Spain	chlorpyrifos	0.17	2
		malathion	0.12	2
		fenthion	0.05	No MRL
		imazalil	0.17	5
		fenthion sulfone	0.02	No MRL
		fenthion sulfoxide	0.02	No MRL
69593	Spain	chlorpyrifos	0.09	2
		malathion	0.09	2
		imazalil	0.2	5
69598	Spain	chlorpyrifos	0.09	2
		imazalil	0.25	5
		thiabendazole	0.15	5
69847	Spain	chlorpyrifos	0.05	2
			1.1.11 Ugli Fruit	
68690	Jamaica	thiabendazole	0.32	5
	1.3 Pome Fruit		**1.3.1 Apple**	
68645	France	diphenylamine	0.22	5
		carbendazim	0.06	2
		thiabendazole	0.4	5
68646	Italy	chlorpyrifos	0.02	0.5
68650	France	diphenylamine	0.02	5
		propargite	0.28	No MRL
		carbendazim	0.06	2
68662	China	carbendazim	0.08	2
68665	France	thiabendazole	0.4	5
		tolyfluanid	0.04	No MRL
		diphenylamine	0.29	5
		propargite	0.56	No MRL
68675	France	propargite	0.05	No MRL
68680	Holland	tolyfluanid	0.09	No MRL

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
		captan	0.24	3
		pirimicarb	0.05	No MRL
68751	France	thiabendazole	0.83	5
		diphenylamine	1.4	5
		propargite	0.39	No MRL
68764	Italy	captan	0.02	3
68765	France	thiabendazole	0.77	5
		diphenylamine	4	5
68822	France	carbendazim	0.22	2
		thiabendazole	1.34	5
		chlorpyrifos	0.02	0.5
		propargite	0.18	No MRL
		diphenylamine	0.6	5
68823	France	pyrimethanil	0.04	No MRL
		captan	0.02	3
68836	France	thiabendazole	0.71	5
		diphenylamine	0.4	5
		propargite	0.39	No MRL
68838	France	thiabendazole	0.56	5
		diphenylamine	0.14	5
		propargite	0.02	No MRL
68839	France	thiabendazole	1.02	5
		diphenylamine	0.24	5
		propargite	0.08	No MRL
		chlorpyrifos	0.03	0.5
		fenitrothion	0.03	0.5
68849	Holland	tolyfluanid	0.09	No MRL
		captan	0.03	3
		carbendazim	0.36	2
68859	Israel	thiabendazole	1.56	5
		diphenylamine	2.31	5
		chlorpyrifos	0.05	0.5
68867	Egypt	propargite	0.66	No MRL
		diphenylamine	0.73	5
		thiabendazole	0.48	5
68883	France	propargite	0.24	No MRL
		diphenylamine	0.37	5
		thiabendazole	0.62	5
68884	France	diphenylamine	1.31	5
		thiabendazole	0.47	5
68887	Spain	folpet	0.12	3
		diphenylamine	0.06	5
68897	Portugal	phosalone	0.63	2
		folpet	0.02	3
		diphenylamine	0.63	5
		bitertanol	0.49	2
68899	France	diphenylamine	0.04	5
		thiabendazole	0.23	5
68923	Brazil	cyprodinil	0.02	No MRL
		chlorpyrifos	0.02	0.5
		folpet	0.03	3
68926	New Zealand	captan	0.03	3
68939	France	propargite	1.27	No MRL
		diphenylamine	0.03	5
68941	Italy	propargite	0.1	No MRL
		diphenylamine	2.6	5
		chlorpropham	0.03	0.05
		vinclozolin	0.11	1
		thiabendazole	2.04	5

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
68945	Italy	diphenylamine	1.03	5
68946	Chile	chlorpyrifos	0.03	0.5
		azinphos-me	0.06	0.5
		thiabendazole	0.31	5
68947	France	diphenylamine	0.84	5
		propargite	0.24	No MRL
		carbendazim	0.17	2
68973	Chile	thiabendazole	0.27	5
		diphenylamine	0.03	5
		carbaryl	0.42	3
		dicofol	**0.16**	**0.02**
68974	Argentina	thiabendazole	1.65	5
		captan	0.47	3
		carbaryl	0.42	3
68999	France	carbendazim	0.07	2
		thiabendazole	0.28	5
		diphenylamine	0.9	5
		phosalone	0.02	2
69115	Chile	thiabendazole	0.13	5
		diphenylamine	0.94	5
		carbaryl	0.65	3
69129	France	thiabendazole	1.89	5
		diphenylamine	0.87	5
69130	Chile	thiabendazole	0.74	5
69133	Italy	captan	0.02	3
		diphenylamine	0.53	5
69139	United Kingdom	carbendazim	0.15	2
		diphenylamine	0.52	5
		metalaxyl	0.04	1
69145	France	diphenylamine	0.61	5
		thiabendazole	0.44	5
69162	S Africa	captan	0.03	3
69163	France	chlorpyrifos	0.02	0.5
69168	Chile	carbaryl	0.19	3
		thiabendazole	1.71	5
69194	Chile	thiabendazole	0.3	5
		carbendazim	0.07	2
		diphenylamine	1.11	5
69220	Chile	thiabendazole	0.05	5
		azinphos-me	0.14	0.5
		diphenylamine	0.04	5
		carbaryl	0.2	3
69241	Chile	thiabendazole	0.09	5
		diphenylamine	0.02	5
		carbaryl	0.07	3
69258	S Africa	azinphos-me	0.03	0.5
		diphenylamine	0.09	5
		bifenthrin	0.02	0.3
69270	Ireland	carbendazim	0.22	2
		diphenylamine	0.25	5
		metalaxyl	0.03	1
69337	France	propargite	0.03	No MRL
69338	Chile	thiabendazole	0.32	5
69348	Brazil	folpet	0.03	3
		carbaryl	0.34	3
69417	New Zealand	diphenylamine	0.24	5
69481	France	chlorpyrifos	0.02	0.5
		azinphos-me	0.07	0.5
69482	France	captan	0.02	3

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
		propargite	0.2	No MRL
69490	United Kingdom	carbendazim	1.12	2
		diphenylamine	0.03	5
69546	S Africa	diphenylamine	0.7	5
69552	Portugal	chlorpyrifos	0.35	0.5
		phosalone	0.24	2
		captan	0.41	3
69566	France	propargite	0.59	No MRL
69572	France	captan	0.06	3
		thiabendazole	0.2	5
69573	Holland	captan	0.11	3
69584	Holland	pirimicarb	0.15	No MRL
		tolyfluanid	0.05	No MRL
		captan	0.07	3
		carbendazim	0.09	0.2
69596	Italy	chlorpyrifos	0.04	0.5
69600	Australia	iprodione	0.85	10
		diphenylamine	0.68	5
		carbendazim	0.02	0.2
69640	Belgium	captan	0.03	3
		pirimicarb	0.03	No MRL
		carbendazim	0.02	0.2
		thiabendazole	0.06	5
		1.3.2 Pear		
68648	Portugal	folpet	1.49	3
		diphenylamine	0.9	10
		phosmet	0.07	No MRL
68653	Portugal	diphenylamine	0.57	10
		folpet	0.03	3
		captan	0.06	3
		phosmet	0.46	No MRL
		malathion	0.03	0.5
68659	Belgium	tolyfluanid	0.09	No MRL
68663	Portugal	malathion	0.03	0.5
		tebuconazole	0.04	No MRL
		captan	0.04	3
		diphenylamine	0.74	10
68681	Portugal	chlorpyrifos	0.05	0.5
		captan	0.05	3
		folpet	0.21	3
		phosmet	0.11	No MRL
		diphenylamine	0.79	10
68685	Portugal	diphenylamine	0.35	10
		folpet	0.04	3
		captan	0.02	3
		phosmet	0.07	No MRL
		procymidone	0.03	1
		tebuconazole	0.02	No MRL
68702	Belgium	captan	0.08	3
		carbendazim	0.28	2
68709	Holland	captan	0.41	3
		tolyfluanid	0.44	No MRL
		carbendazim	0.42	2
68753	Portugal	diphenylamine	0.89	10
		captan	0.11	3
68756	Holland	carbendazim	0.3	2
		bitertanol	0.03	2

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
		tolyfluanid	0.07	No MRL
68802	Portugal	diphenylamine	1.94	10
		thiabendazole	0.1	5
		captan	0.04	3
		phosmet	0.05	No MRL
68824	Spain	diphenylamine	0.26	10
68850	Holland	tolyfluanid	0.12	No MRL
		captan	0.05	3
		carbendazim	0.28	2
68868	Portugal	folpet	0.53	3
		phosmet	0.03	No MRL
		diphenylamine	1.2	10
68929	Chile	carbaryl	0.09	3
		thiabendazole	0.39	5
		diphenylamine	0.11	10
68943	S Africa	diphenylamine	0.02	10
68958	S Africa	azinphos-me	0.07	0.5
68972	S Africa	azinphos-me	0.09	0.5
69114	Argentina	carbaryl	0.09	3
		captan	0.28	3
69159	Australia	carbendazim	0.21	2
		tolyfluanid	0.06	No MRL
69165	S Africa	azinphos-me	0.11	0.5
69212	S Africa	diphenylamine	0.53	10
		pyrimethanil	0.05	No MRL
		iprodione	0.23	10
69232	Holland	carbendazim	0.14	2
		tolyfluanid	0.14	No MRL
69259	S Africa	azinphos-me	0.06	0.5
		diphenylamine	0.03	10
69420	Portugal	phosmet	0.09	No MRL
		captan	0.06	3
69455	France	maneb group	0.05	3
69479	Portugal	captan	0.08	3
		phosmet	0.05	No MRL
69486	Italy	maneb group	0.07	3
		captan	0.08	3
69491	Portugal	maneb group	0.26	3
		phosmet	0.08	No MRL
		captan	0.1	3
		tebuconazole	0.02	No MRL
69550	Belgium	tolyfluanid	0.08	No MRL
69561	Portugal	captan	0.07	3
		phosmet	0.03	No MRL
69583	France	phosmet	0.02	No MRL
69585	Portugal	captan	0.08	3
	1.4 Stone Fruit.		**1.4.2 Cherry**	
69336	Canada	iprodione	0.02	5
		myclobutanil	0.03	1
69354	Canada	iprodione	0.02	5
			1.4.3 Nectarine	
68767	Canary Islands	tebuconazole	0.31	No MRL
		carbaryl	0.06	3
		azinphos-me	0.08	0.5
		iprodione	1.49	5

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
68885	Chile	iprodione	0.41	5
		carbaryl	0.04	3
69156	Spain	iprodione	0.02	5
69222	Spain	fluvalinate-tau-l	0.02	No MRL
69231	Spain	carbendazim	0.23	1
69265	Spain	captan	0.03	2
69360	France	iprodione	0.85	5
69456	Spain	iprodione	0.13	5
		tebuconazole	0.02	No MRL
69565	Italy	tebuconazole	0.02	No MRL
69576	France	iprodione	2.64	5
69641	USA	phosmet	0.05	No MRL
		propargite	0.84	No MRL
		fenhexamid	0.03	5
		fludioxinil	0.12	No MRL
		1.4.4 Peach		
68769	Chile	carbaryl	0.05	3
68835	Chile	azinphos-me	0.19	0.5
		iprodione	0.07	5
		propiconazole	0.04	0.2
68971	**Israel**	**omethoate**	**0.04**	**0.02**
		dimethoate	**0.02**	**0.02**
69157	Spain	**thiabendazole**	**0.06**	**0.05**
69343	Italy	tebuconazole	0.02	No MRL
69549	Italy	cyprodinil	0.09	No MRL
		fludioxinil	0.02	No MRL
		procymidone	0.02	2
		carbendazim	0.03	0.2
69970	S Africa	iprodione	0.16	5
		1.4.5 Plum		
68703	S Africa	iprodione	2.76	5
68712	S Africa	iprodione	0.4	5
68770	S Africa	iprodione	1.76	5
68898	S Africa	iprodione	3.16	5
68924	Chile	iprodione	2.7	5
68957	S Africa	cypermethrin	0.08	1
		iprodione	0.17	5
68976	Chile	**thiabendazole**	**0.09**	**0.05**
		iprodione	1.3	5
69001	Chile	iprodione	0.5	5
69577	Spain	iprodione	0.06	5
		propargite	0.15	No MRL
69595	Italy	tebuconazole	0.05	No MRL
69967	Italy	tebuconazole	0.05	No MRL
		propargite	0.03	No MRL
	1.5 Berries & Small Fruit		**1.1.5.1 Grapes**	
68841	Chile	captan	0.02	3
68874	Chile	captan	0.32	3
68886	Chile	carbaryl	0.08	3
		cyprodinil	0.22	No MRL
		fludioxinil	0.07	No MRL
68928	Chile	cyprodinil	0.18	No MRL
		captan	0.16	3
		fludioxinil	0.09	No MRL
		iprodione	0.03	10

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
68955	Chile	carbaryl	0.21	3
68969	India	flusilazole	0.06	No MRL
69120	Mexico	myclobutanil	0.03	1
69158	Chile	fludioxinil	0.17	No MRL
		tebuconazole	0.03	No MRL
69240	Egypt	lambda cyhalothrin	0.08	0.2
69298	Egypt	lambda cyhalothrin	0.03	0.2
69382	Spain	metalaxyl	0.04	2
		procymidone	0.03	5
		folpet	0.02	3
69412	Spain	metalaxyl	0.05	2
		procymidone	0.04	5
				1.5.2.1 Strawberry
68654	Palestine	iprodione	0.26	10
		cyprodinil	0.03	No MRL
		fludioxinil	0.02	No MRL
		kresoxim-methyl	0.02	1
68696	Egypt	azoxystrobin	0.18	2
		myclobutanil	0.11	1
68718	Egypt	myclobutanil	0.03	1
		azoxystrobin	0.07	2
		cyprodinil	0.27	No MRL
		fludioxinil	0.29	No MRL
68719	Spain	cyprodinil	0.08	No MRL
	Spain	fludioxinil	0.16	No MRL
	Spain	kresoxim-methyl	0.07	1
68721	Morocco	iprodione	0.28	10
		pyrimethanil	0.06	No MRL
		diclofluanid	0.04	10
		myclobutanil	0.05	1
		carbendazim	0.09	0.1
68805	Spain	fludioxinil	0.03	No MRL
		cyprodinil	0.03	No MRL
68852	Spain	fludioxinil	0.04	No MRL
		kresoxim-methyl	0.02	1
68871	Spain	fludioxinil	0.07	No MRL
		kresoxim-methyl	0.02	1
		chlorothalonil	0.49	3
68880	Spain	pirimicarb	0.03	No MRL
68942	Spain	triadimenol	0.12	0.5
68952	Spain	azoxystrobin	0.08	2
69134	Ireland	myclobutanil	0.29	1
		pyrimethanil	0.13	No MRL
		methiocarb	0.68	No MRL
		iprodione	2.02	10
69184	Ireland	iprodione	0.18	10
		azoxystrobin	0.14	2
69210	Ireland	pyrimethanil	0.8	No MRL
		myclobutanil	0.11	1
		azoxystrobin	0.14	2
69211	Ireland	pyrimethanil	0.07	No MRL
		myclobutanil	0.07	1
		iprodione	0.89	10
69238	Ireland	tolyfluanid	0.13	No MRL
		pirimicarb	0.07	No MRL
69299	Ireland	azoxystrobin	0.69	2
		myclobutanil	0.17	1

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
		pyrimethanil	3.33	No MRL
69328	Holland	pirimicarb	0.05	No MRL
69441	Ireland	tolyfluanid	0.05	No MRL
		iprodione	0.29	10
		bupirimate	0.17	No MRL
		pyrimethanil	0.53	No MRL
		myclobutanil	0.05	1
		azoxystrobin	0.08	2
		carbendazim	0.1	0.1
69568	Ireland	myclobutanil	0.21	1
		azoxystrobin	0.83	2
		bupirimate	0.02	No MRL
		mepanipyrim	0.36	2
		fenhexamid	0.8	5
				1.5.3.1 Blackberry
68716	Mexico	myclobutanil	0.03	1
		captan	0.03	3
69187	Belgium	bifenthrin	0.04	0.3
		endosulfate	0.03	0.05
		fludioxinil	0.03	No MRL
69452	Belgium	bifenthrin	0.06	0.3
			1.5.3.2 Raspberry	
68722	Mexico	pyrimethanil	0.03	No MRL
69186	Ireland	pirimicarb	0.02	No MRL
			1.5.4.2 Blueberry	
68715	Chile	**fenvalerate**	**0.2**	**0.02**
		carbaryl	0.09	1
		captan	0.02	3
68879	Chile	iprodione	0.05	10
		captan	0.02	3
			1.5.4.3 Cranberry	
68720	USA	cyprodinil	0.02	No MRL
		chlorothalonil	0.5	2
				1.5.4.4 Red Currant
68878	Holland	tolyfluanid	0.05	No MRL
		kresoxim-methyl	0.06	1
		captan	1.32	3
	1.6 Miscellaneous Fruit		**1.6.1 Avocado**	
68732	Spain	bromopropylate	0.02	0.05
68935	Peru	thiabendazole	1.88	15
69132	S Africa	prochloraz	0.03	5
69293	S Africa	prochloraz	0.76	5
69341	S Africa	prochloraz	0.02	5
			1.6.2 Banana	
69495	Costa Rica	imazalil	0.13	2
		thiabendazole	0.16	5

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
69496	Panama	imazalil	0.16	2
		thiabendazole	0.24	5
69497	Colombia	thiabendazole	0.14	5
69556	Colombia	imazalil	0.04	2
		thiabendazole	0.15	5
69557	Costa Rica	bifenthrin	0.02	0.1
		imazalil	0.24	2
		thiabendazole	0.22	5
69558	Colombia	imazalil	0.15	2
		thiabendazole	0.06	5
69599	Cameroon	imazalil	0.34	2
69810	Dom Rep	imazalil	1.03	2
69811	Costa Rica	imazalil	0.07	2
		thiabendazole	0.05	5
69812	Costa Rica	bifenthrin	0.04	0.1
		imazalil	0.4	2
		thiabendazole	0.3	5
		1.6.3 Kiwi Fruit		
68684	Italy	cyprodinil	0.02	No MRL
68697	Italy	vinclozolin	0.07	10
		methidathion	**0.04**	**0.02**
68954	Italy	chlorpropham	0.02	0.05
69195	Chile	chlorpyrifos	0.04	2
69340	Chile	deltamethrin	0.05	0.05
		1.6.4 Mango		
68651	Brazil	prochloraz	0.03	5
68731	Peru	prochloraz	0.18	5
68855	Brazil	**azoxystrobin**	**0.1**	**0.05**
68930	Peru	prochloraz	0.14	5
69126	Guatemala	prochloraz	0.03	5
		simazine	0.04	No MRL
69242	USA	thiabendazole	1.69	5
69346	Israel	prochloraz	0.1	5
69414	Brazil	thiabendazole	0.17	5
69453	Israel	prochloraz	0.03	5
		1.6.5 Papaya		
68733	Ivory Coast	prochloraz	0.27	5
69154	Ivory Coast	prochloraz	0.24	5
69229	Brazil	thiabendazole	0.29	10
		1.6.6 Pineapple		
68730	Guatemala	triadimefon	0.22	3
		thiabendazole	**0.54**	**0.05**
		triadimenol	0.22	3
69563	Costa Rica	triadimefon	0.12	3
		triadimenol	0.05	3
69587	Costa Rica	triadimefon	0.06	3
		triadimenol	0.07	3
69594	Costa Rica	triadimefon	0.4	3
		triadimenol	0.17	3
69951	Costa Rica	triadimenol	0.04	3
69985	Costa Rica	triadimefon	0.18	3
		triadimenol	0.09	3

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
				1.6.9 Pomegranate
69224	India	carbendazim	0.06	0.1
69419	Spain	**chlorpyrifos**	**0.07**	**0.05**
		cypermethrin	**0.15**	**0.05**
			1.6.10 Rambutan	
68821	Thailand	**cypermethrin**	**0.09**	**0.05**
				1.6.11 Sharon Fruit
69969	Spain	malathion	0.02	0.5
			1.6.13 Litchi	
69239	Thailand	**chlorpyrifos**	**0.1**	**0.05**
		cypermethrin	0.05	0.05
2. Vegetables	**2.1 Root & Tuber Vegetables**		**2.1.1 Carrot**	
68638	Ireland	trifluralin	0.06	No MRL
		chlorfenvinphos	0.23	0.5
68726	Spain	linuron	0.1	0.2
68759	Spain	linuron	0.04	0.2
68773	Ireland	linuron	0.03	0.2
		chlorfenvinphos	0.05	0.5
68776	Spain	iprodione	0.03	0.3
68786	Ireland	linuron	0.05	0.2
68815	Senegal	chlorothalonil	0.08	1
68826	Spain	linuron	0.02	0.2
68893	Spain	linuron	0.08	0.2
68901	Spain	linuron	0.12	0.2
68933	Israel	tebuconazole	0.03	No MRL
		iprodione	0.05	0.3
68961	Spain	linuron	0.08	0.2
68995	Spain	linuron	0.07	0.2
69105	Spain	linuron	0.12	0.2
69146	Italy	chlorpyrifos	0.03	0.1
69174	Holland	iprodione	0.05	0.3
		tebuconazole	0.02	No MRL
69214	France	linuron	0.05	0.2
		bupirimate	0.04	No MRL
69250	France	linuron	0.03	0.2
69367	Ireland	chlorfenvinphos	0.16	0.5
		trifluralin	0.07	No MRL
69434	Ireland	trifluralin	0.09	No MRL
		chlorfenvinphos	**0.51**	**0.5**
69435	Ireland	trifluralin	0.06	No MRL
			2.1.2 Parsnip	
68669	Ireland	flusilazole	0.02	No MRL
		trifluralin	0.06	No MRL
		linuron	**0.21**	**0.2**
		chlorpyriphos	0.03	0.05
		chlorfenvinphos	0.04	0.5
68673	Ireland	tebuconazole	0.02	No MRL
68692	Ireland	folpet	0.02	0.1
		trifluralin	0.06	No MRL
68779	Ireland	chlorfenvinphos	0.11	0.5

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
68783	Ireland	chlorfenvinphos	0.06	0.5
68788	Ireland	trifluralin	0.08	No MRL
		chlorfenvinphos	0.13	0.5
69370	Ireland	chlorfenvinphos	0.15	0.5
		trifluralin	0.08	No MRL
69428	Ireland	trifluralin	0.21	No MRL
		chlorfenvinphos	0.06	0.5
69439	Ireland	chlorfenvinphos	0.03	0.5
69449	Ireland	trifluralin	0.09	No MRL
		chlorfenvinphos	0.05	0.5
	2.2 Bulb Vegetables		**2.2.1 Onion**	
69425	Ireland	tebuconazole	0.03	No MRL
69755	United Kingdom	chlorpropham	0.13	0.5
				2.2.2 Spring Onion
68981	Ireland	iprodione	0.23	3
		chlorothalonil	0.25	5
	2.3 Fruiting Vegetables		**2.3.1 Solanacea**	**2.3.1.1 Aubergine**
68734	Spain	procymidone	0.06	2
		iprodione	0.02	5
69282	Holland	pirimicarb	0.02	No MRL
69590	Holland	vinclozolin	0.05	3
		procymidone	0.02	2
				2.3.1.2 Chilli Pepper
68819	Gambia	fenarimol	0.03	0.5
				2.3.1.3 Pepper
68639	Spain	endosulfan-2	0.02	1
68677	Spain	procymidone	0.03	2
68763	Spain	iprodione	0.03	5
68810	Spain	procymidone	0.04	2
		iprodione	0.03	5
		pyrimethanil	0.05	No MRL
		cyprodinil	0.03	No MRL
68847	Spain	iprodione	0.03	5
		endosulfate	0.03	1
				2.3.1.4 Tomato
68686	Spain	fludioxinil	0.05	No MRL
		cyprodinil	0.25	No MRL
68736	Italy	procymidone	0.04	2
		cyprodinil	0.02	No MRL
68761	Spain	triadimenol	0.04	0.3
		iprodione	0.03	5
68808	Spain	tebuconazole	0.04	No MRL
		chlorothalonil	0.31	2
		pyrimethanil	0.17	No MRL
		tolyfluanid	0.06	No MRL
		iprodione	0.02	5
68809	Spain	cyprodinil	0.03	No MRL
		tolyfluanid	0.03	No MRL
		procymidone	0.17	2

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
		chlorothalonil	0.09	2
		pyrimethanil	0.02	No MRL
		fludioxinil	0.03	No MRL
		tebuconazole	0.03	No MRL
		triadimenol	0.04	0.3
68948	Spain	procymidone	0.04	2
		iprodione	0.03	5
69236	Holland	iprodione	0.02	5
		2.3.2 Cucurbits (edible peel)	**2.3.1.1 Courgette**	
68640	Spain	**thiabendazole**	**0.06**	**0.05**
		endosulfate	0.02	0.05
68687	Spain	procymidone	0.04	1
68737	Spain	procymidone	0.08	1
		iprodione	0.02	2
		cyprodinil	0.04	No MRL
		fludioxinil	0.04	No MRL
			2.3.1.2 Cucumber	
68708	Spain	procymidone	0.08	1
68723	Spain	pyrimethanil	0.07	No MRL
		fludioxinil	0.02	No MRL
68791	Spain	cyprodinil	0.05	No MRL
		procymidone	0.06	1
		chlorothalonil	0.12	1
		metalaxyl	0.03	0.5
69141	Holland	procymidone	0.05	1
		2.3.3 Cucurbits (inedible peel)		
			2.3.3.2 Melon	
69003	Costa Rica	endosulfate	0.04	0.3
2.4 Brassica Vegetables		**2.4.1 Flowering Brassica**		**2.4.1.1 Broccoli**
68793	Spain	chlorothalonil	0.2	3
68834	Spain	chlorothalonil	0.22	3
		metalaxyl	0.04	0.1
69143	Spain	carbaryl	0.03	1
69147	Italy	carbaryl	0.04	1
				2.4.1.2 Cauliflower
68891	Ireland	folpet	0.02	0.1
69372	Ireland	cyproconazole	0.05	No MRL
		benalaxyl	0.02	0.05
		propiconazole	0.02	0.05
		azoxystrobin	0.09	0.5
		tebuconazole	0.03	No MRL
69381	Ireland	cypermethrin	0.05	0.5
69445	United Kingdom	carbaryl	0.05	1
		2.4.2 Head Brassica		**2.4.2.1 Head Cabbage**

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
68807	Ireland	tebuconazole	0.03	No MRL
68854	Spain	metalaxyl	0.05	1
		cyprodinil	0.03	No MRL
		cypermethrin	0.07	0.5
		2.4.3 Leafy Brassica		**2.4.3.2 Chinese Leaves**
69278	Ireland	deltamethrin	0.07	0.5
2.5 Leaf Vegetables		**2.5.1 Lettuce & Similar**		**2.5.1.1 Endive**
68642	Spain	propyzamide	0.02	1
		folpet	0.18	2
68670	Spain	folpet	0.03	2
68739	Spain	lambda cyhalothrin	0.03	1
		cyprodinil	0.05	No MRL
69284	Ireland	deltamethrin	0.06	0.5
		iprodione	0.05	10
69642	Holland	iprodione	0.02	10
				2.5.1.2 Lettuce
68725	Spain	metalaxyl	0.02	2
		fluvalinate-tau-l	0.12	No MRL
		cyprodinil	0.04	No MRL
68727	Ireland	propyzamide	0.36	1
		omethoate	0.04	0.5
		dimethoate	0.07	0.5
		tolchlofos-me	0.1	No MRL
		iprodione	0.02	10
68746	N Ireland	prochloraz	0.04	5
68748	Holland	vinclozolin	0.06	5
		tolchlofos-me	0.13	No MRL
		tolyfluanid	0.15	No MRL
		iprodione	3.95	10
68760	Ireland	azoxystrobin	1.54	3
		pirimicarb	0.03	No MRL
		tolchlofos-me	0.02	No MRL
		propyzamide	0.2	1
		demeton-s-me-sulfone	**0.16**	**0.05**
		cypermethrin	0.3	2
		iprodione	8.73	10
68792	Ireland	**azoxystrobin**	**3.72**	**3**
		iprodione	0.98	10
		cypermethrin	0.65	2
		tolchlofos-me	0.13	No MRL
68804	Spain	procymidone	3	5
68812	Spain	tolyfluanid	0.09	
		procymidone	0.03	5
		tebuconazole	0.04	No MRL
68813	Ireland	iprodione	0.02	10
		propyzamide	0.04	1
68814	Spain	procymidone	0.05	5
		pyrimethanil	0.02	No MRL
68816	Spain	procymidone	0.06	5
		pyrimethanil	0.04	No MRL
68851	Spain	metalaxyl	0.03	2
68869	Spain	metalaxyl	0.03	2

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
68963	Ireland	tolchlofos-me	0.07	No MRL
		cypermethrin	0.1	2
		propyzamide	0.04	1
		iprodione	0.88	10
68979	Ireland	tolchlofos-me	0.03	No MRL
		iprodione	0.22	10
		pirimicarb	0.03	No MRL
69101	Ireland	propyzamide	0.09	1
		dimethoate	0.03	0.5
		omethoate	0.03	0.5
		iprodione	0.05	10
69161	United Kingdom	pirimicarb	0.22	No MRL
69196	Ireland	iprodione	0.05	10
69275	Ireland	cypermethrin	0.06	2
69276	Ireland	omethoate	0.09	0.5
		dimethoate	0.19	0.5
		propyzamide	0.06	1
		cypermethrin	0.1	2
69289	United Kingdom	lambda cyhalothrin	0.07	1
		pirimicarb	0.05	No MRL
69309	United Kingdom	lambda cyhalothrin	0.03	1
69312	Ireland	propyzamide	0.05	1
		omethoate	0.1	0.5
		dimethoate	0.39	0.5
		cypermethrin	0.07	2
69359	Ireland	iprodione	0.25	10
69364	Ireland	propyzamide	0.25	1
		lambda cyhalothrin	0.17	1
		azoxystrobin	0.07	3
		iprodione	0.04	10
		omethoate	**0.49**	**0.5**
		dimethoate	**3.86**	**0.5**
		cypermethrin	**2.36**	**2**
		malathion	0.64	3
69365	Ireland	cypermethrin	0.18	2
		dimethoate	0.03	0.5
		propyzamide	0.12	1
69374	Holland	omethoate	0.03	0.5
69427	Ireland	iprodione	0.24	10
69440	Ireland	iprodione	0.34	10
69443	Ireland	iprodione	0.02	10
		cypermethrin	0.09	2
		propyzamide	**1.67**	**1**
69475	Ireland	cypermethrin	0.13	2
69591	Ireland	cypermethrin	0.05	2
		pymetrozine	0.33	1
69643	United Kingdom	iprodione	0.08	10
69806	Ireland	cypermethrin	0.31	2
		pymetrozine	0.28	1
69817	Ireland	iprodione	0.26	10
		propyzamide	0.02	1
		demeton-s-me-sulfone	0.04	0.05
		pirimicarb	0.12	No MRL
		pymetrozine	0.14	1

Sample Number	Country of Origin	Pesticide Detected	Residue (mg/kg)	MRL (mg/kg)
		2.5.2 Spinach & Similar		**2.5.2.2 Spinach**
69280	Ireland	metalaxyl	0.03	0.05
		carbendazim	**0.25**	**0.1**
69849	Spain	cypermethrin	0.05	0.5
		2.5.5 Herbs		**2.5.5.2 Rocket**
68689	Spain	procymidone	0.02	0.02
68741	Spain	cyprodinil	0.11	No MRL
69285	United Kingdom	metalaxyl	0.03	2
2.6 Legume Vegetables		**2.6.2 Pea**		**2.6.2.1 Mangetout**
69344	Kenya	omethoate	0.04	1
		dimethoate	0.04	1
				2.6.2.2 Pea (-pod)
69468	Ireland	chlorothalonil	0.04	0.3
69470	Ireland	chlorothalonil	0.06	0.3
69802	Unknown	vinclozolin	0.02	0.3
69803	Unknown	vinclozolin	0.13	0.3
		procymidone	0.02	0.3
69805	Unknown	thiophanate-methyl	0.01	0.1
		vinclozolin	0.14	0.3
2.7 Stem Vegetables		**2.7.1 Celery**		
68724	Spain	pyrimethanil	0.02	No MRL
68794	Spain	chlorothalonil	0.18	10
68967	Spain	**procymidone**	**0.03**	**0.02**
69306	United Kingdom	chlorothalonil	0.08	10
69807	Ireland	chlorothalonil	1.72	10
69808	Ireland	chlorothalonil	0.61	10
69814	Ireland	chlorothalonil	1.29	10
69983	Ireland	chlorothalonil	0.49	10
2.8 Fungii		**2.8.1 Mushroom**		
68695	Ireland	prochloraz	0.04	2
68803	Ireland	prochloraz	0.05	2
69290	Ireland	prochloraz	0.05	2
69426	Ireland	prochloraz	0.03	2
2.11 Potato		**2.11.1 Potato Ware**		
68682	Ireland	oxadixyl	0.02	No MRL
68828	Ireland	chlorpropham	0.98	10
68829	Ireland	chlorpropham	0.58	10
68953	France	chlorpropham	4.59	10
69104	France	chlorpropham	0.05	10
69369	France	chlorpropham	0.02	10
69980	France	chlorpropham	0.03	10
69981	France	chlorpropham	0.63	10

ii Targeted/Statutory Sampling Programme

Thirteen samples of fruit and vegetables were taken during 2006 as a follow up to MRL exceedances that occurred in 2005 or in response to a Rapid Alert notification. Two of these samples were taken as statutory samples. The results from the analysis of these samples are presented in Table 3 below.

Nine samples were of Irish origin while the remainder were imports from either EU or third countries. Four of the samples contained no detectable residues. One of these samples, sample number 69582, was targeted due to a suspicion of the illegal use of the pesticide, carbendazim, on strawberries. A sample taken from the production unit, not from the market, contained carbendazim which confirmed that an illegal use of a plant protection product had occurred. The premises was inspected and the producer was warned that if further illegal uses of plant protection products were detected in his produce he would be subjected to statutory action.

A statutory sample of lettuce, sample number 69403, that was a follow up on a targetted sample, exceeded an MRL. As a result of this exceedance the lettuce crop and consignment was destroyed.

The policy of targeting samples of fruit and vegetables, found to contain pesticide residues in excess of MRLs in the 2006 sampling programme, will be continued in 2007 and any samples found to be in breach of the regulations will be subjected as appropriate to statutory action.

Table 3:- Pesticide residues detected in targeted samples of fruit and vegetables, 2006

Commodity	Sample number	Follow up to sample number	Country of origin	Residue detected	Residue (mg/kg)	MRL (mg/kg)
Orange	68656	64689	Spain	carbendazim	0.05	5
				thiabendazole	3.09	5
				chlorpyrifos	0.07	0.3
				phosmet	0.06	No MRL
Orange	68766	64856	Spain	thiabendazole	1.39	5
Strawberry*	69564	69441	Ireland	pyraclostrobin	0.121	0.5
				pyrimethanil	2.77	No MRL
				iprodione	0.14	10
Strawberry**	69582	69441	Ireland	pyrimethanil	2.29	No MRL
				myclobutanil	0.41	1
				azoxystrobin	0.38	2
				carbendazim	**2.18**	**0.1**
				azoxystrobin	0.061	2
Strawberry	69614	69441	Ireland	bupirimate	0.021	No MRL
Lettuce	68772	64731	Spain	tebuconazole	0.07	No MRL
				procymidone	0.2	5
				tolyfluanid	0.07	No MRL
				cypermethrin	0.05	2
Lettuce	69100	68760	Ireland	cypermethrin	0.16	2
Lettuce	69403	69364	Ireland	**dimethoate**	**0.86**	**0.5**
				omethoate	**0.14**	**0.5**
				cypermethrin	0.13	2
Lettuce*	68963	64951	Ireland	tolchlofos-me	0.07	No MRL
Spinach	68744	64726	Spain	NONE	0	0
Mushroom	69834	Special investigation	Ireland	NONE	0	0
Mushroom	69835	"	Ireland	NONE	0	0
Potato (ware).	69752	62665	Ireland	NONE	0	0

* = These samples were taken as statutory samples with a view to initiating statutory action against the owner of the products if illegal pesticide residues, in excess of an MRL, were detected.

** = this sample was taken in response to an illegal use of Carbendazim which is not authorised in Ireland for use on Strawberries. The sample was taken from the production unit so the MRL legislation does not apply to the results obtained.

B CEREALS

i Routine Monitoring Programme

In 2006, 52 routine cereal samples (20x wheat grain, 2x wheat flakes, 1x barleyflakes, 20x oat grain, 2x oat flakes, 1x oat bran, 1x pinhead oats and 5x rice grain) of both domestic and imported origin were analysed for residues of 153 pesticides and metabolites (Annex V). Twenty of the samples analysed contained pesticide residues. Five samples of oats contained diazinon residues in excess of an MRL and three contained residues of chlorpropham. Neither of these two pesticides is approved in Ireland for use on oats. A targeted investigation, described below, was put in place to determine the reason for the diazinon residues detected.

Similarly in the case of the chlorpropham a separate investigation was initiated to ascertain why such residues were present in oats.

Dietary risk assessments indicated that the pesticide residues found in the cereal samples did not pose a risk for Irish consumers.

A summary of the analytical results are presented in Tables 4 and 5 below. MRLs are currently in place for 169 different pesticides in cereals, 95 of which are included in the monitoring programme.

Table 4:- Cereal samples (routine) analysed for pesticide residues in 2006

Commodity	No. Samples Analysed	No. Domestic Samples	No. Imported Samples	Residues		
				< MRL	≤ MRL	ND*
Wheat grain	20	9	11	0	7	13
Wheat flakes	2	0	2	0	0	2
Barley flakes	1	0	1	0	0	1
Oat grain	20	20	0	5	6	9
Oat flakes	2	2	0	0	1	1
Oat bran	1	0	1	0	0	1
Pinhead oats	1	1	0	0	1	0
Rice	5	0	5	0	0	5
Totals	**52**	**32**	**20**	**5**	**15**	**32**

* ND = No residue detected.

Table 5:- Pesticide residues detected in cereal samples (routine) in 2006

Sample number	Country of origin	Residue detected	Residue (mg/kg)	MRL (mg/kg)
Cereals.	**1.0 Wheat grain**			
69318	UK	Pirimiphos-me	0.08	5.0
		Malathion	0.54	8
		Bifenthrin	0.07	0.5
69319	UK	Pirimiphos-me	0.42	5.0
69323	France	Chlorpyriphos-me	0.03	3.0
		Malathion	0.34	
		Deltamethrin	0.08	1.0
69539	France	Malathion	0.02	8.0
69542	Ireland	Pirimiphos-me	0.04	8.0
69915	Ireland	Pirimiphos-me	0.05	3.0
69917	Ireland	Pirimiphos-me	0.04	

Sample number	Country of origin	Residue detected	Residue (mg/kg)	MRL (mg/kg)
	3.0 Oat grain			
68579	Ireland	Permethrin	0.02	0.05
68582	Ireland	Permethrin	0.02	0.05
69578	Ireland	chloropropham	0.12	No MRL
69579	Ireland	Chlorpropham	0.05	No MRL
69617	Ireland	Chlorpropham	0.09	No MRL
69866	**Ireland**	**Diazinon**	**0.44**	**0.02**
69875	Ireland	Diazinon	0.02	0.02
69876	**Ireland**	**Diazinon**	**1.22**	**0.02**
69877	**Ireland**	**Diazinon**	**0.51**	**0.02**
69878	**Ireland**	**Diazinon**	**0.04**	**0.02**
69879	**Ireland**	**Diazinon**	**0.49**	**0.02**
	3.2 Oatflakes			
69581	IRELAND	Chlorpropham	0.2	No MRL
	3.3 Pinhead oats			
69580	IRELAND	Chlorpropham	0.09	No MRL

ii Targeted Sampling Programme

In 2005, no MRL exceedances were found in cereals, so no targeted sampling of cereals was factored into the 2006 residue control programme. In 2006, the detection of residues of chlorpropham and diazinon in oats triggered two special investigation programmes as there were no authorised Irish use for these substances on oats. The investigations were tasked with determining the cause and extent of the problem found with a view to implementing the measures necessary to deal with the problem.

The investigation of diazinon residues in the oats did not support the possibility of an illegal use of this pesticide on oats. It indicated a localised contamination of grain quality samples at some point after sampling had taken place and within the grain depot. No diazinon residues were present in the bulk stored grain so there was no associated risk for consumers. A quality assurance programme was put in place, with the company for the remainder of 2007, that confirmed these conclusions.

In the case of the chlorpropham residues detected, investigations at a grain storage depot linked contaminated grain to a particular supplier. The results indicated that some on farm activity, either intentional or accidental had contaminated the grain prior to delivery. As the presence of chlorpropham residues in oat grain and oat product had both trade and cross compliance implications the relevant Divisions within DAFF were notified of the residues found. The results of the special targeted investigation are presented in Table 6 below.

Table 6:- Targetted/Statutory cereal samples analysed for pesticide residues in 2006

Commodity	No. of Samples analysed	No. of Domestic Samples	No. of Imported Samples	Residues >MRL	Residues < MRL or no MRL	Residues ND
Oats	211	211	0	0	48**	163
oat husks	1	1	0	0	0	1
Oats, pin head grain	1	1	0	0	0	1
Oat flakes	2	2	0	0	0	2

**= there was no MRL established for chlorphopham in cereal grain in 2006. Samples were initially analysed to determine the presence or absence of chlorpropham residues. A representative number of samples, from the cohort that were positive for chlorpropham residues were re-analysed and the residue levels present were quantified. The summary table above includes all samples which tested positive. Only those samples whose the chlorpropham residue was quantified are reported underneath.

Targetted cereal samples containing pesticide residues (<u>all samples were oat grain</u>)

Sample Number	Country of Origin	Residue Detected	Residue (mg/kg)	MRL (mg/kg)
69615	IRELAND	chlorpropham	0.13	No MRL
69616	IRELAND	chlorpropham	0.09	No MRL
69618	IRELAND	chlorpropham	0.07	No MRL
69622	IRELAND	chlorpropham	0.03	No MRL
69624	IRELAND	chlorpropham	0.1	No MRL
69625	IRELAND	chlorpropham	0.09	No MRL
69627	IRELAND	chlorpropham	0.06	No MRL
69633	IRELAND	chlorpropham	0.09	No MRL
69634	IRELAND	chlorpropham	0.1	No MRL
69635	IRELAND	chlorpropham	0.23	No MRL
69691	IRELAND	chlorpropham	0.03	No MRL
69714	IRELAND	chlorpropham	0.03	No MRL
69760	IRELAND	chlorpropham	0.61	No MRL
69765	IRELAND	chlorpropham	0.11	No MRL
69777	IRELAND	chlorpropham	0.04	No MRL
69778	IRELAND	chlorpropham	0.05	No MRL
69785	IRELAND	chlorpropham	0.07	No MRL
69787	IRELAND	chlorpropham	0.05	No MRL
69788	IRELAND	chlorpropham	0.07	No MRL
69790	IRELAND	chlorpropham	0.09	No MRL
69791	IRELAND	chlorpropham	0.09	No MRL
69793	IRELAND	chlorpropham	0.11	No MRL

<u>Note</u>: oat grain with sample numbers 69691, 69761, 69762, 69763, 69764, 69766, 69767, 69768, 69769, 69772, 69773, 69774, 69775, 69776, 69780, 69781, 69782, 69783, 69784, 69786, 69789, 69792, 69830, 69831, 69833 all contained detectable residues of chlorpropham but the residue levels were not quantified.

C FOOD OF ANIMAL ORIGIN

The monitoring programme for food of animal origin in 2006, involved the analysis of samples of fresh meat, milk, dairy products, eggs and honey of Irish origin. Samples of bovine meat (114), ovine meat (73), porcine meat (63), poultry meat (23), venison meat (6), equine meat (8) as well as 11 samples of eggs were analysed for residues of 55 pesticides and their metabolites as well as for polychlorinated biphenyl (PCB) congeners [numbers 28, 52, 101, 118, 138, 153 and 180] (Annex VI). 59 samples of dairy produce were analysed for the same suite of compounds (Annex VII) while 10 samples of honey were analysed for 153 pesticides and metabolites (Annex V).

MRLs have been established for 122 pesticides of which 34 were included in the 2006 monitoring programme. PCBs are persistent organochlorine compounds which, in the past, were released into the environment from industrial sources but whose use has since been discontinued. These are included in the residue monitoring programme because of concerns associated with their presence in food and their association with polychlorinated dibenzodioxins.

1 Bovine Meat

i Routine Monitoring Programme

One hundred and fourteen samples of bovine meat were analysed in 2006. Details of the analytical results, where pesticide residues were detected, are presented in Table 7. Overall some 4 samples or 3.5% of the bovine samples analysed contained detectable pesticide residues. Three of the four samples contained DDT (as metabolite ppDDE) and the remaining sample contained a residue of lindane. The residue levels detected for pp-DDE ranged from 0.005 to 0.009mg/kg and are considered to have resulted from background levels in soil as a consequence of former use or from intake of trace levels present in feed. Similarly the residue of lindane at 0.005 mg/kg was also at a trace level and may have arisen from the consumption of a food ingredient containing residues of lindane or exposure to timber products on the farm which was treated with lindane. An MRL was not exceeded for any of the samples analysed and the residues detected were not considered significant from a consumer safety viewpoint. The quantities of the organochlorine pesticides detected and reported are very low and reflect the sensitivity of the analytical methodologies currently used. Residues of PCBs were not detected in any of the beef samples analysed.

Table 7:- Pesticide residues detected in bovine kidney fat in 2006

Sample number	Country of origin	Residue detected	Residue (mg/kg fat)	MRL (mg/kg fat)
67819	Ireland	Lindane	0.005	0.02
67606	Ireland	pp-DDE	0.005	1.0
67631	Ireland	pp-DDE	0.009	1.0
67634	Ireland	pp-DDE	0.007	1.0

ii Targeted Sampling Programme

As there were no violations of pesticide MRLs in bovine samples analysed in the past number of years, targeted sampling of samples of bovine meat was not undertaken in 2006.

2. Ovine Meat

i Routine Monitoring Programme

Seventy three samples of ovine meat were analysed in 2006. Details of the analytical results of samples found to contain pesticide residues are presented in Table 8. Seven samples (9.6%) of samples analysed contained detectable residues, each of the samples containing a single pesticide. Residues of DDT (as pp-DDE), dicofol, dieldrin and diazinon were detected. MRLs have been established for each of these compounds in ovine meat. The residues of pp-DDE and of dieldrin detected were at low levels, all less than 0.04 mg/kg, and are considered to result from the former use of these pesticides. The residues probably reflect the ingestion of trace contamination levels of these compounds from soil or as trace contaminants in feed.

In the case of dicofol, the residues are likely to be present due to the consumption of some food ingredient containing dicofol residues. In the past residues of dicofol were found in citrus pulp which may be included in animal feed and is a possible route for the transfer of these residues into animal products. Residues of diazinon were at a higher level of 0.024 and 2.0 mg/kg which in one case resulted in an MRL exceedance. Diazinon was authorised for use as a sheep dip in 2006 and where residues occur in excess of an MRL it suggests that either the withholding period was not observed or the concentration of dip solution was higher than recommended on the label. The residues were not considered to be significant from a consumer safety viewpoint.

Table 8:- Pesticide residues detected in ovine kidney fat in 2006

Sample number	Country of Origin	Residue Detected	Residue (mg/kg fat)	MRL (mg/kg fat)
67552	Ireland	pp-DDE	0.02	1
67553	Ireland	Dieldrin	0.04	0.2
67556	Ireland	Dicofol	0.01	0.05
67564	Ireland	pp-DDE	0.007	1.0
67593	Ireland	pp-DDE	0.034	1.0
67712	**Ireland**	**Diazinon**	**2.0**	**0.7**
67839	Ireland	Diazinon	0.24	0.7

ii Targeted Sampling Programme

As there had been no violations of pesticide MRLs in ovine samples over the past number of years, targeted sampling of samples of ovine meat was not undertaken in 2006.

3. Porcine Meat

i Routine Monitoring Programme

Sixty three samples of pork fat were analysed in 2006. Details of the analytical results of samples found to contain pesticide residues are presented in Table 9 below. Three samples (4.8%) were found to contain a detectable pesticide residue which is in contrast to 2003 and 2004 when no detectable residues were found and compares to 2005 where 4.3% of samples contained detectable residues. The results are presented in Table 8 below. An assessment of the residues present indicated that they were not considered to be significant from a consumer safety point of view. The MRL for lindane was exceeded in one sample.

Table 9:- Pesticide residues detected in porcine kidney fat in 2006

Sample number	Country of Origin	Residue Detected	Residue (mg/kg fat)	MRL (mg/kg fat)
67577	Ireland	pp-DDE	0.005	1.0
67592	Ireland	Dicofol	0.008	0.05
67766	**Ireland**	**Lindane**	**0.04**	**0.02**
Targetted samples 2006 containing pesticide residues				
67845	Ireland	Lindane	0.007	0.02
67846	Ireland	Lindane	0.005	0.02

ii Targeted Sampling Programme

There were no violations of pesticide MRLs for porcine samples over the past number of years up to and including 2005 so no samples were targeted for inclusion in the 2006 programme. The detection of a residue of lindane, in excess of the MRL, in one pig sample was investigated to determine the cause of this exceedance. It was considered that the residues in pork, at the levels found, possibly derived from the presence of lindane residues in pig feed or an alternative unknown source.

Twelve samples of pig feed and thirteen samples of pig feed ingredients [soya bean (6x), soya oil (2x), tallow (3x), rapeseed (1x) and protein pea (1x)] from the feed supplier to the pig production unit were analysed. All feed and feed ingredient samples were found to be free of lindane residues.

Two further pigs from the production unit were slaughtered and sub-samples were analysed to determine if lindane residues continued to be present in pigs from the production unit. The results are presented in Table 9 above where both samples are found to contain trace residues of lindane at levels that were less than the MRL. The results indicate that pig feed is not the source of the lindane residues but a source of lindane contamination remains within the pig production unit. As the residue levels were low, did not on repeat exceed an MRL and did not pose a risk to consumers no futher action was taken to resolve the issue.

4. Dairy Products

i Routine Monitoring Programme for 2006

Fifty nine samples of milk were analysed in 2006. None of the samples analysed contained detectable pesticide residues.

ii Targeted Sampling Programme

As there were no violations of pesticide MRLs in milk samples over the past number of years, targeted sampling of dairy produce was not undertaken in 2006.

5. Venison

Six samples of venison were analysed in 2006. No pesticide residues were detected in the samples analysed. No targeted sampling was undertaken as there was no history of pesticide MRL exceedances in previous years.

6. Poultry

Twenty three samples of poultry fat were analysed for pesticide residues. Two samples (8.7%) were found to contain detectable residues of lindane and dieldrin. These residues were at a trace levels, ≤0.01 mg/kg, and did not exceed an MRL for either lindane or dieldrin in poultry meat. Details of the analytical results obtained are presented in Table 10.

Table 10:- Pesticide residues detected in poultry fat in 2006

Sample number	Country of origin	Residue detected	Residue (mg/kg fat)	MRL (mg/kg fat)
67719	Ireland	Lindane	0.01	0.02
		Dieldrin	0.006	0.2
67771	Ireland	Lindane	0.007	0.02

The source of the trace lindane and dieldrin residues is not clear and may be associated with trace residues in poultry feed or may be associated with the use of wood shavings used in the manufacture of poultry litter. Timber is frequently treated with a wood preservative and in the past some wood preservatives contained lindane and dieldrin. The use of old wood, treated at some stage with these preservatives, in the production of poultry litter could give rise to the contamination detected. The residues found in 2006 were extremely low and are not considered to be significant from a consumer safety point of view. No targeted sampling was undertaken as there was no history of pesticide MRL exceedances over previous years. No targeted sampling was undertaken in 2006 as there was no history of pesticide MRL exceedances over previous years.

7. Eggs

Eleven samples of eggs were analysed. None of the samples contained detectable pesticide residues. This is consistent with the results of the 2003, 2004 and 2005 monitoring programmes. No targeted sampling was undertaken in 2006 as there was no history of pesticide MRL exceedances over previous years.

8. Honey

Ten samples of honey were analysed. None of the samples contained detectable pesticide residues. This result is the same as for previous years. No targeted sampling was undertaken in 2006 as there was no history of pesticide MRL exceedances over previous years.

9. Equine Meat

Eight samples of equine fat were analysed in 2006. No pesticide residue was detected in the samples analysed. This was the first year that equine meat was included in the programme and no targeted programme was included.

D MISCELLANEOUS AND COMPLAINT SAMPLES

Three complaint samples [one each of broccoli and potato as well as a brown scone] were received as complaint samples in 2006 and were analysed for the presence of pesticide residues. These samples were submitted by consumers for analysis based on concerns with respect to the quality of these products. The results of these analyses are presented in Table 11. None of the samples submitted contained detectable pesticide residues. Each of the complainants were provided with an official report which detailed the results found.

Table 11: Pesticide residues detected in miscellaneous and complaint samples in 2006.

Sample number	Country of origin	Residue detected	Residue (mg/kg)	MRL (mg/kg)
Complaint samples.				
69199, Broccoli	Unknown	None		
69987, Ware potato	Unknown	None		
69988, Brown scone	Ireland	None		

E ORGANIC PRODUCTS

In 2006, 49 samples of fruit and vegetables, of stated organic origin, were analysed for pesticide residues. Two of these samples were produced in Ireland, thirty one were from other EU countries, while the remaining sixteen were produced in third countries.

Forty one of these samples contained no detectable pesticide residue while eight contained trace pesticide levels, 7 of which were ≤0.05 mg/kg and the eighth was present at 0.26mg/kg. The eight samples, containing pesticide residues were of Italian x2, Spanish x3, Chilean x1, South African x1 and Uruguayan x1 origin. The levels of pesticide residue found were very low and there was no concern in relation to consumer safety. However the pesticide residues found suggest that the production systems in place may not conform with organic production requirements or that the samples were contaminated with trace levels of pesticides. The results of these tests were forwarded to the DAFF officials who regulate organic produce. The list of produce analysed is listed in Table 12 below while those samples containing positive results are presented in Table 13.

Table 12.

Samples of organic produce analysed in 2006.		
Commodity	**Number of samples analysed**	**Countries of origin.**
Orange	5	Italy (2), S. Africa (2) and Uruguay
Apple	4	Italy (2) , Argentina (2).
Pear	4	Argentina (2), Italy (1) and Spain (1).
Peach	1	Italy (1).
Banana	6	Dominican Republic (6).
Kiwi	2	Chile (2)
Mango	1	Mexico (1)
Strawberry	3	Spain (3)
Broccoli	1	Italy
Cauliflower	2	France (1), United Kingdom (1).
Pepper	1	Italy (1)
Courgette	4	Spain (3), Italy (1)
Lettuce	1	Ireland (1).
Tomato	3	Italy (3).
Potato	2	France (1), Germany (1).
Carrot	5	Ireland (1), Italy (3), UK (1).
Celery	3	Spain(3).
Plum	1	Belgium

Table 13.

Samples of organic produce containing pesticide residues.					
Sample no.	**Commodity**	**Country of origin**	**Residue detected.**	**Residue level (mg/kg)**	**MRL (mg/kg)**
69245	Orange	S. Africa	Captan	0.02	0.1
69655	Orange	Uruguay	Malathion	0.02	2.0
68824	Pear	Spain	Diphenylamine	0.26	10
68880	Strawberry	Spain	Pirimicarb	0.03	No MRL
69340	Kiwi	Chile	Deltamethrin	0.05	0.05
69146	Carrot	Italy	Chlorpyriphos	0.03	0.1
68687	Courgette	Spain	Procymidone	0.04	1.0
69147	Broccoli	Italy	Carbaryl	0.04	1.0

F PROCESSED PRODUCTS

In 2006, 92 samples of processed fruit or vegetables [canned apricots 2x, canned grapefruit 4x, canned mandarins 3x, canned peas 11x, canned peaches 6x, canned pears 2x, canned pineapples 5x, canned plums 1x, canned raspberries 1x and canned strawberries 1x], fruit and vegetable juices [apple juice x10, blackcurrant juice 3x, blueberry juice 1x, carrot juice 2x, cranberry juice 7x, grape juice 2x, grapefruit juice 2x, orange juice 14x, pineapple juice 4x, prune juice 1x and tomato juice 3x] and processed cereal products [wheat flakes 2x, barley flakes 1x, oat flakes 2x, oat bran 1x and pinhead oats 1x.] were analysed for their pesticide residue content. Seven samples (7.6% of samples) were found to contain detectable levels of pesticides, as follows orange juice(x1), apple juice(x2), tinned pears, tinned cranberry, oatflakes and pinhead oats. The pesticides detected are authorised, where relevant, for the cultivation of oranges, apples and oats. The residues were at very low levels and did not exceed the MRLs established for the raw commodities from which these processed products were produced. The rate of pesticide detection in the processed products analysed, at 7.6%, is significantly lower than the rate found in the corresponding raw commodities and confirms the similarly low levels of detection indicated in the 2004 and 2005 reports. These results indicate either that fruit and vegetables used for processing may not be treated with plant protection products to the same extent as those which are sold directly to consumers or that the processing of conventionally grown fruit, vegetables and cereals leads to a reduction of the level of pesticide residues present. A combination of these assumptions is likely to apply in that

- fruit/vegetables where the fruit and vegetables used are usually processed quickly and pre/post harvest treatments are not required as the visual appearance of the fruit/vegetables is not particularly important. This tends to minimise the requirement for late pesticide applications to these crops and as a consequence there should be far lower pesticide residues present in the harvested crop. This in turn will mean that there will be less pesticide residues present in the final processed product.

- the processing of fruit, in particular, facilitates the removal of surface residues which contributes to low residue levels in the final product.

- the processing process can break down the pesticide residues present and contribute to a reduction of the residue level in the final product.

The list of processed products analysed in 2006 is presented in Table 14 below while Table 15 lists those products containing detectable pesticide residues.

Table 14

Samples of processed products analysed in 2006.	
Product analysed.	**Number of samples analysed.**
Pineapple juice.	4
Pineapple, tinned.	5
Cranberry juice.	7
Cranberry, tinned.	1
Blackcurrant juice	3
Blueberry juice	1
Grape juice	2
Grapefruit juice.	2
Grapefruit, tinned	4
Mandarin, tinned	3
Pears, tinned	2
Apricot, tinned	2
Peach, tinned	6
Plum, tinned	1
Strawberry, tinned	1
Raspberry, tinned.	1
Orange juice.	14
Carrot juice	2
Tomato juice.	3
Apple juice.	10
Peas, tinned	11
Barley flakes	1
Oat bran	1
Oatflakes	2
Pinhead oats	1
Wheat flakes	2
Total	92

Table 15.

Samples of processed products containing pesticide residues.					
Sample no.	**Commodity**	**Country of origin**	**Residue detected.**	**Residue level (mg/kg)**	**MRL (mg/kg) for raw commodity.**
69610	Orange juice	Unknown	Imazalil	0.02	5.0
68914	Apple juice	Unknown	Carbendazim	0.1	2
68992	Apple juice	Unknown	Thiabendazole	0.09	5
69611	Pear, tinned	Italy	Fenhexamid	0.03	0.05
68720	Cranberry	US	Cyprodinil	0.02	No MRL
69581	Oat flakes	Ireland	Chlorpropham	0.2	No MRL
69580	Pinhead oats	Ireland	Chlorpropham	0.09	No MRL

CONCLUSIONS

A INTRODUCTION

When assessing the impact for consumers of exposure to pesticide residues through diet, it is appropriate to consider the effects of both chronic exposure and acute exposure. For the purposes of assessing the effects of chronic exposure, the level of exposure over a lifetime and the likely effects on health of such exposure must be considered. The techniques for such assessments are well developed and involve consideration of the mean levels of exposure likely in relation to the acceptable daily intake (ADI) values established for individual pesticides. ADI values, which are a measure of the maximum level of intake over a lifetime adjudged to result in no adverse toxicological effects, include a safety factor to ensure that the elderly, infants and children, and those whose systems are under stress because of illness are protected.

For the purposes of assessing the effects of acute exposure, the highest levels of exposure likely (97.5th percentile exposure) over a single day and the effects on health of such exposure are considered. The techniques for such assessments are less well developed than those relating to chronic exposure. For commodities consisting of large sized units (e.g. melons) or medium sized units (e.g. citrus and pome fruit), it is necessary that the variability of residues in individual commodity units be taken into account. This is necessary due to the possibility that when a sample is analysed, i.e. consisting of a minimum of 1 kg of apples, the residue may not be spread evenly across all of the apples present in the sample and the majority of the residue may be located in a single apple. This is considered to be a worst case situation. A variability factor "v" is applied to the maximum residue value determined in composite samples to take account of the worst possible situation which may be encountered[9]. At present there is no agreement between the EU and the CODEX Alimentarius with respect to the variability factor to be applied in that the CODEX have agreed in 2006 that the variability figure to be used internationally should be 3x whereas the EU harmonised position during these discussions was 5x. In assessing the effects of acute exposure, the level of exposure must be considered in relation to the acute reference dose (ARfD) value established for individual pesticides. ARfD values, that reflect the maximum intake of a pesticide residue over a 24 hour period judged to result in no adverse toxicological effects, include a safety factor to ensure that the elderly, infants and children and those whose systems are under stress because of illness are protected. To date ARfD values have been established for a limited number of pesticides. Procedures are still under development particularly at the FAO/WHO Joint Meeting for Pesticide Residues (JMPR) and at EU level with a view to refining the methodology used to establish ARfD's.

B ROUTINE MONITORING PROGRAMME

Inspection of the monitoring results for 2006, which involved the analysis of some 1328 routine samples, 252 targeted samples, 3 statutory samples and 3 complaint samples, shows that 38% of routine produce samples analysed contained quantifiable pesticide residues. 2.5% of these routine samples contained residues in excess of the statutory MRLs (Table 16). The majority of pesticide residues were detected in fruit and vegetable samples compared to food of animal origin and cereal samples where the rate of detection is much lower. In all commodities analysed the pesticide residue

9 Food consumption and exposure assessment of chemicals. Report of a FAO/WHO consultation, Geneva, Switzerland, 10-14 February 1997, WHO/FSF/FOS/97.5

levels detected were mostly at very low levels. In fruit and vegetables some 906 pesticides were detected at residual levels in the fruit and vegetable samples analysed. 347 (38% of residues detected) of these pesticides were at a concentration < 0.05mg/kg, 141 (16%) were in the concentration range ≥0.05 to < 0.1mg/kg, 137 (15%) were in the concentration range ≥0.1 to < 0.2 mg/kg, 124 (14%) were in the range ≥0.2 to < 0.5 mg/kg and 157 (17%) were present at a concentration level > 0.5 mg/kg. This information is presented in Figure 3 above (page 5). The presence of pesticide residues at such low levels reflects high level of compliance by producers with the recommended agricultural practices for the use of plant protection products and also reflects the sensitivity of the current analytical techniques in use that allows residues at extremely low levels to be detected.

Table 16:- Routine samples containing pesticide residues exceeding Maximum Residue Limits (MRLs) in 2006

Commodity	Sample number	Country of origin	Residue detected	Residue (mg/kg)	MRL (mg/kg)
Kiwi	68697	Italy	Methidathion	0.04	0.02
Lichi	69239	Thialand	Chlorpyriphos	0.1	0.05
Mango	68855	Brazil	Azoxystrobin	0.1	0.05
Pineapple	68730	Guatemala	Thiabendazole	0.54	0.05
Pomegranate	69419	Spain	Chlorpyriphos	0.07	0.05
			Cypermethrin	0.15	0.05
Rambutan	68821	Thialand	Cypermethrin	0.09	0.05
Blueberry	68715	Chile	Fenvalerate	0.2	0.02
Mandarin	68843	Cyprus	Thiabendazole	6.1	5
Mandarin	69415	Peru	Procymidone	0.03	0.02
Mandarin	69574	Peru	Procymidone	0.07	0.02
Orange	68657	Egypt	Iprodione	0.03	0.02
Orange	69305	Spain	Thiabendazole	6.9	5
Satsuma	69124	Peru	Procymidone	0.09	0.02
Courgette	68640	Spain	Thiabendazole	0.06	0.05
Lettuce	68760	Ireland	Demeton-s-me sulphone	0.16	0.05
Lettuce	68792	Ireland	Azoxystrobin	3.72	3.0
Lettuce	69364	Ireland	Omethoate	0.49	0.5
			Dimethoate	3.86	0.5
			Cypermethrin	2.36	2.0
Lettuce	69443	Ireland	Propyzamide	1.67	1.0
Spinach	69280	Ireland	Carbendazim	0.25	0.1
Apple	68973	Chile	Dicofol	0.16	0.02
Carrot	69434	Ireland	Chlorfenvinphos	0.51	0.5
Parsnip	68669	Ireland	Linuron	0.21	0.2
Celery	68967	Spain	Procymidone	0.03	0.02
Peach	68971	Israel	Omethoate	0.04	0.02
			Dimethoate	0.02	0.02
Peach	69157	Spain	Thiabendazole	0.06	0.05
Plum	68976	Chile	Thiabendazole	0.09	0.05

An assessment of the relationship between ADIs and the level of residues present in routine samples, exceeding established MRLs (Table 17), demonstrates the risk to both Irish adult and child consumers from the dietary intake of such residues. The dietary intake figures used for individual commodities are derived from the 1996-1998 Irish University National Alliance (IUNA) dietary survey for Irish adults and the IUNA "National Childrens Food Survey 2005" for Irish children. Dietary intake assessments for Irish children were included from August of 2006. The dietary intake assessment for chronically toxic pesticides was carried out using mean consumption data and by comparing the intake to the ADI. The intake assessment for the acutely toxic pesticides was carried out using the 97.5th percentile intake and by comparing the intake to the ARfD. Through use of such intake figures, all but the most extreme intake figures likely to arise have been taken into account in estimating the dietary impact of these residues for Irish consumers.

In the case of consumers exposed to residues of chronically toxic pesticides their health would only be at risk if their dietary intake exceeded the ADI every day for an extended period of time. Nevertheless, the fact that abuses occur and that residue levels in excess of the MRL continue to be detected, points to the need for the continuation and strengthening of the monitoring and violation investigation programmes. DAFF requires users of plant protection products to observe Good Agricultural Practice when applying them, in order to ensure that unacceptable levels of pesticide residues do not occur in treated food produce.

All 7 Irish growers who had produce on the market that was found to exceed an MRL were each subjected to an official inspection with a view to determining the reason for the MRL breach. These growers were also officially warned that they would be subject to targeted sampling in 2007.

Where an imported product contained a residue in excess of an MRL, the authorities in the country of origin along with the Irish importer were informed of the MRL breach. They were also informed that in 2007 if the same commodity from the same source was encountered on the Irish market it would be targeted for special analysis and if necessary subjected to statutory action.

An evaluation of the monitoring data shows that residue results obtained in 2006 remain comparable to those obtained in previous years. The number of samples of fruit and vegetables containing no detectable pesticide residues decreased from 56% in 2003 to 48% in 2004 and decreased further to 43% in 2005. However in 2006 the % of samples of fruit and vegetables containing no detectable residues increased again to 48.2%. In addition taking into consideration the greater number of pesticides residues being determined in samples, 153 in 2006, 148 in 2005, 118 in 2004 and 89 for the most of 2003, the frequency of residue detection would be expected to increase in line with the increased analytical capacity. The reversal of this trend in 2006 may suggest that fewer pesticides are being applied to cultivated food crops but data from future years will be required to establish if this is a real trend or a normal variation in the residue patterns encountered.

The number of routine samples of food of animal origin analysed in 2003, 2004, 2005 and 2006 were 371, 372, 376 and 367 respectively. In food of animal origin, the number and range of pesticides found in 2006 is consistent with those found in previous years. Two MRL exceedances were detected one in sheep and one in pork.

The MRL exceedance in sheep related to the presence of the ecto-paraciticide diazinon and indicated an improper use of an approved sheep dip.

In the pork fat the MRL was exceeded for lindane. Lindane is not approved for use in Ireland so this incident was investigated. Pig feed and pig feed ingredients, supplied to the production unit, were analysed and found to be free of lindane residues and so were ruled out as a source of this residue. Two further pigs from the production unit were slaughtered and samples analysed to determine if residues remained present at values greater than the MRL. These samples contained trace levels of lindane which were less than the MRL. It was concluded that a low level source of lindane contamination remained within the pig production unit but as the residues had dropped to a value less than the MRL no further action was required to deal with the issue.

An assessment of the dietary intake of lindane from this source indicated that it posed no intake concern for Irish consumers.

In the cereal samples analysed an increase in the number of samples containing pesticide residues in 2006 was recorded compared to 2005 and previous years. In 2005, 17% of samples contained a pesticide residue while in 2006 the incidence of residue detections at 38% has increased significantly over that of previous years. In contrast to previous years, five oat samples, samples used to check the grain quality, were found to contain residues of diazinon in excess of the MRL. An investigation of the source of these diazinon residues indicated that these grain quality samples were likely to have been contaminated at some point within the store. Further samples of oats taken from individual grain silos and stores within the depot concerned indicated the absence of diazinon residues. Samples of processed product from this premised were also free of diazinon residues. An assessment of the dietary impact of these residues indicated that they did not pose an unacceptable risk to the safety of Irish consumers.

A further issue arose in 2006 when residues of chlorpropham were detected in oat grain. Chlorpropham is not authorised in Ireland for use on oats or any other cereals crop. The finding of such residues indicated either an illegal use of chlorpropham or a poor agricultural practice that resulted in the oats becoming contaminated with chlorpropham residues. Investigations linked the contaminated oats to one production area and the results were reported to the relevant DAFF Divisions.

The detection of residues of diazinon and of chlorpropham in oats was seen as unusual and was unlikely to re-occur. If the number of cereal samples containing these residues was removed from the overall 2006 figures then the % of cereal samples containing pesticide residues, at 17.3%, is in line with the levels found in 2005.

Apart from the presence of diazinon and chlorpropham residues in cereals the remaining pesticide residues detected are consistent with those found in previous years.

An evaluation of the dietary impact of the residues found indicates that there was no unacceptable risk to Irish consumers from the residues found.

The pesticide residue pattern in fruit and vegetables from 2006 remains broadly similar to that found in 2005 and previous years. An analysis of the results shows that

- 76 different types of fruit and vegetables were analysed in 2006 as opposed to 71 in 2005, 77 in 2004 and 76 in 2003;

- a marginally lower number of pesticide compounds were detected, 73 in 2006 as opposed to 75 in 2005. This is consistent with the laboratory analysing samples for a similar number of pesticide residues in 2006 and in 2005;

- the percentage of imported produce sampled and analysed in the 2006 monitoring programme at 81.5% was marginally greater than the numbers analysed in the previous three years [77 % in 2005, 72% in 2004 and 76% in 2003];

- the percentage of raw fruit and vegetables containing pesticide residues, in the 2006 routine monitoring programme, at 48%, is lower than in 2005 (56%) and 2004 (52%) but is higher than in 2003 (44%). This may suggest that the application of plant protection products has reduced but monitoring data over the next number of years will determine if this is a real trend or a normal variation that occurs between years.

- the percentage of samples of fruit and vegetables containing pesticide residues greater than the MRL for 2006 at 2.9% is less than the 2005 value of 5.1% and is more consistent with the numbers obtained in both 2004 and in 2003, where values of 3.5% and 3.6% respectively were recorded. It is worth noting that the % of samples of fresh produce that exceed a pesticide MRL, as reported in the EU report for 2004, is 5%, which exceeds the values found above. Some MRL exceedances have arisen from the illegal use of plant protection products on produce grown within the EU whilst in the case of third country produce it may reflect a lack of harmonisation of the MRL legislation, an ignorance of the EU standards in the relevant third countries or plain misuse of the plant protection product used. 15% of the MRL exceedances are for Spanish produce which is similar to the 18% figure for 2005. This does not suggest that there is a particular problem with Spanish produce but reflects the high level of fruit and vegetables being shipped from Spain to Ireland. Of the 178 different Spanish samples analysed in 2006, 2.2% contained pesticide residues in excess of an MRL. This is less than the overall value of MRL exceedences for 2006.

- the frequency at which individual pesticides were detected in fruit and vegetables during 2006 corresponds with the pattern detected in 2005, 2004, 2003 and 2002 in that the most commonly detected pesticides remain thiabendazole, iprodione, chlorpyrifos and captan. Diphenylamine was introduced into the analytical programme in 2005 and the frequency of detection in 2006 at 5.5% of samples (mainly pome fruit) is comparable to the 2005 figure of 7.1% . In the case of carbendazim it is significant that the frequency of residue detection has reduced from 10.4% of samples in 2005 to 3.9% of samples in 2006 and must be associated with a reduction in use of benomyl and carbendazim in plant protection products.

- Forty nine samples of organic fruit and vegetables were included in the 2006 monitoring programme. Eight of these samples contained detectable pesticide residues. This frequency of pesticide residue detection, at 16%, is an increase in the corresponding values found in 2005 and in 2004 when the detection rate was 7.5% and 9% respectively. The positive results were circulated to the relevant section within DAFF responsible for the control of organic produce with a view to the appropriate action being taken. No issue of consumer safety was involved with these residues as they were present at very low levels.

- Ninety two samples of processed food, eighty five of which were processed fruit and vegetables and seven of which were processed cereals were analysed for their pesticide residue content in 2006. This compares to the fifty samples of processed food [forty four processed fruit and vegetable juices and six of processed cereals] analysed in 2005 and the sixty two samples that were analysed in 2004. The 2006 results are similar to those in 2005 and 2004 in that they continue to indicate a lower frequency of pesticide residue detection in processed products than in the raw commodities. Five samples of processed fruit/vegetables and one each of oatflakes and pinhead oats contained detectable pesticide residues. All of the samples contained low pesticide residue levels that varied between 0.02 to 0.2mg/kg. 7.6% of processed samples contained detectable pesticide residues which is a lower frequency than the 14% found to have detectable residues in 2005.

The scope of the pesticide monitoring programme was marginally increased in 2006, in comparison to 2005, when samples were analysed for 153 different pesticide and their metabolites.

For the immediate future, the focus of the PCS will be to further increase the capacity of the laboratory to determine an ever increasing number of pesticide residues in food samples. The impact of the laboratory move from Abbotstown to Backweston in 2005 precluded any method development in 2005 so the analytical capacity in 2006 was similar to 2005 levels. Additional validation work re-commenced in 2006 and will result in a substantial increase in the analytical capacity of the laboratory for 2007 and for future monitoring programmes.

The current plans for the Pesticide Control Laboratory are

i to maintain the number of samples scheduled for analysis in 2007 at approximately 1300;
ii to increase the number of pesticides included in the monitoring programme for 2007 and thereafter;
iii to continue to work at EU level to extend the range of pesticides for which MRLs are established and to ensure that Regulation (EC) No. 396/2005 is enacted as soon as possible.

The PCS of the DAFF and the FSAI will continue to have an ongoing dialogue, as part of the service contract between both organisations, with a view to optimising the annual monitoring programme for pesticide residues in food and assessing the possible risk of such residues for consumers. This programme will continue to take account of the recommendations from the European Commission with respect to the range of crops and pesticides included.

C VIOLATION INVESTIGATION PROGRAMME

Targeted sampling of produce found to be in breach of established MRLs is the prime means of determining whether violations that occur result from the systematic misuse of pesticides or are isolated incidents. The repeated occurrence of excessive residue levels in particular food commodities, which would result in consumer safety being compromised, is clearly unacceptable. The violation investigation programme is geared to eliminate any such abuses. The programme is also designed to ensure that incidents, where MRLs are exceeded, are not repeated.

In 2006, 13 samples of fruit and vegetables, 27 samples of animal feed/pork, 211 samples of cereal grain and 4 samples of cereal products were taken as part of targeted investigation programmes carried out by the Pesticide Control Laboratory.

Where produce is found to contain pesticide residues that exceed an EU MRL it is illegal to market such produce and such produce will, if detected, be subject to penalty under current pesticide residue legislation.

- A sample of Irish lettuce, taken as part of the targeted investigation, contained pesticide residues in excess of statutory MRLs and was removed from the market and destroyed.

- A targeted strawberry sample contained residues of carbendazim which is not authorised for use on strawberries in Ireland. The producer was subject to inspection and warned in relation to the use of an illegal plant protection products. Produce from this producer will be targeted in the 2007 programme to ensure compliance with the legislation.

- The targeted analysis of pig feed and pig feed ingredients indicated that they were not a source of low levels of lindane contamination present in pigs coming from a pig production unit. The analysis of further samples of pigs from that unit indicated that the level of contamination had degraded to background levels so further action was not possible.

- The detection of chlorpropham residues in oats during 2006 was unexpected as this chemical is not authorised for use on any cereal crop and indicated either an unauthorised use or the contamination of the oats at some point during the production or harvesting cycle. An intensive investigation traced contaminated oats to one grower but could not determine if the contamination was accidential or deliberate. Oats will again be monitored in 2007 to check that this issue does not re-occur.

- Residues of diazinon were also found in some oat samples analysed during 2006. An investigation indicated a localised issue within the store where tiny quantities of oats contained diazinon residues. Further sampling and analysis confirmed that diazinon was not present in either processed product or in any other stored grain at this location.

An assessment of the dietary intake for consumers is carried out in all cases where an MRL is exceeded. To date this calculation was carried out for Irish adults only but since the availability of Irish childrens dietary survey information, all risk assessments have included to risk to Irish children since August 2006. All of the assessments carried out, with the exception of one carrot sample, indicated that there was no calculated risk to Irish consumers associated with these MRL exceedances. In the case of one carrot sample, containing chlorfenvinphos residues, the calculated dietary intake indicated an exceedance of both the ADI and the ARfD for Irish children. However when one takes account that the peeling and topping of carrots reduces the exposure by up to 90% it was considered that the real risk to children was minimal. The dietary intake assessments for each MRL exceedances encountered are presented in Table 17 below.

Table 17 :- Relationship between excessive residue levels found and the ADI and ARfD levels for Irish Adults.

Sample Number	Consumer group	Commodity	Country of Origin	Pesticide	MRL (mg/kg)	Residue (mg/kg)	Mean commodity intake. (kg/day)	ADI (mg/kg bw/day)	Intake as % of ADI	97.5 % ile commodity diet (kg/day)	ARfD (mg/kg bw/day) [NR = not required]	Intake as a % of ARfD
67712	adults	Ovine kidney fat	Ireland	Diazinon	0.7	2.03	0.003	0.0002	45	0.0001	0.025	1.1
67766	adults	Porcine Fat	Ireland	Lindane	0.02	0.04	0.003	0.005	0.04	0.009	0.06	0
68640	adults	Courgette	Spain	Thiabendazole	0.05*	0.06	0.01	0.1	0.01	0.38	NR	
68669	adults	Parsnip	Ireland	Linuron	0.2	0.21	0.013	0.003	1.5	0.05	NR	
68697	adults	Kiwi	Italy	Methidathion	0.02*	0.04	0.02	0.001	1.3	0.1	0.01	3.2
68715	adults	Blueberry	Chile	Fenvalerate	0.02*	0.2	0.003	0.02	0.05	0.01	NR	
68730	adults	Pineapple	Guatemala	Thiabendazole	0.05	0.54	0.021	0.1	0.2	0.09	NR	
68760	adults	Lettuce	Ireland	Oxy-dem-S-me	0.02*	0.16	0.006	0.0003	5	0.03	0.005	6.9
68792	adults	Lettuce	Ireland	Azoxystrobin	3	3.72	0.006	0.1	0.4	0.03	NR	
68821	adults	Rambutan	Thailand	Cypermethrin	0.05	0.09	0.003	0.05	0.01		NR	
68843	adults	Mandarin	Cyprus	Thiabendazole	5	6.13	0.039	0.1	4	0.1	NR	
68855	adults	Mango	Brazil	Azoxystrobin	0.05	0.1	0.003	0.1	0.01	0.01	NR	
68967	adults	Celery	Spain	Procymidone	0.02	0.03	0.01	0.025	0.02	0.06	0.035	0.3
68971	adults	Peach	Israel	Dimethoate	0.02*	0.02	0.043	0.002	0.7	0.2	0.03	1
68971	adults	Peach	Israel	Omethoate	0.02*	0.04	0.043	0.0003	9.6	0.2	0.004	14.4
68973	adults	Apple	Chile	Dicofol	0.02*	0.16	0.054	0.002	7.2	0.191	0.1	2.1
68976	adults	Plum	Chile	Thiabendazole	0.05*	0.09	0.01	0.1	0.02	0.187	NR	
69124	adults	Satsuma	Peru	Procymidone	0.02	0.09	0.043	0.025	0.3	0.1	0.035	3.2
69157	adults	Peach	Spain	Thiabendazole	0.05	0.06	0.043	0.1	0.04	0.2	NR	
69239	adults	Litchi	Thialand	Chlorpyriphos	0.05*	0.1	0.004	0.01	0.07	0.006	0.1	0.1
69280	adults	Spinach	Ireland	Carbendazim	0.1*	0.25	0.009	0.02	0.2	0.04	0.02	5.7
69305	adults	Orange	Spain	Thiabendazole	5	6.92	0.078	0.1	9.	0.3	NR	
69364	adults	lettuce	Ireland	Dimethoate	0.5	3.86	0.0016	0.002	5	0.002	0.03	1.3
	adults	lettuce	Ireland	Omethoate	0.5	0.14	0.0016	0.0003	1	0.002	0.004	28.2
	children	lettuce	Ireland	Dimethoate	0.5	3.86	0.0016	0.002	5	0.002	0.03	1.3
	children	lettuce	Ireland	Omethoate	0.5	0.49	0.0016	0.0003	4	0.002	0.004	98
	adult	lettuce	Ireland	Cypermethrin	2	2.36	0.006	0.03	0.8	0.03	NR	
69403	adults	Lettuce	Ireland	Dimethoate	0.5	0.86	0.006	0.002	4	0.03	0.03	6.3
	adults	Lettuce	Ireland	Omethoate	0.5	0.14	0.006	0.0003	5	0.03	0.004	7.6
	children	lettuce	Ireland	Dimethoate	0.5	0.86	0.0005	0.002	22	0.002	0.03	22.9
	children	lettuce	Ireland	Omethoate	0.5	0.14	0.0005	0.0003	23	0.002	0.004	28
69415	adults	Mandarin	Peru	Procymidone	0.02*	0.03	0.0007	0.025	0.09	0.003	0.035	0.8
	children	Mandarin	Peru	Procymidone	0.02*	0.03	0.0034	0.025	0.41	0.01	0.035	2.9
69419	adults	Pomegranate	Spain	Chlorpyrifos	0.05*	0.07	0.003	0.01	0.04	0.0002	0.1	0.1
	adults	Pomegranate	Spain	Cypermethrin	0.05*	0.15	0.003	0.05	0.02	0.0002	0.2	0.1
	children	Pomegranate	Spain	Chlorpyrifos	0.05*	0.07	0.0002	0.01	0.14	0.0007	0.1	0.2
	children	Pomegranate	Spain	Cypermethrin	0.05*	0.15	0.0002	0.05	0.06	0.0007	0.2	0.3
69434	adults	Carrot	Ireland	Chlorfnvinphos	0.5	0.51	0.0004	0.0005	41	0.001	0.01	31
	children	Carrot	Ireland	Chlorfnvinphos	0.5	0.51	0.0018	0.0005	184**	0.005	0.01	125**
69443	adults	Lettuce	Ireland	Propyzamide	1	1.67	0.0001	0.02	0.92	0.002	NR	
	children	Lettuce	Ireland	Propyzamide	1	1.67	0.0005	0.02	4.18	0.002	NR	
69574	adults	Mandarin	Peru	Procymidone	0.02	0.07	0.043	0.025	0.20	0.1	0.035	1.8
	children	Mandarin	Peru	Procymidone	0.02	0.07	0.0034	0.025	0.95	0.01	0.035	1.4
69866	adults	Oats	Ireland	Diazinon	0.02*	0.44	0.0003	0.0002	59	0.001	0.025	1.6

Sample Number	Consumer group	Commodity	Country of Origin	Pesticide	MRL (mg/kg)	Residue (mg/kg)	Mean commodity intake. (kg/day)	ADI (mg/kg bw/day)	Intake as % of ADI	97.5 % ile commodity diet (kg/day)	ARfD (mg/kg bw/day) [NR = not required]	Intake as a % of ARfD
	children	Oats	Ireland	Diazinon	0.02*	0.44	0.0007	0.0002	55	0.002	0.025	4
69876	adult	Oats	Ireland	Diazinon	0.02*	1.22	0.0003	0.0002	165	0.001	0.025	4.5
	children	Oats	Ireland	Diazinon	0.02*	1.22	0.0003	0.0002	153	0.001	0.025	5.7
69877	adult	Oats	Ireland	Diazinon	0.02*	0.51	0.0003	0.0002	69	0.001	0.025	1.9
	children	Oats	Ireland	Diazinon	0.02*	0.51	0.0003	0.0002	64	0.001	0.025	2.4
69878	adult	Oats	Ireland	Diazinon	0.02*	0.04	0.0003	0.0002	5	0.001	0.025	0.1
	children	Oats	Ireland	Diazinon	0.02*	0.04	0.0003	0.0002	5	0.001	0.025	0.2
69879	adult	Oats	Ireland	Diazinon	0.02*	0.49	0.0003	0.0002	66	0.001	0.025	1.8
	children	Oats	Ireland	Diazinon	0.02*	0.49	0.0003	0.0002	61	0.001	0.025	2.3

* = indicates the limit of determination.

** = There is no internationally agreed ARfD established for chlorfenvinphos. The indicative value used in Ireland has been revised to 0.01 mg/kg bw/day a value that is in line with UK and half of the value used in Australia. The EU MRL for chlorfenvinphos in carrots was re-established in 2006 at 0.5 mg/kg. The authorised Irish use of products containing chlorfenvinphos on carrots will cease at the end of 2007.

D CONCLUDING REMARKS

The DAF and the FSAI continue to be committed to the strengthening of the pesticide residue monitoring programmes in food, thereby, insofar as pesticide residues are concerned, ensuring the safety of food for consumers and ensuring the quality of produce offered for sale.

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ANNEX I REGULATIONS FIXING MAXIMUM LEVELS FOR PESTICIDE RESIDUES IN AGRICULTURAL PRODUCE

1 European Communities (Pesticide Residues) (Fruit and Vegetables) Regulations 1989, S.I. No. 105 of 1989

2 European Communities (Pesticide Residues) (Fruit and Vegetables) (Amendment) Regulations 1997, S.I. No. 218 of 1997

3 European Communities (Pesticide Residues) (Fruit and Vegetables) (Amendment) Regulations 1998, S.I. No. 563 of 1998

4 European Communities (Pesticide Residues) (Fruit and Vegetables) (Amendment) Regulations 2002, S.I. No. 526 of 2002

5 European Communities (Pesticide Residues) (Fruit and Vegetables) (Amendment) Regulations 2003, S.I. No. 356 of 2003

6 European Communities (Pesticide Residues) (Fruit and Vegetables) (Amendment) Regulations 2004, S.I. No. 120 of 2004

7 European Communities (Pesticide Residues) (Feeding stuffs) Regulations 1992, S.I. No. 40 of 1992

8 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) Regulations 1999, S.I. No. 179 of 1999

9 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 1999, S.I. No. 458 of 1999

10 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2000, S.I. No. 461 of 2000.

11 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2000, S.I. No. 462 of 2000.

12 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2001, S.I. No. 256 of 2001.

13 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2001, S.I. No. 621 of 2001

14 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2002, S.I. No. 535 of 2002

15 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2003, S.I. No. 271 of 2003

16 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2003, S.I. No. 384 of 2003

17 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2004, S.I. No. 134 of 2004

18 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2004, S.I. No. 231 of 2004

19 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2005, S.I. No. 173 of 2005

20 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2005, S.I. No. 551 of 2005

21 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2005, S.I. No. 696 of 2005

22 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2005, S.I. No. 266 of 2006

23 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2005, S.I. No. 464 of 2006

24 European Communities (Pesticide Residues) (Products of Plant Origin, including Fruit and Vegetables) (Amendment) Regulations 2005, S.I. No. 107 of 2006

25 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) Regulations 1999, S.I. No. 180 of 1999

26 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 1999, S.I. No. 460 of 1999

27 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2000, S.I. No. 460 of 2000

28 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2000, S.I. No. 249 of 2001.

29 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2000, S.I. No. 620 of 2001

30 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2002, S.I. No. 534 of 2002

31 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2003, S.I. No. 270 of 2003

32 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2003, S.I. No. 385 of 2003

33 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2004, S.I. No. 118 of 2004

34 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2004, S.I. No. 239 of 2004

35 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2005, S.I. No. 698 of 2005

36 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2005, S.I. No. 106 of 2006

37 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2005, S.I. No. 259 of 2006

38 European Communities (Pesticide Residues) (Foodstuffs of Animal Origin) (Amendment) Regulations 2005, S.I. No. 489 of 2006

39 European Communities (Pesticide Residues) (Cereals) Regulations 1999, S.I. No. 181 of 1999

40 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 1999, S.I. No. 459 of 1999

41 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2000, S.I. No. 459 of 2000

42 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2001, S.I. No. 250 of 2001.

43 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2001, S.I. No. 622 of 2001

44 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2002, S.I. No. 533 of 2002.

45 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2003, S.I. No. 386 of 2003.

46 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2004, S.I. No. 119 of 2004

47 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2004, S.I. No. 240 of 2004

48 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2005, S.I. No. 552 of 2005

49 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2005, S.I. No. 697 of 2005

50 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2005, S.I. No. 108 of 2006

51 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2005, S.I. No. 260 of 2006

52 European Communities (Pesticide Residues) (Cereals) (Amendment) Regulations 2005, S.I. No. 492 of 2006

53 European Communities (Pesticide Residues) Regulations 2005, S.I. No. 654 of 2006

ANNEX II EC DIRECTIVES FIXING MAXIMUM LEVELS FOR PESTICIDE RESIDUES IN AGRICULTURAL PRODUCE

1 Council Directive of 23 November 1976 relating to the fixing of maximum levels for pesticide residues in and on fruit and vegetables. (76/895/EEC) OJ No. L340 of 9.12.1976,

and amending Directives -

79/700/EEC of 24 July 1979	OJ No. L207 of 15.8.1979
80/428/EEC of 28 March 1980	OJ No. L102 of 19.4.1980
81/36/EEC of 9 February 1981	OJ No. L46 of 19.2.1981
82/528/EEC of 19 July 1982	OJ No. L234 of 9.8.1982
88/298/EEC of 16 May 1988	OJ No. L126 of 20.5.1988
89/186/EEC of 6 March 1989	OJ No. L66 of 10.3.1989
93/58/EEC of 29 June 1993	OJ No. L211 of 23.8.1993
Corrigendum to 93/58/EEC	OJ No. L219 of 24.8.1994
96/32/EC of 21 May 1996	OJ No. L144 of 18.6.1996
97/41/EC of 25 June 1997	OJ No. L184 of 12.7.1997
2000/24/EC of 28 of April 2000	OJ No. L107 of 04.05.2000
2000/42/EC of 22 of June 2000	OJ No. L158 of 30.06.2000
2000/48/EC of 25 of July 2000	OJ No. L197 of 03.08.2000
2000/57/EC of 22 of Sept 2000	OJ No. L244 of 29.09.2000
2000/82/EC of 20 of Dec. 2000	OJ No. L3 of 06.01.2001
2002/66/EC of 16 of July 2002	OJ No. L192 of 20.07.2002
2002/71/EC of 19 of August 2002	OJ No. L225 of 22.08.2002
2002/79/EC of 02 of October 2002	OJ No. L291 of 28.10.2002
2003/60/EC of 18 of June 2003	OJ No. L155 of 24.06.2003
2003/118/EC of 05 of Dec 2003	OJ No. L324 of 11.12.2003
2005/37/EC of 03 of June 2005	OJ No. L141 of 04.06.2005
2005/46/EC of 08 of July 2005	OJ No. L177 of 09.07.2005
2005/70/EC of 20 of Oct 2005	OJ No. L276 of 21.10.2005
2006/59/EC of 28 of Jun 2006	OJ No. L175 of 29.06.2006
2006/62/EC of 12 of July 2006	OJ No. L206 of 27.07.2006
2006/92/EC of 09 of Nov 2006	OJ No. L311 of 10.11.2006

ANNEX II Continued

2 Council Directive of 24 July 1986 on the fixing of maximum levels for pesticide residues in and on cereals. (86/362/EEC) OJ No. 221 of 7.8.1986

and amending Directives -

88/298/EEC of 16 May 1988	OJ No. L126 of 20.5.1988
93/57/EEC of 29 June 1993	OJ No. L211 of 23.8.1993
94/29/EC of 23 June 1994	OJ No. L189 of 23.7.1994
95/39/EC of 17 July 1995	OJ No. L197 of 22.8.1995
Corrigendum to 95/39/EC	OJ No. L164 of 3.7.1996
96/33/EC of 21 May 1996	OJ No. L144 of 18.6.1996
97/41/EC of 25 June 1997	OJ No. L184 of 12.7.1997
97/71/EC of 15 December 1997	OJ No. L347 of 18.12.1997
98/82/EC of 27 October 1998	OJ No. L290 of 29.10.1998
1999/65/EC of 24 June 1999	OJ No. L172 of 8.7.1999
1999/71/EC of 14 July 1999	OJ No. L194 of 27.7.1999
2000/24/EC of 28 of April 2000	OJ No. L107 of 04.05.2000
2000/42/EC of 22 of June 2000	OJ No. L158 of 30.06.2000
2000/48/EC of 25 of July 2000	OJ No. L197 of 03.08.2000
2000/58/EC of 22 of Sept 2000	OJ No. L244 of 29.09.2000
2000/82/EC of 20 of Dec 2000	OJ No. L3 of 06.01.2001
2001/39/EU of 23 of May 2001	OJ No. L148 of 01.05.2001
2001/48/EU of 28 of June 2001	OJ No. L180 of 03.07.2001
2001/57/EU of 25 of July 2001	OJ No. L208 of 01.08.2001
2002/23/EU of 26 of Feb 2002	OJ No. L64 of 07.03.2002
2002/42/EU of 17 of May 2002	OJ No. L134 of 22.05.2002

ANNEX II Continued

2002/66/EU of 16 of July 2002	OJ No. L192 of 20.07.2002
2002/71/EC of 19 of August 2002	OJ No. L225 of 22.08.2002
2002/76/EC of 06 of September 2002	OJ No. L240 of 07.09.2002
2002/79/EC of 02 of October 2002	OJ No. L291 of 28.10.2002
2002/97/EC of 16 of December 2002	OJ No. L343 of 18.12.2002
2003/60/EC of 18 of June 2003	OJ No. L155 of 24.06.2003
2003/62/EC of 20 of June 2003	OJ No. L154 of 21.06.2003
2003/69/EC of 11 of July 2003	OJ No. L175 of 15.07.2003
2003/113/EC of 3 of December 2003	OJ No. L324 of 11.12.2003
2003/118/EC of 5 of December 2003	OJ No. L327 of 16.12.2003
2004/2/EC of 9 of January 2004	OJ No. L014 of 21.01.2004
2004/61/EU of 26 of April 2005	OJ No. L127 of 29.04.2004
2005/46/EU of 08 of July 2005	OJ No. L177 of 09.07.2005
2005/48/EC of 23 of August 2005	OJ No L219 of 24.8.2005
2005/70/EC of 20 of Oct 2005	OJ No. L276 of 21.10.2005
2005/76/EC of 08 of Nov 2005	OJ No. L293 of 09.11.2005
2006/4/EC of 26 of Jan 2006	OJ No. L23 of 27.01.2006
2006/30/EC of 13 of Mar 2006	OJ No. L75 of 14.03.2006
2006/59/EC of 28 of Jun 2006	OJ No. L175 of 29.06.2006
2006/61/EC of 07 of July 2006	OJ No. L206 of 27.07.2006
2006/62/EC of 12 of July 2006	OJ No. L206 of 27.07.2006
2006/92/EC of 09 of Nov 2006	OJ No. L311 of 10.11.2006

3 Council Directive of 24 July 1986 on the fixing of maximum levels for pesticide residues in and on foodstuffs of animal origin. (86/363/EEC) OJ No. L221 of 7.8.1986

and amending Directives -

93/57/EEC of 29 June 1993	OJ No. L211 of 23.8.1993
94/29/EC of 23 June 1994	OJ No. L189 of 23.7.1994
95/39/EC of 17 July 1995	OJ No. L197 of 22.8.1995
Corrigendum of 95/39/EC	OJ No. L164 of 3.7.1996
96/33/EC of 21 May 1996	OJ No. L144 of 18.6.1996
97/41/EC of 25 June 1997	OJ No. L184 of 12.7.1997
97/71/EC of 15 December 1997	OJ No. L347 of 18.12.1997
98/82/EC of 27 October 1998	OJ No. L290 of 29.10.1998
1999/71/EC of 14 July 1999	OJ No. L194 of 27.7.1999
2000/24/EC of 28 of April 2000	OJ No. L107 of 04.05.2000
2000/42/EC of 22 of June 2000	OJ No. L158 of 30.06.2000
2000/58/EC of 22 of Sept 2000	OJ No. L244 of 29.09.2000
2000/82/EC of 20 of Dec 2000	OJ No. L3 of 06.01.2001
2001/39/EU of 23 of May 2001	OJ No. L148 of 01.05.2001
2001/57/EU of 25 of July 2001	OJ No. L208 of 01.08.2001
2002/23/EU of 26 of Feb 2002	OJ No. L64 of 07.03.2002
2002/42/EU of 17 of May 2002	OJ No. L134 of 22.05.2002
2002/66/EU of 16 of July 2002	OJ No. L192 of 20.07.2002
2002/71/EC of 19 of August 2002	OJ No. L225 of 22.08.2002
2002/79/EC of 02 of October 2002	OJ No. L291 of 28.10.2002
2002/97/EC of 16 of December 2002	OJ No. L343 of 18.12.2002
2003/60/EC of 18 of June 2003	OJ No. L155 of 24.06.2003
2003/113/EC of 3 of December 2003	OJ No. L324 of 11.12.2003
2003/118/EC of 5 of December 2003	OJ No. L327 of 16.12.2003
2004/2/EC of 9 of January 2004	OJ No. L014 of 21.01.2004
2004/61/EU of 26 of April 2005	OJ No. L127 of 29.04.2004
2004/95/EU of 24 of Sept 2004	OJ No. L301 of 28.09.2004
2005/46/EU of 08 of July 2005	OJ No. L177 of 09.07.2005
2005/48/EC of 23 of August 2005	OJ No L219 of 24.8.2005
2005/70/EC of 20 of Oct 2005	OJ No. L276 of 21.10.2005
2006/30/EC of 13 of Mar 2006	OJ No. L75 of 14.03.2006
2006/59/EC of 28 of Jun 2006	OJ No. L175 of 29.06.2006
2006/61/EC of 07 of July 2006	OJ No. L206 of 27.07.2006
2006/62/EC of 12 of July 2006	OJ No. L206 of 27.07.2006

4 Council Directive of 27 November 1990 on the fixing of maximum levels for pesticide residues in an on certain products of plant origin, including fruit and vegetables. (90/642/EEC) OJ No. L350 of 14.12.1990

and amending Directives -

93/58/EEC of 29 June 1993	OJ No. L211 of 23.8.1993
Corrigendum to 93/58 EEC	OJ No. L219 of 24.8.1994
94/30/EC of 23 June 1994	OJ No. L189 of 23.7.1994
95/38/EC of 17 July 1995	OJ No. L197 of 22.8.1995
Corrigendum to 95/38/EEC	OJ No. L155 of 28.6.1996
95/61/EC of 29 November 1995	OJ No. L292 of 7.12.1995
96/32/EC of 21 May 1996	OJ No. L144 of 18.6.1996
97/41/EC of 25 June 1997	OJ No. L184 of 12.7.1997
97/71/EC of 15 December 1997	OJ No. L347 of 18.12.1997
98/82/EC of 27 October 1998	OJ No. L290 of 29.10.1998
1999/65/EC of 24 June 1999	OJ No. L172 of 8.7.1999
1999/71/EC of 14 July 1999	OJ No. L194 of 27.7.1999
2000/24/EC of 28 of April 2000	OJ No. L107 of 04.05.2000
2000/42/EC of 22 of June 2000	OJ No. L158 of 30.06.2000
2000/48/EC of 25 of July 2000	OJ No. L197 of 03.08.2000
2000/57/EC of 22 of Sept 2000	OJ No. L244 of 29.09.2000
2000/58/EC of 22 of Sept 2000	OJ No. L244/78 of 29.09.2000
2000/82/EC of 20 of Dec 2000	OJ No. L3/18 of 06.01.2001
2001/35/EU of 11 of May 2001	OJ No. L136 of 18.05.2001
2001/39/EU of 23 of May 2001	OJ No. L148 of 01.05.2001
2001/48/EU of 28 of June 2001	OJ No. L180 of 03.07.2001
2001/57/EU of 25 of July 2001	OJ No. L208 of 01.08.2001
2002/5/EU of 30 of Jan 2002	OJ No. L34 of 05.02.2002
2002/23/EU of 26 of Feb 2002	OJ No. L64 of 07.03.2002
2002/42/EU of 17 of May 2002	OJ No. L134 of 22.05.2002
2002/66/EU of 16 of July 2002	OJ No. L192 of 20.07.2002
2002/71/EC of 19 of August 2002	OJ No. L225 of 22.08.2002
2002/76/EC of 06 of September 2002	OJ No. L240 of 07.09.2002
2002/79/EC of 02 of October 2002	OJ No. L291 of 28.10.2002
2002/97/EC of 16 of December 2002	OJ No. L343 of 18.12.2002
2003/60/EC of 18 of June 2003	OJ No. L155 of 24.06.2003
2003/62/EC of 20 of June 2003	OJ No. L154 of 21.06.2003
2003/69/EC of 11 of July 2003	OJ No. L175 of 15.07.2003
2003/113/EC of 3 of December 2003	OJ No. L324 of 11.12.2003
2003/118/EC of 5 of December 2003	OJ No. L327 of 16.12.2003
2004/2/EC of 9 of January 2004	OJ No. L014 of 21.01.2004
2004/59/EC of 23 of April 2004	OJ No. L120 of 24.04.2004
2004/61/EU of 26 of April 2004	OJ No. L127 of 29.04.2004
2004/95/EU of 24 of September 2004	OJ No. L301 of 28.09.2004

2005/37/EU of 03 of June 2005	OJ No. L141 of 04.06.2005
2005/46/EU of 08 of July 2005	OJ No. L177 of 09.07.2005
2005/48/EC of 23 of August 2005	OJ No L219 of 24.8.2005
2005/70/EC of 20 of Oct 2005	OJ No. L276 of 21.10.2005
2005/74/EC of 25 of Oct 2005	OJ No. L282 of 26.10.2005
2005/76/EC of 08 of Nov 2005	OJ No. L293 of 09.11.2005
2006/4/EC of 26 of Jan 2006	OJ No. L23 of 27.01.2006
2006/9/EC of 23 of Jan 2006	OJ No. L22 of 26.01.2006
2006/30/EC of 13 of Mar 2006	OJ No. L75 of 14.03.2006
2006/53/EC of 07 of Jun 2006	OJ No. L154 of 08.06.2006
2006/59/EC of 28 of Jun 2006	OJ No. L175 of 29.06.2006
2006/60/EC of 07 of July 2006	OJ No. L206 of 27.07.2006
2006/61/EC of 07 of July 2006	OJ No. L206 of 27.07.2006
2006/62/EC of 12 of July 2006	OJ No. L206 of 27.07.2006
2006/92/EC of 09 of Nov 2006	OJ No. L311 of 10.11.2006

5 Council Directive of 4 March 1991, amending Directive 74/63/EEC on undesirable substances and products in animal nutrition. (91/132/EEC) OJ No. L66 of 13.3.1991

ANNEX III GLOSSARY OF TERMS

Acceptable Daily Intake (ADI)

An ADI is an estimate of the amount of a residue in food or drinking water, expressed on a body weight basis, that can be ingested daily over a lifetime without appreciable health risk.

The particular vulnerability of infants, children, the elderly and those whose systems are under stress because of ill-health, are taken into account, through application of a safety factor, when ADI values are established.

ADI values are based on the no-adverse-effect level in the most sensitive animal species used in the toxicological experiments, or if appropriate data are available, in humans. Invariably, a safety factor to account for inter-species and intra-species variations is applied. Studies used as a basis for the identification of the relevant no-adverse-effect levels and hence for deriving ADI values, are conducted using active substance as manufactured. Accordingly the toxicological effects of impurities present in active substances are included in the assessment. Account is also taken of metabolites that may influence the toxicological significance of the residue reaching the consumer.

Acute Reference Dose (ARfD)

An ARfD is similar in nature to an ADI but it relates to intake of residues at one meal or on one day.

The particular vulnerability of infants, children, the elderly and those whose systems are under stress because of ill-health, are taken into account, through application of a safety factor, when ARfD values are established.

ARfD values are based on the no-adverse effect level in the most sensitive animal species used in the toxicological experimentation, or if appropriate data are available, in humans. ARfD values are derived from the results of those toxicological studies that are most relevant to short term exposure.

Good Agricultural Practice (GAP)

GAP in the use of a plant protection product (pesticide) includes authorized use under practical conditions necessary for effective control of harmful organisms. It encompasses a range of levels of application up to the highest level authorized, applied in a manner that leaves a residue that is the smallest amount practicable.

ANNEX III Continued

Lowest Calibrated Level (LCL)	The lowest concentration of a pesticide residue with which the detection system is calibrated for the purposes of determining the presence or absence of measurable residues. It normally also serves to define the reporting limit for individual pesticide residues.
Limit of Determination (LOD)	The LOD is the lowest concentration of a pesticide residue or contaminant that can be identified and quantitatively measured in a specified food, agricultural commodity or animal feed, with an acceptable degree of certainty by a method of analysis.
Matrix Matched Calibration	A system involving use of calibration solutions to ensure that all constituents (other than the analyte) are similar to, or produce the same effect on analytical response as the equivalent solutions generated from the samples to be analyzed. The objectives of matrix-matched calibration are to compensate for analyte response enhancement or suppression effects induced by sample co-extractives and to provide a chromatogram that has underlying interference comparable to that of the sample. Matrix blanks are prepared using solvents, reagents and clean-up procedures similar to those used for analysis of samples to be analyzed. In practice the pesticide is added to a blank extract of a matrix similar to that to be analyzed. The matrix used may differ from that of the samples if it is shown to achieve the stated objectives.
Maximum Residue Limit (MRL)	An MRL is the maximum concentration of a pesticide residue, expressed in milligrams per kilogram, legally permitted in or on food commodities and animal feeds. MRLs are based on supervised residues trials data that reflect Good Agricultural Practice (GAP). MRLs established for particular food commodities are such that potential consumer exposure to residues is judged to be toxicologically acceptable. MRLs are fixed at or about the limit of determination, where there are no approved usess.

ANNEX III Continued

	MRLs are established on the basis of sound scientific knowledge. They are only established for those pesticides for which acceptable daily intake (ADI) values exist.
No-adverse-effect Level	The no-adverse-effect level is the highest level of continual exposure to a chemical that causes no significant adverse effect on morphology, biochemistry, functional capacity, growth, development, or life span of individuals of the target species that may be animal or human.
Pesticide Residue	Any trace of a pesticide found in a sample, including any specified derivatives such as degradation and conversion products, metabolites and impurities, which are considered to be of toxicological significance and are included in the residue definition.

ANNEX IV ANALYTICAL METHODS AND PROCEDURES EMPLOYED FOR THE DETERMINATION OF PESTICIDE RESIDUES IN FOODSTUFFS

The methods of analysis currently used in the pesticide residue laboratory include those described hereunder.

(i) Multi residue method 1, *Analytical Methods for Pesticide Residues in Foodstuffs*, 6th edition, 1996, General Inspectorate for Health Problems, Ministry of Public Health, Welfare and Sport, The Netherlands. The method is used to determine residues of organophosphorous, organochlorine and benzimidazole pesticides in food of plant origin.

Note: A variation of the method is used. The variation involves addition of sodium sulphate at the time of sample extraction to facilitate the extraction of polar organophosphorous pesticides.

(ii) Multi residue method 1, *Analytical Methods for Pesticide Residues in Foodstuffs*, 6th edition, 1996, General Inspectorate for Health Problems, Ministry of Public Health, Welfare and Sport, The Netherlands. The variation of the method uses ethyl acetate as the extraction solvent and is used for the analysis of residues of organophosphorous, organochlorine and benzimidazole pesticides in cereals.

(iii) The Becker method, *A multi residue method for the simultaneous determination of plant protection chemicals in plant material,* Dtsch. Lebensm. Rundsch. 75, 148-152, 1979, using a gel permeation column instead of the silica gel/activated charcoal column specified.

(iv) The method in use for the determination of organochlorine and organophosphorous residues in samples of fat is based on clean-up method number 5 of the German Manual of Pesticide Residue Analysis (Volume 1 of 1987) and involves extraction with a mixture of acetonitrile and acetone, followed by clean-up using gel permeation chromatography column and alumina/silver nitrate micro columns (for organochlorine pesticides only).

The method for the analysis of benzimidazole compounds in use is based on that developed by Hiemstra, M., J.A. Joosten and A. de Kok, J. AOAC Int. 78, 1267 -1274, 1995. A fully automated solid-phase extraction cleanup and an on-line liquid chromatographic system, using an UV detector, is used for the determination of the benzimidazole fungicides carbendazim, benomyl and thiophanate-methyl (determined as carbendazim) and thiabendazole, in fruit and vegetables -

Annex V Pesticides determined in Fruit, Vegetables, Cereals and Honey.

Pesticide Compounds.	LCL* (mg/kg)	Pesticide Compounds	LCL* (mg/kg)	Pesticide Compounds.	LCL* (mg/kg)
acephate	0.05	dicofol	0.05	monocrotophos	0.02
aldrin	0.02	dieldrin	0.02	myclobutanil	0.02
alachlor	0.02	dimethoate	0.02	trans- nonachlor	0.02
atrazine	0.02	diphenylamine	0.02	omethoate	0.02
azinphos-ethyl	0.05	disulfoton	0.02	oxadixyl	0.02
azinphos-methyl	0.05	endrin	0.02	paraoxon	0.02
azoxystrobin	0.05	endosulfan-alpha**	0.02	parathion	0.02
benalaxyl	0.02	endosulfan-beta	0.02	parathion methyl	0.02
α BHC	0.02	endosulfan-sulfate	0.02	paraoxon-methyl	0.02
β BHC	0.02	est-fenvalerate	0.05	penconazole	0.02
σ BHC	0.02	ethion	0.02	pendimethalin	0.02
bifenthrin	0.02	etrimphos	0.02	permethrin **	0.02
binapacryl	0.02	fenarimol	0.02	phosalone	0.02
biphenyl	0.02	fenbuconazole	0.02	phosmet	0.02
bitertanol	0.02	fenchlorphos	0.02	phosphamidon	0.02
bromopropylate	0.02	fenhexamid	0.05	pirimicarb	0.02
bromophos-ethyl	0.02	fenitrothion	0.02	pirimiphos ethyl	0.02
bromophos-methyl	0.02	fenpropathrin	0.02	pirimiphos methyl	0.02
bupirimate	0.02	fenthion	0.02	Prochloraz	0.02
captafol	0.02	fenvalerate	0.02	Procymidone	0.02
carbaryl	0.02	fludioxinil	0.02	propachlor	0.02
captan**	0.02	flusilazole	0.02	propanil	0.02
carbendazim	0.02	fluvalinate-tau	0.02	propargite	0.02
carbofuran	0.02	folpet	0.02	propetamphos	0.02
chlorpfenvinphos	0.02	fonofos	0.05	propiconazole	0.02
chlorbenzilate	0.02	heptachlor	0.02	propoxur	0.02
chlorpropham	0.02	heptachlor-epoxide	0.02	propyzamide	0.02
chlorothalonil	0.02	heptenophos	0.02	pyrazophos	0.02
chlorpyriphos	0.02	hexachlorobenzene	0.02	pyrimethanil	0.02
chlorpyriphos-me	0.02	hexaconazole	0.02	pyrifenox	0.02
cis-chlordane	0.02	iprodione	0.02	quintozene	0.02
trans-chlordane	0.02	isofenphos	0.05	quinalphos	0.02
coumaphos	0.02	iodofenphos	0.02	simazine	0.02
cyfluthrin	0.02	kresoxim methyl	0.02	tebuconazole	0.02
βcyfluthrin	0.02	lindane (γ-HCH)	0.02	tecnazene	0.02
λcyhalothrin	0.02	linuron	0.02	terbufos	0.02
cypermethrin	0.05	malathion	0.02	tetradifon	0.02
cyproconazole	0.05	malaoxon	0.02	thiabendazole	0.05
cyprodinil	0.02	mecarbam	0.02	tolcophos methyl	0.02
pp'DDT	0.02	metacriphos	0.02	tolyfluanid	0.02
op'DDT	0.02	metalaxyl	0.02	triazophos	0.02
pp'DDE	0.02	methamidophos	0.05	triadimefon	0.02
op'DDE	0.02	methidathion	0.02	triadimenol	0.02
pp'DDD	0.02	methiocarb	0.02	trifluralin	0.05
op'DDD	0.02	methiocarb sulfone	0.05	trichlorfon	0.05
deltamethrin	0.05	methiocarb sulfoxide	0.05	vinclozolin	0.02
demeton-s-me-sfone	0.02	methoxychlor	0.02		
diazinon	0.02	metolachlor	0.02	EBDC's (dithiocarbamates)	0.05
dichlofluanid	0.02	mevinphos	0.02		
dicloran	0.05	mirex	0.02		
dichlorvos	0.02				
* = LCL is the lowest calibrated level and is equivalent to the limit of determination.					

Annex VI Pesticides determined in Bovine, Porcine, Ovine, Poultry, Equine and Venison Kidney Fat.

Organochlorine compounds & PCB congeners	Lowest Calibrated Level (LCL) (in milligrams per kilogram of fat - ppm)
Aldrin	used as internal standard
α-Chlordane	0.005
ϒ-Chlordane	0.005
pp'DDT	0.005
op'DDT	0.005
pp'DDE	0.005
op'DDE	0.005
pp'DDD	0.005
op'DDD	0.005
Dieldrin	0.005
Dicofol	0.005
α-Endosulfan	0.005
β-Endosulfan	0.005
Endrin	0.005
HCB	0.005
α-HCH	0.005
β-HCH	0.01
σ-HCH	0.005
Heptachlor	0.005
Heptachlor-cis-epoxide	0.005
Lindane (ϒ-HCH)	0.005
PCB 28	0.01
PCB 52	0.01
PCB 101	0.01
PCB 118	0.01
PCB 138	0.01
PCB 153	0.01
PCB 180	0.01
Permethrin	0.04
Quintozene	0.005
Tecnazene	0.005

Annex VI Pesticides determined in Bovine, Porcine, Ovine, Poultry, Equine and Venison Kidney Fat.

Organophosphorous Compounds	Lowest Calibrated Level (LCL) (in milligrams per kilogram of fat - ppm)
Azinphos-Ethyl	0.2
Azinphos-Methyl	0.06
Bromophos-Ethyl	0.07
Bromophos-Methyl	0.07
Chlorfenvinphos	0.06
Chlorpyrifos	0.05
Chlorpyrifos-Methyl	0.05
Diazinon	0.05
Dichlorvos	0.05
Dimethoate	0.05
Ethion	0.05
Fenchlorphos	0.05
Fonofos	0.06
Iodofenphos	0.1
Malathion	0.05
Methidathion	0.04
Mevinphos	0.05
Parathion	0.1
Parathion-methyl	0.05
Phosalone	0.13
Pirimifos-ethyl	0.1
Pirimifos-methyl	0.07
Propetamphos	0.05
Triazophos	0.05

Annex VII Pesticides determined in Milk

Organochlorine Compounds and PCB Congeners	Lowest Calibrated Level (LCL) (in milligrams per kilogram - ppm)
Aldrin	---
α-Chlordane	0.005
ϒ-Chlordane	0.005
Dieldrin	0.005
pp'DDT	0.005
op'DDT	0.005
pp'DDE	0.005
op'DDE	0.005
pp'DDD	0.004
op'DDD	0.005
Dicofol	0.005
α-Endosulfan	0.005
β-Endosulfan	0.005
Endrin	0.005
HCB	0.005
α-HCH	0.005
β-HCH	0.01
σ-HCH	0.005
Methoxychlor	0.005
Heptachlor	0.005
Heptachlor-cis-epoxide	0.005
Lindane (ϒ-HCH)	0.005
PCB 28	0.01
PCB 52	0.01
PCB 101	0.01
PCB 118	0.01
PCB 138	0.01
PCB 153	0.01
PCB 180	0.01
Permethrin	0.04
Quintozene	0.005
Tecnazene	0.005

Organophosphorous Compounds	Lowest Calibrated Level (LCL) (in milligrams per kilogram - ppm)
Azinphos-Ethyl	0.2
Azinphos-Methyl	0.06
Bromophos-Ethyl	0.07
Bromophos-Methyl	0.07
Chlorfenvinphos	0.06
Chlorpyrifos	0.05
Chlorpyrifos-Methyl	0.05
Diazinon	0.05
Dichlorvos	0.05
Dimethoate	0.05
Ethion	0.05
Fenchlorphos	0.05
Fonofos	0.06
Iodofenphos	0.1
Malathion	0.05
Methidathion	0.04
Mevinphos	0.05
Parathion	0.1
Parathion-Methyl	0.05
Phosalone	0.13
Pirimifos-ethyl	0.1
Pirimifos-methyl	0.07
Propetamphos	0.05
Triazophos	0.05

Results included in the above report were generated by the

Pesticide Control Laboratory
Department of Agriculture, Fisheries and Food
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Celbridge
Co. Kildare

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The results in this report relate only to samples tested.

2006

Iarmhair Lotnaidicídí i mBia

Department of
Agriculture,
Fisheries and Food
An Roinn
Talmhaíochta,
Iascaigh agus Bia

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AN ROINN TALAMHAÍOCHTA IASCAIGH AGUS BIA
SEIRBHÍS RIALAITHE LOTNAIDICÍDÍ - LÚNASA 2006
PÁIRC BHACASTÚIN, CROS AN tSIÚNAIGH, CILL DROICHID, CONTAE CILL DARA, ÉIRE.

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Brollach

Is cúis mhór áthais dom torthaí an chláir monatóireachta náisiúnta ar iarmhair lotnaidicíde i mbia a chur i láthair a rinne Seirbhís Rialú Lotnaidicíde (SRL) na Roinn Talamhaíochta Iascaigh agus Bia (RTIB) in 2006 faoi théarmaí chonradh seirbhíse le hÚdarás Sábháilteachta Bia na hÉireann. Tá sábháilteacht bia an-tábhachtach do gach duine sa slabhra bia agus is féidir le tomhaltóirí, tríd an gclár faireacháin ar iarmhair, a bheith cinnte nach bhfuil siad i mbaol ó leibhéil doghlactha d'iarmhair lotnaidicíde agus gur lotnaidicídí údaraithe amháin a chuirtear ar bharraí bia. Déantar anailís ar shamplaí bia i Saotharlann Rialú Lotnaidicíde na Roinn Talamhaíochta Iascaigh agus Bia (RTIB) atá creidiúnaithe ag Bord Chreidiúnú Náisiúnta (NAB) na hÉireann ar chaighdeán ISO 17025 maidir le hanailís ar iarmhair lotnaidicíde áirithe i mbia de bhunadh plandaí agus de bhunadh ainmhithe. Leanfar ag leathnú stádas creidiúnaithe na saotharlainne i gcás breis lotnaidicídí breise agus tráchtearraí bia. Tugtar faisnéis mhionsonraithe sa tuarascáil seo ar eagrú agus cur i bhfeidhm an chláir mhonatóireachta, ar thorthaí an chláir samplála agus anailíse maidir le hiarmharacha lotnaidicídí i mbia allmhairithe agus i mbia a fásadh in Éirinn in 2006 agus ar ghníomhartha a rinneadh sa chás gur thángthas ar thorthaí neamh-shásúla.

Trevor Sargent TD
Aire Bia agus Gairneoireachta

Clár an Ábhair

Clár an Ábhair

Clár an Ábhair (Ar lean.)

Figiúirí

Liosta Na dTáblaí

Réamhrá

Tá sé mar aidhm ag an gclár monatóireachta d'iarmhar lotnaidicíde i mbia, clár atá ar siúl ag An Roinn Talamhaíochta Iascaigh agus Bia (RTIB) trína Sheirbhís Rialaithe Lotnaidicídí (SRL) i mBacastún, Co. Chill Dara, cinnte a dhéanamh de nach mbíonn leibhéil do-ghlactha iarmhair lotnaidicíde ann do thomhaltóirí. Ina theannta sin, tá sé mar aidhm aige a chinntiú go gcuirtear lotnaidicídí i bhfeidhm i gceart ar bharraí bia agus go mbraitear úsaid neamhúdaraithe lotnaidicídí.

De réir na socruithe conartha idir an RTIB agus Údarás Sábháilteachta Bia na hÉireann (USBÉ)[1], tá comhaontú déanta maidir leis an gclár monatóireachta bliantúil atá déanta ag an SRL ón 5 Iúil 1999, agus tugadh faoi thar ceann Údarás Sábháilteachta Bia na hÉireann.

Bíonn sampláil táirgí allmhairithe agus intíre i gceist leis an gclár monatóireachta atá bunaithe. Léiríonn cuid anailíseach an chláir mhonatóireachta patrúin úsáide lotnaidicídí in Éirinn agus thar lear. Tá 800 éigin substaint ghníomhacha cláraithe le húsáid i dtáirgí cosanta planda ar fud an domhain, a mbaintear úsáid as idir 300 agus 400 acu go coitianta. Tá líon na substaintí gníomhacha atá cláraithe le húsáid i dtáirgí cosanta planda laistigh den AE ag titim i gcónaí mar thoradh díreach ar an gclár athbhreithnithe atá á thabhairt faoi de réir cheanglais na Treorach ón gComhairle 91/414/EEC agus táthar ag súil go mbeidh thart ar 350 substaint ghníomhacha mar uaslíon a údarófar le húsáid laistigh den AE in 2008 nuair a bheidh an t-athbhreithniú seo críochnaithe.

Déantar leibhéil iarmhair lotnaidicíde i dtáirgí plandaí agus ainmhithe a rialáil trí Theorainneacha Iarmhair Uasta (TIUanna) a bhunú. Bunaíodh TIUanna in 2006 in Éirinn le haghaidh beagnach 200 lotnaidicíd i dtorthaí agus glasraí (lena n-áirítear tae), le haghaidh 170 lotnaidicíd i ngránaigh agus 120 lotnaidicíd i mbia de bhunús ainmhí, rud a thagann le reachtaíocht ábhartha an Aontais Eorpaigh. Glacadh le Rialachán nua 396/2005 chun iarmhair lotnaidicíde i mbia a rialú agus tá sé mar chuspóir aige TIUanna comhoiriúnacha AE a bhunú do gach lotnaidicíd laistigh de dhá mhí dhéag ó glacadh leis. Tá an dul chun cinn ar chur i bhfeidhm an Rialacháin seo cineál ar gcúl sa Sceideal agus meastar anois nach mbeidh sé i bhfeidhm go dtí Iúil 2008.

I gcás ina dtéitear os cionn na TIUanna, féadfaidh oifigigh na SRL an táirge lena mbaineann a bhaint ón margadh agus é a scriosadh ar chostas an úinéara. Féadfaidh an tAire na ciontóirí a ionchúiseamh chomh maith. Tugtar faoi ríomh ionghabhála cothaithe sna cásanna go léir ina dtéitear os cionn TIU, chun a chinneadh an bhfuil an ionghabháil tar éis dul os cionn na hIonghabhála Laethúla Inghlactha (ILI), nó na géardháileoga tagartha (ARfD), nuair is cuí, don lotnaidicíd atá i gceist agus chun a chinneadh cibé an mbaineann riosca léi nó nach mbaineann do thomhaltóirí na hÉireann, idir daoine fásta agus leanaí. Soláthraítear torthaí na luachálacha seo d'Údarás Sábháilteachta Bia na hÉireann agus déanann an tÚdarás iad a fhíorú go neamhspleách. I gcás ina mbíonn gá leis, féadfaidh an tÚdarás "Mear-Fholáireamh"[2] a eisiúint. Eisítear Mear-Fholáireamh nuair a mheastar go ndéanfadh na leibhéil iarmhair a bhraitear i mbia dochar don tomhaltóir.

Cuirtear sainmhínithe ar na téarmaí éagsúla teicniúla a úsáidtear sa tuarascáil seo ar fáil i ngluais ag deireadh na tuarascála seo (Aguisín III).

1 Conradh Seirbhíse idir Údarás Sábháilteachta Bia na hÉireann agus an Roinn Talmhaíochta, Bia agus Forbartha Áitiúla dár dáta 18 Nollaig 2002
2 Rialachán (AE) Uimh. 178/2002 ó Pharlaimint na hEorpa agus ón gComhairle an 28 Eanáir 2002.

Cláir Mhonatóireachta

Cuirtear cláir mhonatóireachta ar bun do na trí bhiaghrúpa éagsúla a bhfuil TIUanna bunaithe dóibh, bia de bhunadh planda (lena n-áirítear torthaí agus glasraí), gránaigh agus bia de bhunadh ainmhí (feoil, bainne, mil agus táirgíocht déirí). Tugann oifigigh ón SRL faoin tsampláil a dhéantar ar bhia de bhunadh planda agus gránaigh agus tugann baill ó Chigearachtaí Eolaíochta Déiríochta, Gairneoireachta agus Tréidlíochta an RTB faoin tsampláil a dhéantar ar bhia de bhunadh ainmhí.

Glacann an clár monatóireachta don bhliain 2006, ar comhaontaíodh é leis an ÚSBÉ, na nithe seo a leanas san áireamh -

i an clár a mholann an Coimisiún Eorpach[3],
ii patrúin ionghabhála cothaithe thomhaltóirí na hÉireann[4],
iii próifíl iarmhair na dtráchtearraí de réir a bunaíodh ó thorthaí an chláir mhonatóireachta sna blianta roimhe sin,
iv torthaí ó chláir bhallstát eile agus clár comhordaithe an AE,
v sonraí díolacháin lotnaidicídí,
vi láimhseáil/próiseáil bhia roimh ithe.

Léirigh líon iomlán na samplaí gnáthaimh monatóireachta a ndearnadh anailís orthu, arbh ionann é agus 1328, acmhainn na saotharlainne chun samplaí a cuireadh ar aghaidh in 2006 a phróiseáil agus tagann siad le líon na samplaí a ndearnadh anailís orthu in 2004 agus 2005. Ba í 2006 céad bhliain na n-oibríochtaí ag na saoráidí nua i mBacastún. Úsáideadh acmhainní suntasacha laistigh den tsaotharlann, mar a úsáideadh na blianta roimhe sin, chun córais agus nósanna imeachta a chothabháil chun a thacú le creidiúnú INAB[5] na saotharlainne a ghnóthú de réir cheanglais na dTreoracha 89/397/CE[6] agus 93/99/CE[7] ón gComhairle. Tá creidiúnú ag an tsaotharlann faoi láthair a thagann le caighdeán ISO 17025 chun anailís a dhéanamh ar iarmhair lotnaidicíde i mbia de bhunadh planda agus de bhunadh ainmhí araon, trí úsáid a bhaint as teicníochtaí crómatagrafacha gáis. Leathnófar scóip an chreidiúnaithe sin in 2007 chun lotnaidicídí agus tráchtearraí bia breise a thabhairt san áireamh agus léireoidh sé modhanna anailíseacha breise agus úsáid á baint as HPLC/MS/MS atá á dtabhairt san áireamh sa chlár saotharlainne.

Is é an clár monatóireachta an príomh-mhodh chun a fhíorú go n-úsáidtear táirgí cosanta planda (lotnaidicídí) de réir *Dea-Chleachtais Talmhaíochta*. Tá an clár monatóireachta riachtanach má táthar chun mí-úsáid táirgí dlíthiúla agus úsáid táirgí mídhleathacha a aimsiú agus má táthar chun deireadh a chur leis. Féadtar mí-úsáid a bhaint as táirgí údaraithe cosanta planda ar roinnt bealaí éagsúla, m.sh. úsáid rátaí dáileoga iomarcacha, gan aon mheas a léiriú ar na híostréimhsí a sonraíodh idir an úsáid dheireanach agus fómhar barraí a dhéanamh (.i. eatraimh roimh fhómhar barraí) agus úsáid chun críoch nach bhfuil aon údarás tugtha dóibh (.i. úsáidí mídhleathacha). Nuair a úsáidtear iad de réir an *Dea-Chleachtais Talmhaíochta* níor chóir go mbeadh leibhéil do-ghlactha iarmhair lotnaidicíde sa táirge cóireáilte.

3 Moladh ón gCoimisiún dár dáta 1 Márta 2005, lena mbaineann clár monatóireachta comhordaithe Pobal don bhliain 2005 chun a chinntiú go gcomhlíontar na huasleibhéil iarmhair lotnaidicíde i ngránaigh agus orthu chomh maith le táirgí áirithe eile de bhunadh planda (2005/178/CE) IO Uimh L 61/31 an 8 Márta 2005.
4 IUNA, Bunachar Sonraí um Ithe Bia Thuaidh-Theas 2001.
5 Bord Náisiúnta Creidiúnaithe na hÉireann
6 Treoir ón gComhairle dár dáta 14 Meitheamh 1989 maidir le rialú oifigiúil earraí bia. (89/397/CE) IO Uimh. L 186 an 30.6.1989
7 Treoir ón gComhairle dár dáta 29 Deireadh Fómhair1993 maidir le hábhar bearta breise i leith rialú oifigiúil earraí bia. (93/99/CE)IO Uimh. L 290 an 24.11.1993

De réir Rialacháin na gComhphobal Eorpach (Substaintí Gníomhacha Áirithe i dTáirgí Cosanta Plandaí a Thoirmeasc) 1981 go dtí 1990, tá cosc ar mhargaíocht a dhéanamh ar tháirgí áirithe cosanta planda agus ar úsáid a bhaint astu mar thoradh ar rioscaí ar shláinte daoine nó ar an gcomhshaol a bhaineann lena n-úsáid. Feidhmíonn an clár monatóireachta iarmhair mar tháscaire chomh maith ar leibhéal an chomhlíonta leis na forálacha sin.

A SAMPLÁIL TORTHAÍ AGUS GLASRAÍ

Bíonn sampláil ghnáthaimh dírithe ar thráchtearraí bia lena mbaineann an tábhacht is mó cothaithe. Glactar samplaí go randamach laistigh de ghrúpaí áirithe tráchtearraí. Déantar idir táirgíocht intíre agus onnmhairithe a shampláil, go príomha ag oifigigh údaraithe den tSeirbhís Rialaithe Lotnaidicídí ag an leibhéal mórdhíola. Cinntíonn an cur chuige sin go léiríonn na samplaí a ghlactar na patrúin ithe agus cuireann sé an deis ar fáil chun gníomhartha a ghlacadh, nuair is gá, roimh dháileadh.

Dírítear ar thorthaí agus glasraí de bhunadh sonrach, mar chuid den chlár imscrúdaithe ar shárú, chun aird speisialta a thabhairt orthu, i gcásanna ina bhfuarthas iarmhair ag leibhéil os cionn TIUanna tar éis sampláil ghnáthaimh. Nuair a dhírítear ar tháirge le haghaidh sampláil reachtúil, cibé mar thoradh ar fhaisnéis a bailíodh trí mhonatóireacht ghnáthaimh nó tar éis Foláireamh Bia a d'eisigh ÚSBÉ nó fógra Mear-Fholáirimh a chuir an Coimisiún Eorpaigh chuig USBÉ, déantar an lota sampláilte a fhorghabháil ar feitheamh anailíse. Cinneann na torthaí anailíse cineál an ghnímh atá le glacadh i gcónaí maidir leis an táirgíocht fhorghabháilte. I gcás ina léiríonn na torthaí sárú soiléir ar TIU, agus neamhchinnteacht anailíseach á tabhairt san áireamh, ní cheadófar an táirgíocht a chur ar fáil sa mhargadh agus cuirfear tús le himeachtaí dlí de ghnáth.

B SAMPLÁIL GRÁNACH

Baineann an phríomhcúis imní maidir le gránaigh le hiarmhair a thagann chun cinn mar thoradh ar úsáid táirgí cosanta planda tar éis fómhar barraí. Tá an clár reatha samplála do ghránaigh teoranta, ar chúiseanna praiticiúla, do shampláil agus anailís ghráinní a úsáidtear sna tionscail mhuilleoireachta, bhrachaidh agus ghránach bricfeasta. Déantar gránaigh agus táirgí gránaigh de bhunadh intíre agus allmhairithe a shampláil ar bhonn randamach, ag an bpointe cóimeála nó stórála ag oifigigh údaraithe na SRL.

C SAMPLÁIL BHIA DE BHUNADH AINMHÍ

Glactar samplaí randamacha de shaill bhuaibheach, mhuice, chaorach, éanlaithe agus fiafheola ó roinnt monarchana feola ar fud na tíre. Déantar táirgíocht déirí a shampláil ag monarchana táirgeachta nó pointí cóimeála. Ní bhaineann na samplaí a ndéantar anailís orthu ach le táirgíocht intíre. Tagann na samplaí feola a ndéantar anailís orthu ó ainmhithe aonair. Is léiriú gach sampla táirgíochta déirí ar choinsíneacht áirithe bhuilc. Tugann oifigigh údaraithe de Chigearachtaí Eolaíochta Déiríochta agus Tréidliachta na RTIB faoin tsampláil ar an táirgíocht feola agus déirí.

D SAMPLAÍ DE THÁIRGÍ ILGHNÉITHEACHA

Faightear samplaí gearáin nó inamhrais ó am go ham le hanailís a dhéanamh orthu ag an RTIB, Seirbhísí eile Stáit, Údaráis Áitiúla, tomhaltóirí agus páirtithe eile leasmhara.

E NÓSANNA IMEACHTA ANAILÍSEACHA

Baineann cineál iliarmhar leis na modhanna anailíse a úsáidtear san chuid is mó de na cásanna, cur chuige a dhéanann éascaíocht don uasmhéid aschuir ón tsaotharlann atá indéanta. Braitheann aimsiú agus dearbhú na n-iarmhar lotnaidicíde i samplaí bia ar úsáid brathadóirí sonracha agus i gcás ina bhfuil colúin chrómatagrafacha ábhartha de pholaraíocht éagsúil. Déantar cinntí cainníochtúla trí -

(i) comparáid a dhéanamh le caighdeáin sheachtracha, agus
(ii) i gcás torthaí, glasraí agus gránach, úsáid a a bhaint as cuar calabrúcháin de chaighdeáin mhaitrís-chomhoiriúnaithe.

Déantar anailís ar shamplaí ag úsáid crómatagrafacht gháis den chúid is mó. Is é mais-speictriméadracht an príomh-mhodh a úsáidtear chun iarmhair atá i láthair a aimsiú agus a aithint.

Úsáideadh modh ailtéarnach iliarmhair agus úsáid á baint as HPLC/MS/MS, chun iarmhair beinsimíodasóil a bhrath. Ní raibh an modh anailíse le haghaidh lotnaidicídí beinsimíodasóil ina mhodh creidiúnaithe in 2006.

Cuirtear tagairtí do na modhanna anailíseacha a úsáidtear ar fáil in Aguisín IV.

DEARBHÚ CÁILÍOCHTA

Cloítear le nósanna imeachta gnáthaimh um dhearbhú cáilíochta laistigh den tsaotharlann de réir na gcleanglas a shonraítear chun creidiúnú i leith an chaighdeán ISO 17025 a chothabháil. Ghlac an tsaotharlann páirt in dhá staidéar inniúlachta i rith 2006, arna maoiniú ag an gCoimisiún Eorpach, chomh maith le hocht staidéar eile, arna eagrú ag an *Food Analysis Performance Assessment Scheme* (FAPAS)[8] sa Ríocht Aontaithe. Bhí na torthaí a fuair an tSaotharlann Rialaithe Lotnaidicídí sna staidéir inniúlachta sin inghlactha i ngach cás ach amháin toradh amháin do chairbeandaisim nuair a soláthraíodh toradh mícheart toisc gur tharla earráid ríofa.

Rinneadh anailís ar 153 éigin lotnaidicíd in 2006 sna samplaí go léir agus carbamáití bisdéthiaeitiléine (EBDCanna) á gcinntiú i líon níos ísle samplaí. Comhfhreagraíonn líon na n-iarmhar lotnaidicídí i samplaí a bhfuil anailís á déanamh orthu leis an líon i samplaí a bhfuil anailís á déanamh orthu don ráithe dheireanach den bhliain 2004. Méadaíodh acmhainn an tsaotharlann i rith 2006 nuair a tugadh isteach teicneolaíocht nua anailíseach agus breisbhailíocht mhodha chun go raibh sí in ann anailís a dhéanamh le haghaidh líon níos airde iarmhar lotnaidicíde, a bheidh na tairbhí air sin soiléir i gclár oibre na bliana 2007.

8 Is trádmharc é an FAPAS den UK Department of the Environment, Food and Rural Affairs [DEFRA]

TORTHAÍ AGUS PLÉ

A TORTHAÍ AGUS GLASRAÍ

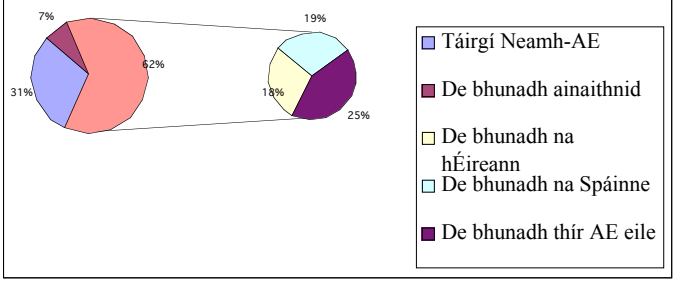
Clár Monatóireachta Gnáthaimh

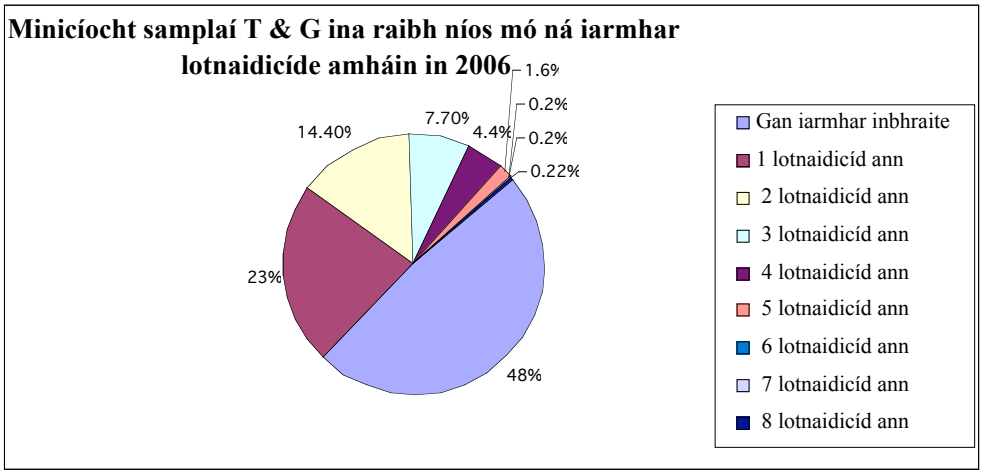
Tugtar achoimre ar thorthaí chlár monatóireachta 2006 le haghaidh torthaí agus glasraí i dTábla 1 thíos. Léirítear mionsonraí de na samplaí anailísithe agus na cinn ina bhfuarthas iarmhair lotnaidicídí i dTábla 2.

In 2006, rinneadh anailís ar 909 samplaí gnáthaimh, 75 cineál éagsúla torthaí agus glasraí (úr nó triomaithe) agus 21 cineál éagsúla táirgí torthaí agus glasraí próiseáilte le haghaidh ábhar iarmhair lotnaidicíde iontu. Bhí 18.5% de na samplaí a glacadh de bhunadh intíre, bhí 43.6% ina n-allmhairithe ó thíortha eile an AE, 31% acu ina n-allmhairithe ó thíortha lasmuigh den AE agus níorbh fhios cén bunadh a bhí ag 7% eile acu. Is suimiúil an rud é a thabhairt faoi deara chomh maith gur tháinig 42% de na samplaí a allmhairíodh ó thíortha eile an AE ón Spáinn. Rinneadh anailís ar shamplaí le haghaidh iarmhar suas go 153 lotnaidicíd agus meitibilít (Aguisín V). Ní raibh aon iarmhair inbhraite lotnaidicíde i 48.2% de na samplaí a ndearnadh anailís orthu, bhí iarmhar amháin nó níos mó inbhraite le fáil i 48.8% acu ag leibhéil níos ísle ná an TIU reachtúil agus bhí leibhéil iarmhair le fail i 2.9% de na samplaí a bhí os cionn an TIU reachtúil.

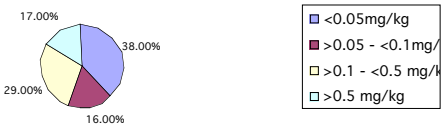
Cuirtear mionsonraí na n-iarmhar a bhraitear ar fáil i dTábla 2 agus i bhFigiúirí 1, 2 agus 3 thíos. Ar an iomlán, braitheadh iarmhair 72 lotnaidicíd éagsúla in 2006. Tá TIUanna AE ann do 52 de na comhdhúileacha sin ach níor socraíodh aon cheann do na 20 lotnaidicíd a bhí fágtha in 2006. Tá Rialachán 396 de 2005 ag tabhairt faoi TIUanna a bhunú faoi láthair do na lotnaidicídí go léir i mbia. Beidh sé sin i bhfeidhm go hiomlán ó mhí Mheán Fómhair 2008 agus cinnfidh sé inghlacthacht na n-iarmhar lotnaidicíde go léir a fhaightear i mbia.

Figiúr 1. Foinse na samplaí F/V a ndearnadh anailís orthu in 2006





Figiúr 3: Réimse dlúis na n-iarmhar lotnaidicíde a aimsíodh in T & G in 2006



Ba iad tiaibeindeasól (12.2%), ipróidé-ón (6.8%), clóraipireafos (6.2%), défheiniolaimín (5.5%), captan (5.0%), próclóras (4.2%), an grúpa beinimile (cairbeandaisim) (3.9%), iomasailil (3.5%), malaitian (2.9%), próicímeadón (2.9%), própairgít (2.8%), cipróidinil (2.5%), ciaipeirmeitrin (2.5%), meitíodaitión (2.2%), falpeit (2.2%), carbairil (2.1%), teibeaconasól (2.1%), tolafluainid (2.0%), clóratailinil (1.9%), fludocsainil (1.8%), pirimeatanail (1.8%) agus asocsastróibin (1.8%) na lotnaidicídí is coitianta a braitheadh sna samplaí dearfacha sa chlár monatóireachta gnáthaimh. Ar na lotnaidicídí eile a braitheadh sna samplaí a ndearnadh anailís orthu, bhí aisínfós-meitile, beinilaicsil, dé-feintrin, déteirteanól, brómapróláit, búiphirimáit, carbófúrán, clórprófam, clóirfeinveanfos, ciproconasól, deiltemeitrin, deimeaton-s-me-fone, déchlófluainid, déchófól, démheitiáit/óimeatóáit, ionsulfán, est-feanvailéaráit, féinearamól, feineicseaimíd, feinítriton, feanpróp áitrin, feintión, fluidé-ocsainil, flúsaileasól, tó-flúbalionáit, creasocsaim-meitile, lambda-cihaileatrin, lionúrón, an grúpa mainéibe, meipeanipirin, miotalaicsil, meiteacharb, micleabútainil, ocsaidiocsail, fosalón, fosmeit, pirimicharb, pirimifos-me, propiconazole, próipisimíd, pimeitreasín, pireaclostróbain, pirimeatanail, siomaisín, teibeaconasól, tiofanáit-meitile, tolclofos-meitile, tolafluainid, triadimefon/ triadiminol, tríflúrailín agus fíoncleasóilín. Rinneadh anailís ar líon teoranta in 2006 le haghaidh iarmhar carbamáití bisdéthiaeitiléine agus nuair a braitheadh iarmhair tugadh tuairisc orthu sin i dTábla 2. Tá an ráta braite le haghaidh iarmhair áirithe lotnaidicíde in 2006 cosúil leis an ráta a bhí ann don bhliain 2005. Ba iad iarmhair tiaibeindeasóil a bhí ina n-iarmhair is coitianta a braitheadh arís in 2006, agus bhí laghdú suntasach sa líon cásanna inar braitheadh iarmhair ipróidé-óin agus grúpa beinimile. Ar an iomlán, bhí an líon cásanna inar braitheadh lotnaidicídí níos ísle nuair a cuireadh i gcomparáid le torthaí 2005 iad. D'fhéadfadh gur toradh é sin ar an líon níos airde samplaí próiseáilte a ndearnadh anailís orthu in 2006 ach i roinnt cásanna, cosúil le cás na cairbeandaisime, is dócha gur léiriú é chomh maith ar chinntí ag leibhéal an AE chun srian a chur ar líon na n-úsáidí faofa do lotnaidicídí ainmnithe i dtáirgí cosanta planda. Níl aon sainmhíniú soiléir ar líon níos ísle na gcásanna inar braitheadh iarmhair ipróidé-óin agus ar an laghdú sa mhinicíocht ó 11.3% in 2005 go dtí 6.8% in 2006. Ba iad Clóraipireafos, malaitian agus ciaipeirmeitrin na lotnaidicídí is coitianta a braitheadh agus líon na gcásanna braite cosúil le líon 2005.

Úsáidtear tiaibeindeasól den chuid is mó mar fhungaicíd tar éis fómhar barraí agus braitheadh é go príomha i dtorthaí citris, coimhthíocha agus úlla. Úsáidtear ipróidé-ón le raon leathan barraí (braitheadh iarmhair i 20 cineál barra éagsúla) agus úsáidtear ar thorthaí agus ar ghlasraí é. Braitheadh iarmhair clóraipireafois go príomha i dtorthaí citris ach aimsíodh é chomh maith i bpóma (m.sh úlla, piorraí srl), torthaí coimhthíocha (m,sh. mangónna, páiseoga, papaya, srl.) agus i nglasraí fréimhe (m.sh. Cairéid, tornapaí, meacain bhána srl.). Fuarthas iarmhair défheiniolaimíne ar úlla agus piorraí amháin den chuid is mó, rud a thagann lena phríomhúsáid chun scalladh úill a rialú. Braitheadh iarmhair captain go príomha in úlla, piorraí, i dtorthaí citris agus caora. Aimsíodh iarmhair próclórais go príomha i dtorthaí citris agus i dtorthaí trópaiceacha ilghnéitheacha agus roinnt iarmhar á n-aimsiú i muisiriúin agus leitís. Braitheadh iarmhair carbendazim go príomha i dtorthaí citris agus póma. Fuarthas iarmhair chomh maith i dtorthaí cloch, coimhthíocha agus caora. Tugtar mionsonraí na n-iarmhar go léir a braitheadh sna torthaí agus glasraí i dTábla 2.

Ar an iomlán, fuarthas iarmhair lotnaidicíde i 209 sampla (23%), fuarthas iarmhair dhá lotnaidicíd i 123 sampla (13.5%), fuarthas iarmhair trí lotnaidicíd i 67 sampla (7.3%), fuarthas iarmhair ceithre lotnaidicíd i 40 sampla (4.4%), fuarthas iarmhair cúig lotnaidicíd i 15 sampla (1.6%), fuarthas iarmhair sé lotnaidicíd in dhá shampla (0.2%), fuarthas iarmhair seacht lotnaidicíd in dhá shampla (0.2%) agus fuarthas iarmhair ocht lotnaidicíd in dhá shampla (0.2%).

Fuarthas iarmhair lotnaidicíde os cionn TIU i sé shampla gnáthaimh monatóireachta is fiche. Fuarthas iarmhair os cionn TIU i 7 sampla (4.4 %)(leitís x4, spionáiste, cairéad agus mearcan bán) den 158 sampla de bhunadh intíre, agus aimsíodh iarmhair os cionn TIU i 7 gcinn (1.7%) de na 410 sampla a tháinig ó thíortha eile an AE agus aimsíodh iarmhair os cionn TIU i 12 sampla (4.4%) ó na samplaí a bhí fágtha a tháinig ó thíortha nach raibh san AE.

Bhí TIUanna a bunaíodh ag an teorainn chinntiúcháin (TAC) i gceist i naoi sampla dhéag de na 26 sampla a raibh iarmhair lotnaidicídí iontu a bhí os cionn an TIU. Bhain aon chás déag inar sáraíodh an TIU le bia a meastar nach bhfuil ach tábhacht theoranta chothaithe acu (Cíobhaí x1, litchi x1, anann x1, gránúll x1, rambutan x1, sponáiste x1, cúirséad x1, fraochán gorm x1, meacan bán x1, mangó x1, pluma x1), agus meastar go bhfuil na cúig shampla dhéag eile (úll x1, oráiste x2, mandairín x3, satsúma x1, soilire x1, cairéad x1, leitís x4, péitseog x2) níos tábhachtaí ó thaobh cothaithe de. Déantar cur síos ar na meastacháin d'ionghabháil chothaithe le haghaidh na lotnaidicídí a braitheadh sna barraí sin i dTábla 17. I gcás na gcairéad, bhí an ionghabháil measta cothaithe os cionn pointí deiridh tocsaineolaíocha na hIonghabhála Laethúla Inghlactha agus na Géardháileoga Cothaithe ach nuair a glacadh a thuilleadh breithnithe praiticiúla san áireamh (baint an chraicinn agus an bhairr), measadh nach raibh na hiarmhair a braitheadh mar bhagairt dho-ghlactha ar shláinte thomhaltóirí na hÉireann.

I gcás na lotnaidicídí nach úsáidtear san Aontas Eorpach ach a d'fhéadfaí a úsáid i dtíortha eile, bunaítear TIUanna go minic ag an teorainn chinntiúcháin (LOD), rud a léiríonn nach bhfuil aon úsáid údaraithe laistigh den AE. Ní bhaineann bagairt dhoghlactha do thomhaltóirí de ghnáth le hiarmhair os cionn TIUanna den saghas sin i dtáirgí allmhairithe (.i. sáruithe teicniúla TIU). Chomhfhreagair gach ceann den dá shárú dhéag ar TIU AE in 2006 i dtáirgí a allmhairíodh ó thíortha lasmuigh den AE le himthosca inar bunaíodh TIU AE ag an teorainn chinntiúcháin. Ba chóir aimhrialtachtaí mar sin a réiteach in am is i dtráth trí phlé ag an Eagraíocht Dhomhanda Trádála agus trí leanúint ar aghaidh ag déanamh comhoibriú idir an AE agus grúpaí táirgeoirí bia i dtíortha den tríú domhan.

Bhain 19 sampla as na 26 sampla, ar braitheadh leibhéil os cionn an TIU iontu, leis an teorainn chinntiúcháin, a d'eascair seacht gcinn (dhá cheann in Éirinn agus cúig chinn ó thíortha an AE) as úsáid mhídhleathach a bhaint as táirge cosanta planda ar na barraí sin laistigh den AE. I gcás na seacht sampla a bhí fágtha, ar bhain gach ceann acu le tíortha laistigh den AE, nuair a aimsíodh TIU os cionn na teorann cinntiúcháin, léiríonn an sárú TIU nár úsáideadh na táirgí ábhartha cosanta planda de réir an dea-chleachtais mholta talmhaíochta do na táirgí sin. Is cosúil gur úsáideadh an-iomarca den táirge nó gur baineadh na barraí gan aon aird a thabhairt ar an tréimhse mholta siarchoinneála.

Samplaí torthaí agus glasraí orgánacha.
Rinneadh anailís ar 49 sampla de thorthaí agus glasraí a fásadh go horgánach in 2006. Níor aimsíodh aon lotnaidicídí i 41 de na samplaí sin ach braitheadh rianiarmhair lotnaidicíde ag an teorainn chinntiúcháin nó os cionn na teorann in ocht gcinn (16.3%), trí chinn ón Spáinn, trí chinn ón Iodáil agus ceann amháin ón tSíle agus ó Uragua. Is dearbhú iad na torthaí ar an eolas a fuarthas in 2005, a léirigh go raibh rianiarmhair lotnaidicídí i gcéatadán beag de na torthaí agus glasraí orgánacha a ndearnadh anailís orthu cé nach raibh aon lotnaidicídí san chuid is mó acu. Léiríonn na torthaí méadú, nuair a chuirtear i gcomparáid iad le torthaí 2005, i leibhéal braite na n-iarmhar lotnaidicíde ó 7.5% de na samplaí in 2005 go dtí 16.3% de na samplaí in 2006. Cuireann na hiarmhair lotnaidicíde sin in iúl gur úsáideadh táirgí cosanta planda go luath i gcúrsa fáis na mbarraí sin nó gur éillíodh na samplaí ar mhodh éigin le lotnaidicídí le linn láimhseála tar éis bainte. Ní bhaineann aon riosca ar aon nós leis na hiarmhair a braitheadh do thomhaltóirí na dtorthaí agus na nglasraí orgánacha sin cé go spreagann sé ceisteanna faoi na córais táirgeachta a úsáideadh. Tugtar mionsonraí thorthaí na samplaí orgánacha a ndearnadh anailís orthu i dTáblaí 10 agus 11.

Samplaí torthaí agus glasraí próiseáilte.
Rinneadh anailís in 2006, ar 85 éigin sampla de thorthaí agus glasraí próiseáilte chun leibheál na n-iarmhar lotnaidicíde a chinntiú. Ba shúnna torthaí nó glasraí iad seacht sampla is daichead acu agus ba thorthaí nó glasraí stánaithe iad an chuid eile. Léiríonn na torthaí anailíseacha nach raibh aon iarmhair inbhraite lotnaidicíde i dtromlach na samplaí, 94%, agus san 6% de na samplaí a raibh iarmhair inbhraite iontu, bhí an tiúchan ann ag leibhéil a bhí an-íseal ar fad agus 0.1mg/kg ar an luach ab airde. Cuireann na leibhéil ísle sin d'iarmhair lotnaidicíde in iúl nach bhfuil ach aistriú beag iarmhar lotnaidicíde i gceist ó thorthaí nó glasraí amha go dtí an táirge próiseáilte nó nach bhfaigheann torthaí agus glasraí a úsáidtear le haghaidh próiseála an leibhéal céanna cóireála lotnaidicíde sula mbaintear iad. Braitheadh cúig lotnaidicíd éagsúla sna cúig shampla (6.3% de shamplaí) ar aimsíodh iarmhar inbhraite iontu, ar bhain tiúcain éagsúla ó 0.02mg/kg go 0.1mg/kg leo. Dearbhaíonn na torthaí sin sonraí ó bhlianta roimhe sin a léiríonn líon níos ísle cásanna iarmhar lotnaidicíde i dtorthaí próiseáilte i gcomparáid le torthaí/glasraí amha agus go bhfuil na hiarmhair a aimsítear ag leibhéil an-íseal ar fad.

Cuirtear na torthaí ar fáil i dTáblaí 12 agus 13 thíos.

9 Conradh Seirbhíse idir Údarás Sábháilteachta Bia na hÉireann agus an Roinn Talmhaíochta, Bia agus Forbartha Áitiúla dár dáta 18 Nollaig 2002
10 Rialachán (AE) Uimh. 178/2002 ó Pharlaimint na hEorpa agus ón gComhairle an 28 Eanáir 2002.
11 Moladh ón gCoimisiún dár dáta 1 Márta 2005, lena mbaineann clár monatóireachta comhordaithe Pobal don bhliain 2005 chun a chinntiú go gcomhlíontar na huasleibhéil iarmhair lotnaidicíde i ngránaigh agus orthu chomh maith le táirgí áirithe eile de bhunadh planda (2005/178/CE) IO Uimh L 61/31 an 8 Márta 2005.
12 IUNA, Bunachar Sonraí um Ithe Bia Thuaidh-Theas 2001.
13 Bord Náisiúnta Creidiúnaithe na hÉireann
14 Treoir ón gComhairle dár dáta 14 Meitheamh 1989 maidir le rialú oifigiúil earraí bia. (89/397/CE) IO Uimh. L 186 an 30.6.1989
15 Treoir ón gComhairle dár dáta 29 Deireadh Fómhair1993 maidir le hábhar bearta breise i leith rialú oifigiúil earraí bia. (93/99/CE)IO Uimh. L 290 an 24.11.1993
16 Is trádmharc é an FAPAS den *UK Department de the Environment, Food and Rural Affairs* [DEFRA]
25 Bia a chaitheamh agus measúnú ar nochtadh do cheimiceáin. Tuarascáil chomhchomhairle FAO/WHO, An Ghinéiv, An Eilvéis, 10-14 Feabhra 1997, WHO/FSF/FOS/97.5

Tábla a 1: Torthaí agus glasraí a ndearnadh anailís orthu maidir le hiarmhar lotnaidicíde in 2006

Tráchtearra	Líon Samplaí faoi Anailís	Líon na Samplaí Éireannacha	Líon na Samplaí ón Iasacht	Iarmhair >MRL	Iarmhair MRL	Iarmhair ND
ÚLL	84	1	83	1	61	22
SÚ ÚILL	10	0	10	0	2	8
AIBREOG	2	0	2	0	0	2
AIBREOG – I STÁN	2	0	2	0	0	2
UBHTHORADH	14	0	14	0	3	11
ABHACÁD	7	0	7	0	5	2
BANANA	18	0	18	0	10	8
SMÉAR DHUBH	4	0	4	0	3	1
SÚ CHUIRÍNÍ DUBHA	3	0	3	0	0	3
FRAOCHÁN GORM	4	0	4	1	1	2
SÚ FHRAOCHÁIN GHORMA	1	0	1	0	0	1
BROCAILÍ	7	1	6	0	4	3
BACHLÓG BHRUISÉILE	1	1	0	0	0	1
CABÁISTE	4	2	2	0	2	2
CAIRÉAD	42	14	28	1	20	21
SÚ CAIRÉID	2	0	2	0	0	2
CÓILIS	16	9	7	0	4	12
SOILIRE	28	8	20	1	7	20
SILÍN	4	0	4	0	2	2
PIOBAR CILLÍ	1	0	1	0	1	0
CABÁISTE SHÍNEACH	1	0	1	0	0	1
DUILLEOGA SÍNEACHA	2	1	1	0	1	1
CLEIMINTÍN	17	0	17	0	16	1
CÚIRSÉAD	12	1	11	1	2	9
MÓNÓG	1	0	1	0	1	0
SÚ MÓNÓG	7	0	7	0	0	7
CÚCAMAR	7	1	6	0	4	3
DÁTA	1	0	1	0	0	1
EINDÍBH	7	1	6	0	5	2
SINSÉAR	2	0	2	0	0	2
SÚ FÍONCHAORA	2	0	2	0	0	2
TÁBLA FÍONCHAORA	21	0	21	0	12	9
SEADÓG	12	0	12	0	9	3
SÚ SEADÓG	2	0	2	0	0	2
SEADÓG (próis, stáin)	4		4	0	0	4
KIWANO	1	0	1	0	0	1
CÍOBHAÍ	15	0	15	1	4	10
CUMCUAT	1	0	1	0	0	1
LÍOMÓID	10	0	10	0	10	0
LEITÍS	59	29	30	4	31	24
LÍOMA	1	0	1	0	1	0
LITCHI	1	0	1	1	0	0
MANDAIRÍN	17	0	17	3	14	0
MANDAIRÍN (próis, stáin)	3	0	3	0	0	3
MANGÓ	12	0	12	1	8	3
MANGETOUT	3	1	2	0	1	2
MEALBHACÁN	6	0	6	0	1	5

Tráchtearra	Líon Samplaí faoi Anailís	Líon na Samplaí Éireannacha	Líon na Samplaí ón Iasacht	Iarmhair >MRL	Iarmhair MRL	Iarmhair ND
MUISIRIÚN	11	10	1	0	4	7
NEACHTAIRÍN	16	0	16	0	11	5
OINNIÚN	3	2	1	0	2	1
ORÁISTE	49	0	49	2	42	5
SÚ ORÁISTÍ	14	0	14	0	1	13
PAPAYA	3	0	3	0	3	0
PEIRSIL	1	1	0	0	0	1
MEACAN BÁN	13	12	1	1	10	2
PÁISEOG	3	0	3	0	0	3
PIS –(I GCOCHALL) (próis, stáin)	11	11	0	0	0	11
PIS GAN COCHALL	17	10	7	0	5	12
PÉITSEOG	11	0	11	2	5	4
PÉITSEOG, (próis, stáin)	6	0	6	0	0	6
PIORRA	44	0	44	0	33	11
PIORRA, (próis, stáin)	2	0	2	0	1	1
PIOBAR	15	2	13	0	5	10
PERSIMMON	1	0	1	0	0	1
ANANN	7	0	7	1	5	1
SÚ ANANN	4	0	4	0	0	4
ANANN, (próis, stáin)	5	0	5	0	0	5
PLUMA	23	0	23	1	10	12
PLUMA, (próis, stáin)	1	0	1	0	0	1
POMEGRANATE	2	0	2	1	1	0
PRÁTA MARGAIDH	49	28	21	0	8	41
SÚ PRÚNAÍ	1	0	1	0	0	1
SIOCAIRE DEARG	3	1	2	0	0	3
RÍSÍNÍ	2	0	2	0	1	1
RAMBUTAN	1	0	1	1	0	0
SÚ CRAOBH	5	1	4	0	2	3
SÚ CRAOBH, (próis, stáin)	1	0	1	0	0	1
CIARD DEARG	1	0	1	0	0	1
CUIRÍN DEARG	2	0	2	0	1	1
BIABHÓG	2	2	0	0	0	2
RUACHÁN	3	0	3	0	3	0
SATSÚMA	18	0	18	1	16	1
SCAROLE	2	1	1	0	0	2
DÁTPHLUMA SHEARÓN	3	0	3	0	1	2
SPIONÁISTE	6	1	5	1	1	4
OINNIÚN EARRAIGH	2	1	1	0	1	1
SCUAIS	1	0	1	0	0	1
SÚ TALÚN	26	8	18	0	20	6
SÚ TALÚN, (próis, stáin)	1	0	1	0	0	1
PRÁTA MILIS	4	0	4	0	0	4
TRÁTA	19	0	19	0	7	12
SÚ TRÁTA	3	0	3	0	0	3
TORNAPA	9	7	2	0	0	9
TORADH UGLI	1	0	1	0	1	0
BIOLAR	1	0	1	0	0	1
IOMLÁIN	**909**	**168**	**741**	**26**	**445**	**438**

Tábla 2: Iarmhair lotnaidicídí a aimsíodh i dtorthaí agus i nglasraí in 2006

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
1. Torthaí	**1.1 Torthaí Citris**		**1.1.2 Cleimintín**	
68644	An Spáinn	clóraipireafos	0.1	2
		déchófal	0.09	2
		malaitian	0.08	2
68649	An Spáinn	clóraipireafos	0.16	2
		tiaibeindeasól	1.83	5
68658	Na hOileáin Chanáracha	clóraipireafos	0.02	2
		malaitian	0.03	2
68691	An Spáinn	clóraipireafos	0.06	2
		déchófal	0.05	2
68701	Maracó	cairbeandaisim	0.09	5
68771	An Spáinn	tiaibeindeasól	2.85	5
		clóraipireafos	0.13	2
		déchófal	0.06	2
68881	An Spáinn	clóraipireafos	0.19	2
		tiaibeindeasól	2.08	5
69243	Uragua	próclóras	0.12	10
69253	An Airgintín	clóraipireafos	0.13	2
		meitíodaitión	0.08	2
		próclóras	1.14	10
		malaitian	0.06	2
		tiaibeindeasól	3.01	5
69266	An Afraic Theas	défheiniolaimín	0.02	0.05
69356	An Airgintín	malaitian	0.32	2
		próclóras	1.61	10
		tiaibeindeasól	4.94	5
69442	An tSile	déchófal	0.28	2
69484	An tSile	tiaibeindeasól	0.59	5
		clóraipireafos	0.1	2
69639	An Spáinn	malaitian	0.28	2
		iomasailil	0.46	5
69841	An Spáinn	iomasailil	1.68	5
		tiaibeindeasól	2.44	5
		déchófal	0.39	2
		clóraipireafos	0.15	2
		malaitian	0.16	2
69844	An Spáinn	clóraipireafos	0.09	2
		malaitian	0.02	2
			1.1.3 Seadóg	
68758	Cúba	tiaibeindeasól	0.57	5
		brómapróláit	0.41	2
		clóraipireafos	0.08	0.3
		malaitian	0.05	2
68799	Iosrael	captan	0.05	0.1
		tiaibeindeasól	1.16	5
69005	An Tuirc	tiaibeindeasól	0.76	5
		próclóras	0.02	10
		clóraipireafos	0.06	0.3
69127	An Tuirc	tiaibeindeasól	0.91	5
		clóraipireafos	0.02	0.3

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
69255	An Afraic Theas	meitíodaitión	0.06	2
		asocsastróibin	0.07	1
69307	An Tuirc	carbófúrán	0.04	0.3
		tiaibeindeasól	0.18	5
		clóraipireafos	0.28	0.3
69421	An Afraic Theas	meitíodaitión	0.12	2
		malaitian	0.03	2
69547	An Afraic Theas	pireaclostróbain	0.01	1
		iomasailil	1.06	5
69638	Cúba	carbairil	0.02	1
		iomasailil	0.74	5
		tiaibeindeasól	1.94	5
		1.1.4 Líomóid		
68707	An Spáinn	captan	0.06	0.1
		clóraipireafos	0.03	0.2
69140	An Spáinn	cairbeandaisim	0.25	5
		déchófal	0.09	2
69198	An Airgintín	cairbeandaisim	0.1	5
69237	An Spáinn	meitíodaitión	0.1	2
69262	An Afraic Theas	feanprópáitrin	0.03	Níl UTI ann
		meitíodaitión	0.88	2
69329	An Afraic Theas	meitíodaitión	0.1	2
		tiaibeindeasól	0.59	5
69335	An Afraic Theas	meitíodaitión	0.12	2
69378	An Afraic Theas	meitíodaitión	0.09	2
69554	An Airgintín	próclóras	0.38	10
		captan	0.07	0.1
		iomasailil	1.6	5
		tiaibeindeasól	0.14	5
69569	An Afraic Theas	meitíodaitión	0.59	2
		feanprópáitrin	0.04	Níl UTI ann
		iomasailil	0.33	5
		tiaibeindeasól	0.08	5
		1.1.5 Líoma		
68936	Brazil	próclóras	0.13	10
		1.1.6 Maindairín		
68713	An Chipir	brómapropláit	0.55	2
		clóraipireafos	0.03	2
		tiaibeindeasól	0.55	5
68840	An Chipir	tiaibeindeasól	2.88	5
68843	An Chipir	**tiaibeindeasól**	**6.13**	**5**
		brómapropláit	0.32	2
		clóraipireafos	0.03	2
		meitíodaitión	0.04	2
68864	An Chipir	tiaibeindeasól	2.65	5
		captan	0.03	0.1
68872	An Spáinn	cipróidinil	0.07	Níl UTI ann
		clóraipireafos	0.04	2
		malaitian	0.04	2
68925	An Spáinn	clóraipireafos	0.05	2
		ipróidé-ón	0.03	2
		meitíodaitión	0.14	2
68932	An Spáinn	clóraipireafos	0.19	2

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		déchófal	0.03	2
68938	An Spáinn	pirimifos-me	0.02	2
69000	An Chipir	tiaibeindeasól	2.28	5
		brómapropláit	0.47	2
69303	Uragua	próclóras	0.34	10
69355	Peiriú	meitíodaitión	0.02	2
		tiaibeindeasól	0.12	5
69415	Peiriú	próiciamideon	**0.03**	**0.02**
		própairgít	0.12	Níl UTI ann
		tiaibeindeasól	1.47	5
		próclóras	1.27	10
69458	Peiriú	tiaibeindeasól	0.22	5
		meitíodaitión	0.03	2
		própairgít	0.06	No MRL
69485	Peiriú	tiaibeindeasól	0.57	5
69488	Peiriú	próclóras	0.57	10
		tiaibeindeasól	2.97	5
		clóraipireafos	0.03	2
		malaitian	0.03	2
69548	An Airgintín	cairbeandaisim	0.09	0.1
		iomasailil	0.29	5
		tiaibeindeasól	1.67	5
		próclóras	0.26	10
69574	Peiriú	**próiciamideon**	**0.07**	**0.02**
		clóraipireafos	0.03	2
		iomasailil	1.51	5
		tiaibeindeasól	0.77	5
		1.1.9 Oráiste		
68657	An Éigipt	tiaibeindeasól	0.63	5
		ipróidé-ón	**0.03**	**0.02**
		ciaipeirmeitrin	0.06	2
		falpeit	0.06	0.1
68674	An Ghréig	falpeit	0.03	0.1
68678	An Spáinn	clóraipireafos	0.05	0.3
		falpeit	0.05	0.1
		malaitian	0.02	2
68700	Maracó	clóraipireafos	0.24	0.3
68706	Iosrael	brómapropláit	0.3	2
		tiaibeindeasól	1.48	5
68749	An Spáinn	déchófal	0.12	2
		clóraipireafos	0.08	0.3
68750	An Spáinn	clóraipireafos	0.04	0.3
		malaitian	0.05	2
68757	An Éigipt	tiaibeindeasól	0.84	5
68796	Maracó	cairbeandaisim	0.08	5
		clóraipireafos	0.18	0.3
68797	An Éigipt	tiaibeindeasól	0.24	5
68798	An Éigipt	malaitian	0.19	2
68818	Maracó	cairbeandaisim	0.06	5
		meitíodaitión	0.1	2
		captan	0.07	0.1
68842	An Éigipt	tiaibeindeasól	1.23	5
		malaitian	0.03	2
		ciaipeirmeitrin	0.06	2
68865	Maracó	clóraipireafos	0.12	0.3
68882	An Éigipt	tiaibeindeasól	1.29	5

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
68890	Iosrael	falpeit	0.04	0.1
		meitíodaitión	0.33	2
		brómapropláit	0.05	2
		tiaibeindeasól	0.97	5
68927	An Spáinn	tiaibeindeasól	0.1	5
		clóraipireafos	0.03	0.3
68975	An Spáinn	clóraipireafos	0.04	0.3
		malaitian	0.04	2
68996	An Éigipt	tiaibeindeasól	1.01	5
69125	Maracó	tiaibeindeasól	0.69	5
		próclóras	0.02	10
69135	An Spáinn	tiaibeindeasól	0.92	5
69142	An Éigipt	tiaibeindeasól	1.25	5
		lambda-cihaileatrin	0.03	0.1
69218	Maracó	clóraipireafos	0.19	0.3
		cairbeandaisim	0.1	5
69227	An Spáinn	tiaibeindeasól	0.72	5
		malaitian	0.07	2
69233	An tSuasalainn	tiaibeindeasól	0.05	5
69245	An Afraic Theas	captan	0.02	0.1
69294	Maracó	clóraipireafos	0.04	0.3
		cairbeandaisim	0.07	5
69304	An Spáinn	tiaibeindeasól	1.13	5
		clóraipireafos	0.04	0.3
		feintión	0.04	Níl UTI ann
69305	An Spáinn	**tiaibeindeasól**	**6.92**	**5**
		clóraipireafos	0.09	0.3
69332	An Afraic Theas	próclóras	0.06	10
69437	An Airgintín	próclóras	0.06	10
		tiaibeindeasól	2.17	5
69492	An Afraic Theas	iomasailil	0.59	5
		pireaclostróbain	0.02	1
		própairgít	0.09	Níl UTI ann
69553	An Airgintín	próclóras	1.09	10
		clóraipireafos	0.11	0.3
		captan	0.09	0.1
		iomasailil	1.68	5
		pireasclostróbain	0.02	1
69555	An Afraic Theas	iomasailil	1.76	5
69562	An Afraic Theas	iomasailil	0.67	5
69570	An tSeineagáil	iomasailil	0.16	5
69586	An tSuasalainn	meitíodaitión	0.04	2
		iomasailil	0.28	5
69597	An Afraic Theas	iomasailil	0.8	5
		tiaibeindeasól	0.38	5
69636	An Afraic Theas	meitíodaitión	0.04	2
		falpeit	0.05	0.1
		iomasailil	1.06	5
69637	An Afraic Theas	iomasailil	0.71	5
		tiaibeindeasól	0.19	5
69655	Uragua	malaitian	0.02	2
69816	An Spáinn	iomasailil	1.07	5
69839	An Afraic Theas	iomasailil	0.49	5
69971	An Spáinn	clóraipireafos	0.05	0.3
		fosmeit	0.09	Níl UTI ann

1.1.10 Satsúma

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
68710	An Tuirc	próclóras	0.06	10
68956	An Afraic Theas	meitíodaitión	0.07	2
		tiaibeindeasól	0.17	5
68970	An Airgintín	cairbeandaisim	0.82	5
		tiaibeindeasól	0.34	5
		malaitian	1.42	2
		próclóras	0.94	10
68997	An Airgintín	tiaibeindeasól	2.53	5
		clóraipireafos	0.06	2
		malaitian	0.21	2
		próclóras	1.23	10
69116	An Afraic Theas	tiaibeindeasól	0.63	5
69124	Peiriú	tiaibeindeasól	2.06	5
		próicímeadón	**0.09**	**0.02**
		própairgít	0.03	Níl UTI ann
		próclóras	1.21	10
69160	Peiriú	tiaibeindeasól	1.93	5
		próclóras	0.37	10
		cipróidinil	0.25	Níl UTI ann
		própairgít	0.05	Níl UTI ann
69169	An Airgintín	malaitian	0.16	2
		tiaibeindeasól	3.7	5
		próclóras	0.27	10
69217	Peiriú	tiaibeindeasól	0.76	5
69226	An Afraic Theas	tiaibeindeasól	0.08	5
		meitíodaitión	0.06	2
69228	An Nua-Shéalainn	tiaibeindeasól	1.77	5
		própairgít	0.04	Níl UTI ann
		próclóras	1.01	10
69254	Peiriú	tiaibeindeasól	0.32	5
69302	Peiriú	própairgít	0.03	Níl UTI ann
		tiaibeindeasól	1.61	5
		próclóras	0.59	10
69571	An Spáinn	clóraipireafos	0.17	2
		malaitian	0.12	2
		feintión	0.05	Níl UTI ann
		iomasailil	0.17	5
		feintión sulfóin	0.02	Níl UTI ann
		feintión sulf-ocsaíd	0.02	Níl UTI ann
69593	An Spáinn	clóraipireafos	0.09	2
		malaitian	0.09	2
		iomasailil	0.2	5
69598	An Spáinn	clóraipireafos	0.09	2
		iomasailil	0.25	5
		tiaibeindeasól	0.15	5
69847	An Spáinn	clóraipireafos	0.05	2
			1.1.11 Toradh Ugli	
68690	Iamáice	tiaibeindeasól	0.32	5
	1.3 Torthaí Póma		**1.3.1 Úll**	
68645	An Fhrainc	défheiniolaimín	0.22	5
		cairbeandaisim	0.06	2
		tiaibeindeasól	0.4	5
68646	An Iodáil	clóraipireafos	0.02	0.5
68650	An Fhrainc	défheiniolaimín	0.02	5
		própairgít	0.28	Níl UTI ann

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		cairbeandaisim	0.06	2
68662	An tSín	cairbeandaisim	0.08	2
68665	An Fhrainc	tiaibeindeasól	0.4	5
		tolafluainid	0.04	Níl UTI ann
		défheiniolaimín	0.29	5
		própairgít	0.56	Níl UTI ann
68675	An Fhrainc	própairgít	0.05	Níl UTI ann
68680	An Ísiltír	tolafluainid	0.09	Níl UTI ann
		captan	0.24	3
		pirimicharb	0.05	Níl UTI ann
68751	An Fhrainc	tiaibeindeasól	0.83	5
		défheiniolaimín	1.4	5
		própairgít	0.39	Níl UTI ann
68764	An Iodáil	captan	0.02	3
68765	An Fhrainc	tiaibeindeasól	0.77	5
		défheiniolaimín	4	5
68822	An Fhrainc	cairbeandaisim	0.22	2
		tiaibeindeasól	1.34	5
		clóraipireafos	0.02	0.5
		própairgít	0.18	Níl UTI ann
		défheiniolaimín	0.6	5
68823	An Fhrainc	pirimeatanail	0.04	Níl UTI ann
		captan	0.02	3
68836	An Fhrainc	tiaibeindeasól	0.71	5
		défheiniolaimín	0.4	5
		própairgít	0.39	Níl UTI ann
68838	An Fhrainc	tiaibeindeasól	0.56	5
		défheiniolaimín	0.14	5
		própairgít	0.02	Níl UTI ann
68839	An Fhrainc	tiaibeindeasól	1.02	5
		défheiniolaimín	0.24	5
		própairgít	0.08	Níl UTI ann
		clóraipireafos	0.03	0.5
		fenitrothion	0.03	0.5
68849	An Ísiltír	tolafluainid	0.09	Níl UTI ann
		captan	0.03	3
		cairbeandaisim	0.36	2
68859	Iosrael	tiaibeindeasól	1.56	5
		défheiniolaimín	2.31	5
		clóraipireafos	0.05	0.5
68867	An Éigipt	própairgít	0.66	Níl UTI ann
		défheiniolaimín	0.73	5
		tiaibeindeasól	0.48	5
68883	An Fhrainc	própairgít	0.24	Níl UTI ann
		défheiniolaimín	0.37	5
		tiaibeindeasól	0.62	5
68884	An Fhrainc	défheiniolaimín	1.31	5
		tiaibeindeasól	0.47	5
68887	An Spáinn	falpeit	0.12	3
		défheiniolaimín	0.06	5
68897	An Phortaingéil	fosalón	0.63	2
		falpeit	0.02	3
		défheiniolaimín	0.63	5
		biteirteanól	0.49	2
68899	An Fhrainc	défheiniolaimín	0.04	5
		tiaibeindeasól	0.23	5
68923	An Bhrasaíl	cipróidinil	0.02	Níl UTI ann
		clóraipireafos	0.02	0.5

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		falpeit	0.03	3
68926	An Nua-Shéalainn	captan	0.03	3
68939	An Fhrainc	própairgít	1.27	Níl UTI ann
		défheiniolaimín	0.03	5
68941	An Iodáil	própairgít	0.1	Níl UTI ann
		défheiniolaimín	2.6	5
		clórpréfam	0.03	0.05
		Fíoncleasóilin	0.11	1
		tiaibeindeasól	2.04	5
68945	An Iodáil	défheiniolaimín	1.03	5
68946	An tSile	clóraipireafos	0.03	0.5
		aisínfós-me	0.06	0.5
		tiaibeindeasól	0.31	5
68947	An Fhrainc	défheiniolaimín	0.84	5
		própairgít	0.24	Níl UTI ann
		cairbeandaisim	0.17	2
68973	An tSile	tiaibeindeasól	0.27	5
		défheiniolaimín	0.03	5
		carbairil	0.42	3
		déchófal	**0.16**	**0.02**
68974	An Airgintín	tiaibeindeasól	1.65	5
		captan	0.47	3
		carbairil	0.42	3
68999	An Fhrainc	cairbeandaisim	0.07	2
		tiaibeindeasól	0.28	5
		défheiniolaimín	0.9	5
		fosalón	0.02	2
69115	An tSile	tiaibeindeasól	0.13	5
		défheiniolaimín	0.94	5
		carbairil	0.65	3
69129	An Fhrainc	tiaibeindeasól	1.89	5
		défheiniolaimín	0.87	5
69130	An tSile	tiaibeindeasól	0.74	5
69133	An Iodáil	captan	0.02	3
		défheiniolaimín	0.53	5
69139	An Ríocht Aontaithe	cairbeandaisim	0.15	2
		défheiniolaimín	0.52	5
		miotalaicsil	0.04	1
69145	An Fhrainc	défheiniolaimín	0.61	5
		tiaibeindeasól	0.44	5
69162	An Afraic Theas	captan	0.03	3
69163	An Fhrainc	clóraipireafos	0.02	0.5
69168	An tSile	carbairil	0.19	3
		tiaibeindeasól	1.71	5
69194	An tSile	tiaibeindeasól	0.3	5
		cairbeandaisim	0.07	2
		défheiniolaimín	1.11	5
69220	An tSile	tiaibeindeasól	0.05	5
		aisíonfós-me	0.14	0.5
		défheiniolaimín	0.04	5
		carbairil	0.2	3
69241	An tSile	tiaibeindeasól	0.09	5
		défheiniolaimín	0.02	5
		carbairil	0.07	3
69258	An Afraic Theas	aisíonfós-me	0.03	0.5
		défheiniolaimín	0.09	5
		bifeintrin	0.02	0.3

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
	Éire			
69270		cairbeandaisim	0.22	2
		défheiniolaimín	0.25	5
		miotalaicsil	0.03	1
69337	An Fhrainc	própairgít	0.03	Níl UTI ann
69338	An tSile	tiaibeindeasól	0.32	5
69348	An Bhrasaíl	falpeit	0.03	3
		carbairil	0.34	3
69417	An Nua Shéalainn	défheiniolaimín	0.24	5
69481	An Fhrainc	clóraipireafos	0.02	0.5
		aisíonfós-me	0.07	0.5
69482	An Fhrainc	captan	0.02	3
		própairgít	0.2	Níl UTI ann
	An Ríocht			
69490	Aontaithe	cairbeandaisim	1.12	2
		défheiniolaimín	0.03	5
69546	An Afraic Theas	défheiniolaimín	0.7	5
69552	An Phortaingéil	clóraipireafos	0.35	0.5
		fosalón	0.24	2
		captan	0.41	3
69566	An Fhrainc	própairgít	0.59	Níl UTI ann
69572	An Fhrainc	captan	0.06	3
		tiaibeindeasól	0.2	5
69573	An Ísiltír	captan	0.11	3
69584	An Ísiltír	pirimicharb	0.15	Níl UTI ann
		tolafluainid	0.05	Níl UTI ann
		captan	0.07	3
		cairbeandaisim	0.09	0.2
69596	An Iodáil	clóraipireafos	0.04	0.5
69600	An Astráil	ipróidé-ón	0.85	10
		défheiniolaimín	0.68	5
		cairbeandaisim	0.02	0.2
69640	An Bheilg	captan	0.03	3
		pirimicharb	0.03	Níl UTI ann
		cairbeandaisim	0.02	0.2
		tiaibeindeasól	0.06	5
		1.3.2 Piorra		
68648	An Phortaingéil	falpeit	1.49	3
		défheiniolaimín	0.9	10
		fosmeit	0.07	Níl UTI ann
68653	An Phortaingéil	défheiniolaimín	0.57	10
		falpeit	0.03	3
		captan	0.06	3
		fosmeit	0.46	Níl UTI ann
		malaitian	0.03	0.5
68659	An Bheilg	tolafluainid	0.09	Níl UTI ann
68663	An Phortaingéil	malaitian	0.03	0.5
		teibeacónasól	0.04	Níl UTI ann
		captan	0.04	3
		défheiniolaimín	0.74	10
68681	An Phortaingéil	clóraipireafos	0.05	0.5
		captan	0.05	3
		falpeit	0.21	3
		fosmeit	0.11	Níl UTI ann
		défheiniolaimín	0.79	10
68685	An Phortaingéil	défheiniolaimín	0.35	10

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		falpeit	0.04	3
		captan	0.02	3
		fosmeit	0.07	Níl UTI ann
		próicímeadón	0.03	1
		teibeacónasól	0.02	Níl UTI ann
68702	An Bheilg	captan	0.08	3
		cairbeandaisim	0.28	2
68709	An Ísiltír	captan	0.41	3
		tolafluainid	0.44	Níl UTI ann
		cairbeandaisim	0.42	2
68753	An Phortaingéil	défheiniolaimín	0.89	10
		captan	0.11	3
68756	An Ísiltír	cairbeandaisim	0.3	2
		biteirteanól	0.03	2
		tolafluainid	0.07	Níl UTI ann
68802	An Phortaingéil	défheiniolaimín	1.94	10
		tiaibeindeasól	0.1	5
		captan	0.04	3
		fosmeit	0.05	Níl UTI ann
68824	An Spáinn	défheiniolaimín	0.26	10
68850	An Ísiltír	tolafluainid	0.12	Níl UTI ann
		captan	0.05	3
		cairbeandaisim	0.28	2
68868	An Phortaingéil	falpeit	0.53	3
		fosmeit	0.03	Níl UTI ann
		défheiniolaimín	1.2	10
68929	An tSile	carbairil	0.09	3
		tiaibeindeasól	0.39	5
		défheiniolaimín	0.11	10
68943	An Afraic Theas	défheiniolaimín	0.02	10
68958	An Afraic Theas	aisínfós-me	0.07	0.5
68972	An Afraic Theas	aisínfós-me	0.09	0.5
69114	An Airgintín	carbairil	0.09	3
		captan	0.28	3
69159	An Astráil	cairbeandaisim	0.21	2
		tolafluainid	0.06	Níl UTI ann
69165	An Afraic Theas	aisínfós-me	0.11	0.5
69212	An Afraic Theas	défheiniolaimín	0.53	10
		pirimeatanail	0.05	Níl UTI ann
		ipróidé-ón	0.23	10
69232	An Ísiltír	cairbeandaisim	0.14	2
		tolafluainid	0.14	Níl UTI ann
69259	An Afraic Theas	aisínfós-me	0.06	0.5
		défheiniolaimín	0.03	10
69420	An Phortaingéil	fosmeit	0.09	Níl UTI ann
		captan	0.06	3
69455	An Fhrainc	grúpa maneb	0.05	3
69479	An Phortaingéil	captan	0.08	3
		fosmeit	0.05	Níl UTI ann
69486	An Iodáil	grúpa maneb	0.07	3
		captan	0.08	3
69491	An Phortaingéil	grúpa maneb	0.26	3
		fosmeit	0.08	Níl UTI ann
		captan	0.1	3
		teibeacónasól	0.02	Níl UTI ann
69550	An Bheilg	tolafluainid	0.08	Níl UTI ann
69561	An Phortaingéil	captan	0.07	3
		fosmeit	0.03	Níl UTI ann

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
69583	An Fhrainc	fosmeit	0.02	Níl UTI ann
69585	An Phortaingéil	captan	0.08	3
	1.4 Torthaí Cloch.		**1.4.2 Silín**	
69336	Ceanada	ipróidé-ón	0.02	5
		micleabútainil	0.03	1
69354	Ceanada	ipróidé-ón	0.02	5
			1.4.3 Neachtairín	
	Na hOileáin			
68767	Chanáracha	teibeacónasól	0.31	Níl UTI ann
		carbairil	0.06	3
		aisínfós-me	0.08	0.5
		ipróidé-ón	1.49	5
68885	An tSile	ipróidé-ón	0.41	5
		carbairil	0.04	3
69156	An Spáinn	ipróidé-ón	0.02	5
69222	An Spáinn	flúvailináit-tó-l	0.02	Níl UTI ann
69231	An Spáinn	cairbeandaisim	0.23	1
69265	An Spáinn	captan	0.03	2
69360	An Fhrainc	ipróidé-ón	0.85	5
69456	An Spáinn	ipróidé-ón	0.13	5
		teibeacónasól	0.02	Níl UTI ann
69565	An Iodáil	teibeacónasól	0.02	Níl UTI ann
69576	An Fhrainc	ipróidé-ón	2.64	5
69641	SAM	fosmeit	0.05	Níl UTI ann
		própairgít	0.84	Níl UTI ann
		feineicseaimíd	0.03	5
		fludocsainil	0.12	Níl UTI ann
			1.4.4 Péitseog	
68769	An tSile	carbairil	0.05	3
68835	An tSile	aisínfós-me	0.19	0.5
		ipróidé-ón	0.07	5
		próipiceanasól	0.04	0.2
68971	**Iosrael**	**óimeatóáit**	**0.04**	**0.02**
		démheitiáit	**0.02**	**0.02**
69157	An Spáinn	**tiaibeindeasól**	**0.06**	**0.05**
69343	An Iodáil	teibeacónasól	0.02	Níl UTI ann
69549	An Iodáil	cipróidinil	0.09	Níl UTI ann
		fludocsainil	0.02	Níl UTI ann
		próicímeadón	0.02	2
		cairbeandaisim	0.03	0.2
69970	An Afraic Theas	ipróidé-ón	0.16	5
			1.4.5 Pluma	
68703	An Afraic Theas	ipróidé-ón	2.76	5
68712	An Afraic Theas	ipróidé-ón	0.4	5
68770	An Afraic Theas	ipróidé-ón	1.76	5
68898	An Afraic Theas	ipróidé-ón	3.16	5
68924	An tSile	ipróidé-ón	2.7	5
68957	An Afraic Theas	ciaipeirmeitrin	0.08	1
		ipróidé-ón	0.17	5
68976	An tSile	**tiaibeindeasól**	**0.09**	**0.05**
		ipróidé-ón	1.3	5

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
69001	An tSile	ipróidé-ón	0.5	5
69577	An Spáinn	ipróidé-ón	0.06	5
		própairgít	0.15	Níl UTI ann
69595	An Iodáil	teibeacónasól	0.05	Níl UTI ann
69967	An Iodáil	teibeacónasól	0.05	Níl UTI ann
		própairgít	0.03	Níl UTI ann
	1.5 Sméara & Torthaí Beaga		**1.1.5.1 Fíonchaora**	
68841	An tSile	captan	0.02	3
68874	An tSile	captan	0.32	3
68886	An tSile	carbairil	0.08	3
		cipróidinil	0.22	Níl UTI ann
		fludocsainil	0.07	Níl UTI ann
68928	An tSile	cipróidinil	0.18	Níl UTI ann
		captan	0.16	3
		fludocsainil	0.09	Níl UTI ann
		ipróidé-ón	0.03	10
68955	An tSile	carbairil	0.21	3
68969	An india	flúsaileasól	0.06	Níl UTI ann
69120	Meicseiceo	micleabútainil	0.03	1
69158	An tSile	fludocsainil	0.17	Níl UTI ann
		teibeacónasól	0.03	Níl UTI ann
69240	An Éigipt	lambda-cihaileatrin	0.08	0.2
69298	An Éigipt	lambda-cihaileatrin	0.03	0.2
69382	An Spáinn	miotalaicsil	0.04	2
		próicímeadón	0.03	5
		falpeit	0.02	3
69412	An Spáinn	miotalaicsil	0.05	2
		próicímeadón	0.04	5
				1.5.2.1 Sú Talún
68654	An Phailistín	ipróidé-ón	0.26	10
		cipróidinil	0.03	Níl UTI ann
		fludocsainil	0.02	Níl UTI ann
		Creasocsaim-meitile	0.02	1
68696	An Éigipt	asocsastróibin	0.18	2
		micleabútainil	0.11	1
68718	An Éigipt	micleabútainil	0.03	1
		asocsastróibin	0.07	2
		cipróidinil	0.27	Níl UTI ann
		fludocsainil	0.29	Níl UTI ann
68719	An Spáinn	cipróidinil	0.08	Níl UTI ann
	An Spáinn	fludocsainil	0.16	Níl UTI ann
	An Spáinn	Creasocsaim-meitile	0.07	1
68721	Maracó	ipróidé-ón	0.28	10
		pirimeatanail	0.06	Níl UTI ann
		dioclofluainid	0.04	10
		micleabútainil	0.05	1
		cairbeandaisim	0.09	0.1
68805	An Spáinn	fludocsainil	0.03	Níl UTI ann
		cipróidinil	0.03	Níl UTI ann
68852	An Spáinn	fludocsainil	0.04	Níl UTI ann
		Creasocsaim-meitile	0.02	1
68871	An Spáinn	fludocsainil	0.07	Níl UTI ann
		Creasocsaim-meitile	0.02	1
		clóratailinil	0.49	3
68880	An Spáinn	pirimicharb	0.03	Níl UTI ann

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
368942	An Spáinn	triadiminol	0.12	0.5
68952	An Spáinn	asocsastróibin	0.08	2
69134	Éire	micleabútainil	0.29	1
		pirimeatanail	0.13	Níl UTI ann
		meiteacharb	0.68	Níl UTI ann
		ipróidé-ón	2.02	10
69184	Éire	ipróidé-ón	0.18	10
		asocsastróibin	0.14	2
69210	Éire	pirimeatanail	0.8	Níl UTI ann
		micleabútainil	0.11	1
		asocsastróibin	0.14	2
69211	Éire	pirimeatanail	0.07	Níl UTI ann
		micleabútainil	0.07	1
		ipróidé-ón	0.89	10
69238	Éire	tolafluainid	0.13	Níl UTI ann
		pirimicharb	0.07	Níl UTI ann
69299	Éire	asocsastróibin	0.69	2
		micleabútainil	0.17	1
		pirimeatanail	3.33	Níl UTI ann
69328	An Ísiltír	pirimicharb	0.05	Níl UTI ann
69441	Éire	tolafluainid	0.05	Níl UTI ann
		ipróidé-ón	0.29	10
		búiphirimáit	0.17	Níl UTI ann
		pirimeatanail	0.53	Níl UTI ann
		micleabútainil	0.05	1
		asocsastróibin	0.08	2
		cairbeandaisim	0.1	0.1
69568	Éire	micleabútainil	0.21	1
		asocsastróibin	0.83	2
		búiphirimáit	0.02	Níl UTI ann
		meipeanipirin	0.36	2
		feineicseaimíd	0.8	5
				1.5.3.1 Sméar Dhubh
68716	Meicseiceo	micleabútainil	0.03	1
		captan	0.03	3
69187	An Bheilg	bifeintrin	0.04	0.3
		iondasulfáid	0.03	0.05
		fludocsainil	0.03	Níl UTI ann
69452	An Bheilg	bifeintrin	0.06	0.3
			1.5.3.2 Sú Craobh	
68722	Meicseiceo	pirimeatanail	0.03	Níl UTI ann
69186	Éire	pirimicharb	0.02	Níl UTI ann
			1.5.4.2 Fraochán Gorm	
68715	An tSile	**feanvailéaráit**	**0.2**	**0.02**
		carbairil	0.09	1
		captan	0.02	3
68879	An tSile	ipróidé-ón	0.05	10
		captan	0.02	3
			1.5.4.3 Mónóg	
68720	SAM	cipróidinil	0.02	Níl UTI ann

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		clóratailinil	0.5	2
				1.5.4.4 Cuirín Dearg
68878	An Ísiltír	tolafluainid	0.05	Níl UTI ann
		Creasocsaim-meitile	0.06	1
		captan	1.32	3
	1.6 Torthaí Ilghnéitheacha		**1.6.1 Abhacád**	
68732	An Spáinn	brómapropláit	0.02	0.05
68935	Peiriú	tiaibeindeasól	1.88	15
69132	An Afraic Theas	próclóras	0.03	5
69293	An Afraic Theas	próclóras	0.76	5
69341	An Afraic Theas	próclóras	0.02	5
			1.6.2 Banana	
69495	Cósta Ríce	iomasailil	0.13	2
		tiaibeindeasól	0.16	5
69496	Panama	iomasailil	0.16	2
		tiaibeindeasól	0.24	5
69497	An Cholóim	tiaibeindeasól	0.14	5
69556	An Cholóim	iomasailil	0.04	2
		tiaibeindeasól	0.15	5
69557	Cósta Ríce	bifeintrin	0.02	0.1
		iomasailil	0.24	2
		tiaibeindeasól	0.22	5
69558	An Cholóim	iomasailil	0.15	2
		tiaibeindeasól	0.06	5
69599	Camarún	iomasailil	0.34	2
69810	An Phoblacht Dhoiminiceach	iomasailil	1.03	2
69811	Cósta Ríce	iomasailil	0.07	2
		tiaibeindeasól	0.05	5
69812	Cósta Ríce	bifeintrin	0.04	0.1
		iomasailil	0.4	2
		tiaibeindeasól	0.3	5
			1.6.3 Toradh Cíobhaí	
68684	An Iodáil	cipróidinil	0.02	Níl UTI ann
68697	An Iodáil	Fíoncleasóilin	0.07	10
		meitíodaitión	**0.04**	**0.02**
68954	An Iodáil	clórprófam	0.02	0.05
69195	An tSile	clóraipireafos	0.04	2
69340	An tSile	deiltemeitrin	0.05	0.05
			1.6.4 Mangó	
68651	An Bhrasaíl	próclóras	0.03	5
68731	Peiriú	próclóras	0.18	5
68855	An Bhrasaíl	**asocsastróibin**	**0.1**	**0.05**
68930	Peiriú	próclóras	0.14	5
69126	Guatamala	próclóras	0.03	5
		siomaisín	0.04	Níl UTI ann
69242	SAM	tiaibeindeasól	1.69	5

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
69346	Iosrael	próclóras	0.1	5
69414	An Bhrasaíl	tiaibeindeasól	0.17	5
69453	Iosrael	próclóras	0.03	5
			1.6.5 Papaya	
68733	An Cósta Eabhair	próclóras	0.27	5
69154	An Cósta Eabhair	próclóras	0.24	5
69229	An Bhrasaíl	tiaibeindeasól	0.29	10
			1.6.6 Anann	
68730	Guatamala	triadimefon	0.22	3
		tiaibeindeasól	**0.54**	**0.05**
		triadiminol	0.22	3
69563	Cósta Ríce	triadimefon	0.12	3
		triadiminol	0.05	3
69587	Cósta Ríce	triadimefon	0.06	3
		triadiminol	0.07	3
69594	Cósta Ríce	triadimefon	0.4	3
		triadiminol	0.17	3
69951	Cósta Ríce	triadiminol	0.04	3
69985	Cósta Ríce	triadimefon	0.18	3
		triadiminol	0.09	3
				1.6.9 Pomegranate
69224	An India	cairbeandaisim	0.06	0.1
69419	An Spáinn	**clóraipireafos**	**0.07**	**0.05**
		ciaipeirmeitrin	**0.15**	**0.05**
			1.6.10 Rambutan	
68821	An Téalainn	**ciaipeirmeitrin**	**0.09**	**0.05**
				1.6.11 Dátphluma Sheáróin
69969	An Spáinn	malaitian	0.02	0.5
			1.6.13 Litchi	
69239	An Téalainn	**clóraipireafos**	**0.1**	**0.05**
		ciaipeirmeitrin	0.05	0.05
2. Glasraí	**2.1 Glasraí Fréimhe & Tiúbair**		**2.1.1 Cairéad**	
68638	Éire	tríflúrailín	0.06	Níl UTI ann
		clóirfeinveanfos	0.23	0.5
68726	An Spáinn	lionúrón	0.1	0.2
68759	An Spáinn	lionúrón	0.04	0.2
68773	Éire	lionúrón	0.03	0.2
		clóirfeinveanfos	0.05	0.5
68776	An Spáinn	ipróidé-ón	0.03	0.3
68786	Éire	lionúrón	0.05	0.2
68815	An tSeineagáil	clóratailinil	0.08	1
68826	An Spáinn	lionúrón	0.02	0.2
68893	An Spáinn	lionúrón	0.08	0.2
68901	An Spáinn	lionúrón	0.12	0.2
68933	Iosrael	teibeacónasól	0.03	Níl UTI ann
		ipróidé-ón	0.05	0.3
68961	An Spáinn	lionúrón	0.08	0.2
68995	An Spáinn	lionúrón	0.07	0.2

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
69105	An Spáinn	lionúrón	0.12	0.2
69146	An Iodáil	clóraipireafos	0.03	0.1
69174	An Ísiltír	ipróidé-ón	0.05	0.3
		teibeacónasól	0.02	Níl UTI ann
69214	An Fhrainc	lionúrón	0.05	0.2
		biúporeamáid	0.04	Níl UTI ann
69250	An Fhrainc	lionúrón	0.03	0.2
69367	Éire	clóirfeinveanfos	0.16	0.5
		tríflúrailín	0.07	Níl UTI ann
69434	Éire	tríflúrailín	0.09	Níl UTI ann
		clóirfeinveanfos	**0.51**	**0.5**
69435	Éire	tríflúrailín	0.06	Níl UTI ann
			2.1.2 Meacan Bán	
68669	Éire	flúsaileasól	0.02	Níl UTI ann
		tríflúrailín	0.06	Níl UTI ann
		lionúrón	**0.21**	**0.2**
		clóirpirifós	0.03	0.05
		clóirfeinveanfos	0.04	0.5
68673	Éire	teibeacónasól	0.02	Níl UTI ann
68692	Éire	falpeit	0.02	0.1
		tríflúrailín	0.06	Níl UTI ann
68779	Éire	clóirfeinveanfos	0.11	0.5
68783	Éire	clóirfeinveanfos	0.06	0.5
68788	Éire	tríflúrailín	0.08	Níl UTI ann
		clóirfeinveanfos	0.13	0.5
69370	Éire	clóirfeinveanfos	0.15	0.5
		tríflúrailín	0.08	Níl UTI ann
69428	Éire	tríflúrailín	0.21	Níl UTI ann
		clóirfeinveanfos	0.06	0.5
69439	Éire	clóirfeinveanfos	0.03	0.5
69449	Éire	tríflúrailín	0.09	Níl UTI ann
		clóirfeinveanfos	0.05	0.5
	2.2 Glasraí Bleibíne		**2.2.1 Oinniún**	
69425	Éire	teibeacónasól	0.03	Níl UTI ann
69755	An Ríocht Aontaithe	clórprófam	0.13	0.5
				2.2.2 Oinniún Earraigh
68981	Éire	ipróidé-ón	0.23	3
		clóratailinil	0.25	5
	2.3 Glasraí Torthúla		**2.3.1 Solanacea**	**2.3.1.1 Ubhthoradh**
68734	An Spáinn	próicímeadón	0.06	2
		ipróidé-ón	0.02	5
69282	An Ísiltír	pirimicharb	0.02	Níl UTI ann
69590	An Ísiltír	Fíoncleasóilin	0.05	3
		próicímeadón	0.02	2
				2.3.1.2 Piobar Cillí
68819	An Ghaimbia	féinearamól	0.03	0.5
				2.3.1.3 Piobar

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
68639	An Spáinn	ionsulfán-2	0.02	1
68677	An Spáinn	próicímeadón	0.03	2
68763	An Spáinn	ipróidé-ón	0.03	5
68810	An Spáinn	próicímeadón	0.04	2
		ipróidé-ón	0.03	5
		pirimeatanail	0.05	Níl UTI ann
		cipróidinil	0.03	Níl UTI ann
68847	An Spáinn	ipróidé-ón	0.03	5
		iondasulfáid	0.03	1
				2.3.1.4 Tráta
68686	An Spáinn	fludocsainil	0.05	Níl UTI ann
		cipróidinil	0.25	Níl UTI ann
68736	An Iodáil	próicímeadón	0.04	2
		cipróidinil	0.02	Níl UTI ann
68761	An Spáinn	triadiminol	0.04	0.3
		ipróidé-ón	0.03	5
68808	An Spáinn	teibeacónasól	0.04	Níl UTI ann
		clóratailinil	0.31	2
		pirimeatanail	0.17	Níl UTI ann
		tolafluainid	0.06	Níl UTI ann
		ipróidé-ón	0.02	5
68809	An Spáinn	cipróidinil	0.03	Níl UTI ann
		tolafluainid	0.03	Níl UTI ann
		próicímeadón	0.17	2
		clóratailinil	0.09	2
		pirimeatanail	0.02	Níl UTI ann
		fludocsainil	0.03	Níl UTI ann
		teibeacónasól	0.03	Níl UTI ann
		triadiminol	0.04	0.3
68948	An Spáinn	próicímeadón	0.04	2
		ipróidé-ón	0.03	5
69236	An Ísiltír	ipróidé-ón	0.02	5
		2.3.2 Cúrcarbaidí (craiceann inite)	**2.3.1.1 Cuirséad**	
68640	An Spáinn	**tiaibeindeasól**	**0.06**	**0.05**
		iondasulfáid	0.02	0.05
68687	An Spáinn	próicímeadón	0.04	1
68737	An Spáinn	próicímeadón	0.08	1
		ipróidé-ón	0.02	2
		cipróidinil	0.04	Níl UTI ann
		fludocsainil	0.04	Níl UTI ann
			2.3.1.2 Cúcamar	
68708	An Spáinn	próicímeadón	0.08	1
68723	An Spáinn	pirimeatanail	0.07	Níl UTI ann
		fludocsainil	0.02	Níl UTI ann
68791	An Spáinn	cipróidinil	0.05	Níl UTI ann
		próicímeadón	0.06	1
		clóratailinil	0.12	1
		miotalaicsil	0.03	0.5
69141	An Ísiltír	próicímeadón	0.05	1

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		2.3.3 Cúcarbaidí (craiceann inite)		
			2.3.3.2 Mealbhacán	
69003	Cósta Ríce	iondasulfáid	0.04	0.3
2.4 Glasraí Brassica		**2.4.1 Brassica Bláthanna**		**2.4.1.1 Brocailí**
68793	An Spáinn	clóratailinil	0.2	3
68834	An Spáinn	clóratailinil	0.22	3
		miotalaicsil	0.04	0.1
69143	An Spáinn	carbairil	0.03	1
69147	An Iodáil	carbairil	0.04	1
				2.4.1.2 Cóilis
68891	Éire	falpeit	0.02	0.1
69372	Éire	ciproconasól	0.05	Níl UTI ann
		beinealaicsil	0.02	0.05
		próipiceanasól	0.02	0.05
		asocsastróibin	0.09	0.5
		teibeacónasól	0.03	Níl UTI ann
69381	Éire	ciaipeirmeitrin	0.05	0.5
69445	An Ríocht Aontaithe	carbairil	0.05	1
		2.4.2 Brassica Cinn		**2.4.2.1 Cabáiste Cinn**
68807	Éire	teibeacónasól	0.03	Níl UTI ann
68854	An Spáinn	miotalaicsil	0.05	1
		cipróidinil	0.03	Níl UTI ann
		ciaipeirmeitrin	0.07	0.5
		2.4.3 Brassica Duilleach		**2.4.3.2 Duilleoga Síneacha**
69278	Éire	deiltemeitrin	0.07	0.5
2.5 Glasraí Duilleacha		**2.5.1 Leitís & a leithéid**		**2.5.1.1 Toradh Dragain**
68642	An Spáinn	próipisimíd	0.02	1
		falpeit	0.18	2
68670	An Spáinn	falpeit	0.03	2
68739	An Spáinn	lambda-cihaileatrin	0.03	1
		cipróidinil	0.05	Níl UTI ann
69284	Éire	deiltemeitrin	0.06	0.5
		ipróidé-ón	0.05	10
69642	An Ísiltír	ipróidé-ón	0.02	10
				2.5.1.2 Leitís
68725	An Spáinn	miotalaicsil	0.02	2
		flúvailináit-tó-l	0.12	Níl UTI ann
		cipróidinil	0.04	Níl UTI ann
68727	Éire	próipisimíd	0.36	1
		óimeatóáit	0.04	0.5
		démheitiáit	0.07	0.5

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		tolclofos-me	0.1	Níl UTI ann
		ipróidé-ón	0.02	10
68746	T Éireann	próclóras	0.04	5
68748	An Ísiltír	fíoncleasóilin	0.06	5
		tolclofos-me	0.13	Níl UTI ann
		tolafluainid	0.15	Níl UTI ann
		ipróidé-ón	3.95	10
68760	Éire	asocsastróibin	1.54	3
		pirimicharb	0.03	Níl UTI ann
		tolclofos-me	0.02	Níl UTI ann
		próipisimíd	0.2	1
		demeton-s-me-sulfone	**0.16**	**0.05**
		ciaipeirmeitrin	0.3	2
		ipróidé-ón	8.73	10
68792	Éire	**asocsastróibin**	**3.72**	**3**
		ipróidé-ón	0.98	10
		ciaipeirmeitrin	0.65	2
		tolclofos-me	0.13	Níl UTI ann
68804	An Spáinn	próicímeadón	3	5
68812	An Spáinn	tolafluainid	0.09	
		próicímeadón	0.03	5
		teibeacónasól	0.04	Níl UTI ann
68813	Éire	ipróidé-ón	0.02	10
		próipisimíd	0.04	1
68814	An Spáinn	próicímeadón	0.05	5
		pirimeatanail	0.02	Níl UTI ann
68816	An Spáinn	próicímeadón	0.06	5
		pirimeatanail	0.04	Níl UTI ann
68851	An Spáinn	miotalaicsil	0.03	2
68869	An Spáinn	miotalaicsil	0.03	2
68963	Éire	tolclofos-me	0.07	Níl UTI ann
		ciaipeirmeitrin	0.1	2
		próipisimíd	0.04	1
		ipróidé-ón	0.88	10
68979	Éire	tolclofos-me	0.03	Níl UTI ann
		ipróidé-ón	0.22	10
		pirimicharb	0.03	Níl UTI ann
69101	Éire	próipisimíd	0.09	1
		démheitiáit	0.03	0.5
		óimeatóáit	0.03	0.5
		ipróidé-ón	0.05	10
69161	An Ríocht Aontaithe	pirimicharb	0.22	Níl UTI ann
69196	Éire	ipróidé-ón	0.05	10
69275	Éire	ciaipeirmeitrin	0.06	2
69276	Éire	óimeatóáit	0.09	0.5
		démheitiáit	0.19	0.5
		próipisimíd	0.06	1
		ciaipeirmeitrin	0.1	2
69289	An Ríocht Aontaithe	lambda-cihaileatrin	0.07	1
		pirimicharb	0.05	Níl UTI ann
69309	An Ríocht Aontaithe	lambda-cihaileatrin	0.03	1
69312	Éire	próipisimíd	0.05	1
		óimeatóáit	0.1	0.5
		démheitiáit	0.39	0.5

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		ciaipeirmeitrin	0.07	2
69359	Éire	ipróidé-ón	0.25	10
69364	Éire	próipisimíd	0.25	1
		lambda-cihaileatrin	0.17	1
		asocsastróibin	0.07	3
		ipróidé-ón	0.04	10
		óimeatóáit	**0.49**	**0.5**
		démheitiáit	**3.86**	**0.5**
		ciaipeirmeitrin	**2.36**	**2**
		malaitian	0.64	3
69365	Éire	ciaipeirmeitrin	0.18	2
		démheitiáit	0.03	0.5
		próipisimíd	0.12	1
69374	An Ísiltír	óimeatóáit	0.03	0.5
69427	Éire	ipróidé-ón	0.24	10
69440	Éire	ipróidé-ón	0.34	10
69443	Éire	ipróidé-ón	0.02	10
		ciaipeirmeitrin	0.09	2
		próipisimíd	**1.67**	**1**
69475	Éire	ciaipeirmeitrin	0.13	2
69591	Éire	ciaipeirmeitrin	0.05	2
		pimeitreasín	0.33	1
69643	An Ríocht Aontaithe	ipróidé-ón	0.08	10
69806	Éire	ciaipeirmeitrin	0.31	2
		pimeitreasín	0.28	1
69817	Éire	ipróidé-ón	0.26	10
		próipisimíd	0.02	1
		demeton-s-me-sulfón	0.04	0.05
		pirimicharb	0.12	Níl UTI ann
		pimeitreasín	0.14	1
		2.5.2 Spionáiste & a leithéid		**2.5.2.2 Spionáiste**
69280	Éire	miotalaicsil	0.03	0.05
		cairbeandaisim	**0.25**	**0.1**
69849	An Spáinn	ciaipeirmeitrin	0.05	0.5
		2.5.5 Luibheanna		**2.5.5.2 Rocket**
68689	An Spáinn	próicímeadón	0.02	0.02
68741	An Spáinn	cipróidinil	0.11	Níl UTI ann
69285	An Ríocht Aontaithe	miotalaicsil	0.03	2
2.6 Glasraí Léagúmacha		**2.6.2 Piseanna**		**2.6.2.1 Mangetout**
69344	An Chéinia	óimeatóáit	0.04	1
		démheitiáit	0.04	1
				2.6.2.2 Piseanna (i gcochall)
69468	Éire	clóratailinil	0.04	0.3
69470	Éire	clóratailinil	0.06	0.3
69802	Ní Fios	Fíoncleasóilin	0.02	0.3
69803	Ní Fios	Fíoncleasóilin	0.13	0.3
		próicímeadón	0.02	0.3
69805	Ní Fios	tiofanáit-meitile	0.01	0.1

Uimhir an tSampla	An Tír Bhunaidh	Lotnaidicíd a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
		Fíoncleasóilin	0.14	0.3
2.7 Glasraí Gasacha		**2.7.1 Soilire**		
68724	An Spáinn	pirimeatanail	0.02	Níl UTI ann
68794	An Spáinn	clóratailinil	0.18	10
68967	An Spáinn	**próicímeadón**	**0.03**	**0.02**
	An Ríocht			
69306	Aontaithe	clóratailinil	0.08	10
69807	Éire	clóratailinil	1.72	10
69808	Éire	clóratailinil	0.61	10
69814	Éire	clóratailinil	1.29	10
69983	Éire	clóratailinil	0.49	10
2.8 Fungais		**2.8.1 Muisiriúin**		
68695	Éire	próclóras	0.04	2
68803	Éire	próclóras	0.05	2
69290	Éire	próclóras	0.05	2
69426	Éire	próclóras	0.03	2
2.11 Práta		**2.11.1 Práta Margaidh**		
68682	Éire	ocsaidiocsail	0.02	Níl UTI ann
68828	Éire	clórprófam	0.98	10
68829	Éire	clórprófam	0.58	10
68953	An Fhrainc	clórprófam	4.59	10
69104	An Fhrainc	clórprófam	0.05	10
69369	An Fhrainc	clórprófam	0.02	10
69980	An Fhrainc	clórprófam	0.03	10
69981	An Fhrainc	clórprófam	0.63	10

Clár Samplála Reachtúil/ Spriocdhírithe

Glacadh trí shampla dhéag de thorthaí milse agus glasraí le linn 2006 mar leanúint ar sháruithe ar an Uasteorainn Iarmhair (UI) a tharla in 2005 nó mar fhreagairt ar fhógra Mear-Airdill. Glacadh dhá shampla acu sin mar shamplaí reachtúla. Tá na torthaí ón anailís ar na samplaí sin tugtha i dTábla 3 thíos.

De bhunadh na hÉireann ba ea naoi gcinn de na samplaí. Onnmhairí ó thíortha AE eile nó ó thríú tíortha ba ea na honnmhairí eile. Ní raibh aon iarmhair sho-bhraite i gceithre cinn de na samplaí. Díríodh ar shampla amháin acu sin, sampla uimhir 69582, toisc drochamhras a bheith ann gur baineadh úsáid mhídhleathach as an lotnaidicíd cairbeandaisim ar shútha talún. Bhí cairbeandaisim i sampla amháin a tógadh ón aonad táirgeachta agus ní ón margadh, rud a dheimhnigh gur tharla sé gur baineadh úsáid neamhdhleathach as táirge cosanta plandaí. Rinneadh iniúchadh ar an áitreabh agus tugadh foláireamh don táirgeoir go gcuirfí gníomh reachtúil i bhfeidhm ina leith dá mbraithfí go raibh aon úsáid mhídhleathach eile á baint as táirgí cosanta plandaí ina chuid táirgí.

Sampla reachtúil leitíse, sampla uimhir 64903, sampla ba leanúint ar an sampla spriocdhírithe, is amhlaidh a sháraigh sé UI. Mar thoradh ar an sárú sin, scriosadh an barr leitíse agus an choinsíneacht.

Leanfar in 2007 den pholasaí spriocdhíriú ar shamplaí de thorthaí agus glasraí a bhfuarthas amach go raibh iarmhair iontu de bhreis ar UIanna i gclár samplála 2006 agus aon samplaí a bhfaighfear amach ina leith go bhfuil sárú iontu ar na rialacháin cuirfear gníomh reachtúil mar is cuí i bhfeidhm ina leith.

Iarmhair lotnaidicídí a braitheadh i samplaí spriocdhírithe de thorthaí milse agus glasraí, 2006.

Tráchtearra	Uimhir an tsampla	Leanúint ar uimhir an tsampla	An tír tionscnaimh	Iarmhar a braitheadh	Iarmhar (Mg/kg)	UI (mg/kg)
Oráiste	68656	64689	An Spáinn	cairbeandaisim	0.05	5
				Tiaibeindeasól+	3.09	5
				Clóraipireafos+	0.07	0.3
						Gan aon
				Fosmeit+	0.06	UI
Oráiste	68766	64856	An Spáinn	Tiaibeindeasól+	1.39	5
Sú talún*	69564	69441	Éire	Pireaclostróbain+	0.121	0.5
						Gan aon
				pirimeatanail	2.77	UI
				Ipróidé-ón+	0.14	10
Sú talun**	69582	69441	Éire			Gan aon
				pirimeatanail	2.29	UI
				Micleabúntainil+	0.41	1
				asocsastróibin +	0.38	2
				cairbeandaisim	2.18	0.1
				Asocsastróibin+	0.061	2
Sú talún	69614	69441	Éire			Gan aon
				Búiphirimáit+	0.021	UI
Leitís	68772	64731	An Spáinn			Gan aon
				Teibeaconasól+	0.07	UI
				Próiciamideon +	0.2	5
						Gan aon
				Tolafluainid+	0.07	UI
				Ciaipeirmeitrin+	0.05	2
Leitís	69100	68760	Éire	Ciaipeirmeitrin+	0.16	2
Leitís	69403	69364	Éire	déimheitiáit	0.86	0.5
				óimeatóáit	0.14	0.5
				Ciaipeirmeitrin+	0.13	2
Leitís*	68963	64951	Éire			Gan aon
				tolclofos-me+	0.07	UI
Spionáiste	68744	64726	An Spáinn	TADA	0	0
Muisiriún	69834	Imscrúdú speisialta	Éire	TADA	0	0
Muisiriún	69835	"	Éire	TADA	0	0
Práta (ware)	69752	62665	Éire	TADA	0	0

* = Glacadh na samplaí sin mar shamplaí reachtúla d'fhonn gníomh reachtúil a thionscnamh in aghaidh úinéir na dtáirgí sa chás go mbraithfí iarmhair lotnaidicídí neamhdhleathacha, de bhreis ar MRL, iontu.

** = Glacadh an sampla sin mar fhreagairt ar úsáid neamhdhleathach Cairbeandaisim, rud nach bhfuil ceadaithe in Éirinn lena úsáid ar Shútha Talún. Glacadh an sampla ón aonad táirgeachta rud a fhágann nach bhfuil feidhm ag an reachtaíocht UI i leith na dtorthaí a fuarthas.

B GRÁNAIGH

i Gnáthchlár monatóireachta

In 2006, rinneadh anailís ar 52 shampla gnáthaimh (20x grán cruithneachta, 2x calóga cruithneachta, 1x calóga eorna, 20x grán coirce, 2x calóga coirce, 1x bran coirce, 1x coirce ceann bioráin agus 5x grán ríse) de bhunadh baile agus allmhairithe araon le haghaidh iarmhar de 153 lotnaidicíd agus meitibilít (Aguisín V). Bhí iarmhair lotnaidicíde i bhfiche sampla a ndearnadh anailís orthu. Bhí iarmhair dé-aisionóin i gcúig shampla coirce de bhreis ar UI agus iarmhair clórprófaim* i dtrí cinn acu. Níl ceachtar den dá lotnaidicíd sin ceadaithe in Éirinn lena n-úsáid ar choirce.

Bunaíodh imscrúdú spriocdhírithe, a bhfuil cur síos air thíos, chun a fháil amach cad é ba chúis leis na hiarmhair dé-aisionóin a braitheadh.

Léiríodh le measúnuithe priacail i gcás cothú nár bhaol do thomhaltóirí na hÉireann na hiarmhair lotnaidicídí a fuarthas sna samplaí gránacha.

Ar an gcaoi chéanna i gcás chlorphropham, tionscnaíodh imscrúdú ar leithligh chun a fháil amach cén fáth a raibh iarmhair dá leithéid i gcoirce.

Tá achoimre ar na torthaí anailíseacha le fáil i dTáblaí 4 agus 5 thíos. Tá UIanna ann i láthair na huaire le haghaidh 169 lotnaidicíd éagsúla i ngránaigh, a bhfuil 95 acu sin ar áireamh sa chlár faireacháin.

Tábla 4:- Gnáthshamplaí gránaigh a ndearnadh anailís orthu maidir le hiarmhar lotnaidicíde in 2006

Tráchtearra	Líon samplaí a anailísíodh	Líon Baile Samplaí	Líon Allmhairithe Samplaí	Iarmhair		
				> UI	UI	NBAI*
Grán cruithneachta	20	9	11	0	7	13
Calóga cruithneachta	2	0	2	0	0	2
Calóga eorna	1	0	1	0	0	1
Grán coirce	20	20	0	5	6	9
Calóga coirce	2	2	0	0	1	1
Bran coirce	1	0	1	0	0	1
Coirce ceann biorán	1	1	0	0	1	0
Rís	5	0	5	0	0	5
Iomláin	52	32	20	5	15	32

* NBAI = Níor braitheadh aon iarmhar.

Tábla 5:- Iarmhair lotnaidicíde a aimsíodh i ngnáthshamplaí gránaigh in 2006

Uimhir an tsampla	An tír tionscnaimh	Iarmhar a braitheadh	Iarmhar (mg/kg)	MRL (mg/kg)
Gránaigh	1.0 Grán Cruithneachta			
69318	An Ríocht Aontaithe	Pirimfos-me+	0.08	5.0
		Malaitian	0.54	8
		Dé-feintrin+	0.07	0.5
69319	An Ríocht Aontaithe	Pirimfos-me+	0.42	5.0
69323	An Fhrainc	Chlorpyriphos-me+	0.03	3.0
		Malaitian	0.34	
		Deiltemeitrin+	0.08	1.0
69539	An Fhrainc	Malaitian	0.02	8.0
69542	Éire	Pirimfos-me+	0.04	8.0
69915	Éire	Pirimfos-me+	0.05	3.0
69917	Éire	Pirimfos-me+	0.04	
	3.0 Grán coirce			
68579	Éire	Peirmitrin+	0.02	0.05
68582	Éire	Peirmitrin+	0.02	0.05
69578	Éire	Clórprofam+	0.12	Gan aon UI
69579	Éire	Clórprófam+	0.05	Gan aon UI
69617	Éire	Clórprófam+	0.09	No UI
69866	Éire	Dé-aisionón	0.44	0.02
69875	Éire	Dé-aisionón	0.02	0.02
69876	Éire	Dé-aisionón	1.22	0.02
69877	Éire	Dé-aisionón	0.51	0.02
69878	Éire	Dé-aisionón	0.04	0.02
69879	Éire	Dé-aisionón	0.49	0.02
	3.2 Calóga coirce			
69581	ÉIRE	Clórprófam+	0.2	Gan aon UI
	3.3 Coirce ceann biorán			
69580	ÉIRE	Clórprófam+	0.09	Gan aon UI

ii Clár Samplála Spriocdhírithe

In 2005, níor aimsíodh aon sárú ar UI i ngránaigh, agus dá réir sin níor fachtóiríodh aon sampláil spriocdhírithe ar ghránaigh isteach i gclár rialaithe iarmhar 2006. In 2006, de bharr gur braitheadh iarmhair clórprófaim+ agus dé-aisionóin i gcoirce is amhlaidh a lean as sin gur tugadh faoi dhá chlár imscrúdaithe speisialta a dhéanamh toisc nach raibh aon údarú ann leis na substaintí sin a úsáid ar choirce in Éirinn. Iarradh ar lucht na n-imscrúduithe an chúis a bhí leis an bhfadhb agus méid na faidhbe a fuarthas a chinneadh d'fhonn na bearta ba ghá chun déileáil leis an bhfadhb a chur i ngníomh.

Maidir leis an imscrúdú ar iarmhair dhé-aisionóin sa choirce níor léirigh sé go bhféadfadh go raibh úsáid neamhdhleathach á baint as lotnaidicíd sin ar choirce. Léirigh sé go raibh éilliú logánta ar shamplaí cáilíochta gráin ag pointe éigin tar éis an tsampláil a bheith déanta agus laistigh den íosta gráin. Ní raibh aon iarmhair dé-aisionóin sa ghrán bulcstóráilte agus dá réir sin ní raibh aon riosca gaolmhar ag gabháil leis do thomhaltóirí. Bunaíodh clár dearbhaithe cáilíochta leis an gcuideachta don chuid eile de 2007, lenar daingníodh na tátail sin.

I gcás na n-iarmhar chlorophram+ a braitheadh, fuarthas amach ó imscrúduithe ag íosta stórais gráin go raibh ceangal idir grán éillithe agus soláthraí áirithe. Léirigh na torthaí go ndearna roinnt gníomhaíochta ar an bhfeirm, cibé acu beartaithe nó de thaisme, an grán a éilliú sular seachadadh é. Toisc gur fhág sé go raibh idir impleachtaí trádála agus impleachtaí traschomhlíonta ag gabháil le hiarmhair chlorophram a bheith i ngrán coirce agus i dtáirge coirce cuireadh in iúl do na Rannáin iomchuí sa Roinn Talmhaíochta, Bia agus Foraoiseachta gur aimsíodh na hiarmhair. Tá torthaí an imscrúdaithe spriocdhírithe speisialta leagtha amach i dTábla 6 thíos.

Tábla 6:- Samplaí gránaigh spriocroghnaithe a ndearnadh anailís orthu d'iarmhair lotnaidicíde in 2006

Tráchtearra	Líon Samplaí a Anailísíodh No. of Samples analysed	Líon Samplaí Baile No. of Domestic Samples	Líon samplaí allmhairithe	>MRL	Iarmhair < UI nó gan aon UI	ND
Coirce	211	211	0	0	48**	163
Crotail choirce	1	1	0	0	0	1
Coirce, mín gránaigh	1	1	0	0	0	1
Calóga coirce	2	2	0	0	0	2

**= Níor bunaíodh aon UI do chlórprófam i ngrán gránach in 2006. Anailísíodh samplaí ar dtús chun a chinneadh an raibh nó nach raibh iarmhair clórprófaim iontu. Rinneadh líon ionadaíoch samplaí ón gcohórt a bhí dearfa i leith iarmhar clórprófaim a ath-anailísiú agus cainníochtaíodh na leibhéil iarmhair a bhí iontu. Áirítear sa tábla achoimre thuas na samplaí go léir a bhí dearfa sa tástáil. Ní thuairiscítear thíos ach na samplaí sin inar cainníochtaíodh an t-iarmhar clórprófaim.

Samplaí spriocdhírithe de ghránaigh ina raibh iarmhair lotnaidicíde (grán coirce na samplaí go léir.

Uimhir an tSampla	An tír tionscnaimh	Iarmhar a braitheadh	Iarmhar (mg/kg)	UI (mg/kg)
69615	ÉIRE	clórprófam	0.13	Gan aon UI
69616	ÉIRE	clórprófam	0.09	Gan aon UI
69618	ÉIRE	clórprófam	0.07	Gan aon UI
69622	ÉIRE	clórprófam	0.03	Gan aon UI
69624	ÉIRE	clórprófam	0.1	Gan aon UI
69625	ÉIRE	clórprófam	0.09	Gan aon UI
69627	ÉIRE	clórprófam	0.06	Gan aon UI
69633	ÉIRE	clórprófam	0.09	Gan aon UI
69634	ÉIRE	clórprófam	0.1	Gan aon UI
69635	ÉIRE	clórprófam	0.23	Gan aon UI
69691	ÉIRE	clórprófam	0.03	Gan aon UI
69714	ÉIRE	clórprófam	0.03	Gan aon UI
69760	ÉIRE	clórprófam	0.61	Gan aon UI
69765	ÉIRE	clórprófam	0.11	Gan aon UI
69777	ÉIRE	clórprófam	0.04	Gan aon UI
69778	ÉIRE	clórprófam	0.05	Gan aon UI
69785	ÉIRE	clórprófam	0.07	Gan aon UI
69787	ÉIRE	clórprófam	0.05	Gan aon UI
69788	ÉIRE	clórprófam	0.07	Gan aon UI
69790	ÉIRE	clórprófam	0.09	Gan aon UI
69791	ÉIRE	clórprófam	0.09	Gan aon UI
69793	ÉIRE	clórprófam	0.11	Gan aon UI

Nótáil: i gcás gráin coirce leis na huimhreacha sampla 69691, 69761, 69762, 69763, 69764, 69766, 69767, 69768, 69769, 69772, 69773, 69774, 69775, 69776, 69780, 69781, 69782, 69783, 69784, 69786, 69789, 69792, 69830, 69831, 69833 bhí iarmhair sho-bhraite chlorphropham iontu ar fad ach níor cainníochtaíodh na leibhéil iarmhair.

C BIA DE BHUNADH AINMHITHE

Is é a bhí i gceist leis an gclár faireacháin do bhia de bhunadh ainmhithe in 2006 ná anailís ar shamplaí d'fheoil úr, bainne, táirgí déiríochta, uibheacha agus mil de bhunadh na hÉireann. Rinneadh anailís ar fheoil bhuaibheach (114), feoil caorach (73), feoil mhuice (63), feoil éanlaithe clóis (23), fiafheoil (6), feoil capaill (8) chomh maith le 11 sampla d'uibheacha le haghaidh iarmhar 55 lotnaidicíd agus a gcuid meitibilítí agus freisin le haghaidh comhaicmeach défheinile polaclóirínithe [uimhreacha 28, 52, 101, 118, 138, 153 agus 180] (Aguisín VI). Chomh maith leis sin rinneadh anailís ar 10 sampla de mhil le haghaidh 153 iarmhar agus meitibilít. (Aguisín V).

Bunaíodh UIanna le haghaidh 122 lotnaidicíd agus áiríodh 34 acu sin i gclár faireacháin 2006. Is é is défheinilí polaclóirínithe ann comhdhúile marthanacha orgánaclóirín a scaoileadh isteach sa timpeallacht san am a caitheadh ó fhoinsí tionsclaíocha ach a bhfuil scortha dá n-úsáid ó shin. Áirítear iad sa chlár faireacháin iarmhar toisc go bhfuil daoine buartha faoi iad a bheith le fáil i mbia agus an bhaint atá acu le débheinsea-dé-ocsainí polaclóirínithe.

1 Bia Bólachta

i Gnáthchlár monatóireachta

Rinneadh anailís ar chéad agus ceathair déag sampla d'fheoil bhuaibheach in 2006. Tá mionsonraí faoi na torthaí anailíseacha, mar ar braitheadh iarmhair lotnaidicíde, leagtha amach i dTábla 7. San iomlán fuarthas iarmhair lotnaidicíde inbhraite i 4 shampla nó 3.5% de na samplaí Bólachta a anailísíodh. Bhí DDT i dtrí cinn de na ceithre shampla (mar ppDDE meitibilíte) agus bhí iarmhar liondáin sa sampla eile acu sin. I gcás na leibhéal iarmhair a braitheadh le haghaidh pp-DDE, bhí siad sa raon 0.005 go dtí 0.009 mg/kg agus meastar gurbh ann dóibh ó leibhéil chúlra san ithir mar thoradh ar úsáid a bhaintí roimhe sin as nó as rianleibhéil a bhí sa bheatha a ghlacadh isteach.

Ar an gcaoi chéanna bhí an t-iarmhar liondáin - ag 0.005 mg/kg - ar rianleibhéal freisin agus féadfaidh gurbh ann dó mar thoradh ar chomhábhar bia a thomhailt ina raibh iarmhair liondáin, sin nó mar thoradh ar theagmháil le táirgí adhmaid ar an bhfeirm a cóiríodh le liondáin. Níor sáraíodh UI i gcás aon cheann de na samplaí a anailísíodh agus níor measadh go raibh na hiarmhair a braitheadh suntasach ó thaobh shábháilteacht an tomhaltóra de. Tá na cainníochtaí de lotnaidicíde orgánaclóirín a braitheadh agus a tuairiscíodh an-íseal ar fad agus léiríonn siad a íogaire atá na modheolaíochtaí anailíseacha atá in úsáid faoi láthair. Níor braitheadh iarmhair défheinilí polaclóirínithe in aon cheann de na samplaí mairteola a anailísíodh.

Tábla 7:- Iarmhair lotnaidicíde a aimsíodh i saill dúáin bólachta in 2006

Uimhir an tSampla	An tír tionscnaimh	Iarmhar a Braitheadh	Iarmhar (mg/kg saille)	UI (mg/kg saille)
67819	Éire	Liondáin	0.005	0.02
67606	Éire	pp-DDE	0.005	1.0
67631	Éire	pp-DDE	0.009	1.0
67634	Éire	pp-DDE	0.007	1.0

ii Clár Samplála Spriocdhírithe

Toisc nach raibh aon sáruithe ar UIanna lotnaidicídí i samplaí bólachta a anailísíodh le blianta beaga anuas, níor tugadh faoi shampláil spriocdhírithe ar fheoil bólachta in 2006.

2. Feoil Caorach

Rinneadh anailís ar thrí shampla is seachtó d'fheoil caorach in 2006. Tá mionsonraí de thorthaí anailíseacha na samplaí ina bhfuarthas iarmhair lotnaidicíde leagtha amach i dTábla 8. Fuarthas iarmhair sho-bhraite i seacht sampla (9.6%) de na samplaí a anailísíodh. Braitheadh iarmhair DDT (mar pp-DDE), difocol+, díldrine, agus dé-aisionóin. Tá UIanna bunaithe do gach aon cheann de na comhdhúile sin i bhfeoil caorach. Is ar leibhéil íseal a bhí na hiarmhair pp-DDE agus díldrine a braitheadh, agus iad ar fad níos lú ná 0.04 mg/kg, agus meastar gurbh ann dóibh mar thoradh ar an úsáid a bhaintí roimhe seo as na lotnaidicídí sin. Is dócha gur léiriú atá sna hiarmhair ar leibhéil rianéillithe de na comhdhúile sin a iongbhabháil ón ithir nó mar rianábhair shalaithe in ábhar beatha.

I gcás difocoil, is é is dócha gurb é is cúis leis na hiarmhair a bheith ann ná tomhailt comhábhair bia éigin ina raibh iarmhair difocoil. Fuarthas iarmhair difocoil san am a caitheadh i laíon citris a bhféadfaidh go raibh sé ar áireamh in ábhar beatha d'ainmhithe agus gur ar an dóigh sin a aistríodh na hiarmhair sin isteach i dtáirgí ó ainmhithe.

Bhí na hiarmhair dé-aisionóin ar leibhéal níos airde, 0.024 agus 2.0 mg/kg, rud a sháraigh UI i gcás amháin. Údaraíodh dé-aisionón lena úsáid mar dhip chaorach in 2006 agus i gcás iarmhair a bheith ag sárú UI tugann sé le fios gurb amhlaidh nár comhlíonadh an tréimhse choinneála siar nó go raibh tiúchan an tuaslagtha dipe níos airde ná mar a moladh ar an lipéad.

Níor measadh go raibh tábhacht leis na hiarmhair i dtaca le sábháilteacht an tomhaltóra.

Tábla 8:- Iarmhair lotnaidicíde a aimsíodh i saill dúáin caorach in 2006.

Uimhir an tSampla	An tír tionscnaimh	Iarmhar a braitheadh	Iarmhar (mg/kg saille)	UI (mg/kg saille)
67552	Éire	pp-DDE	0.02	1
67553	Éire	Dieldrin	0.04	0.2
67556	Éire	Dicofol	0.01	0.05
67564	Éire	pp-DDE	0.007	1.0
67593	Éire	pp-DDE	0.034	1.0
67712	Éire	Dé-aisionón	2.0	0.7
67839	Éire	Dé-aisionón	0.24	0.7

ii Clár samplála spriocdhírithe

Toisc nach raibh aon sáruithe ar UIana lotnaidicídí i samplaí caorach a anailísíodh le blianta beaga anuas, níor tugadh faoi shampláil spriocdhírithe ar fheoil caorach in 2006.

3. Feoil Mhuice

i Gnáthchlár monatóireachta

Rinneadh anailís ar thrí shampla is trí scór de shaill mhuice in 2006. Tá mionsonraí de na torthaí anailíseacha ina bhfuarthas iarmhair lotnaidicídí leagtha amach thíos i dTábla 9. Fuarthas amach go raibh iarmhar lotnaidicídí inbhraite le fáil i dtrí shampla (4.8%), de mhalairt ar 2003 agus 2004 nuair nach bhfuarthas aon iarmhair sho-bhraite agus i gcomparáid le 2005 mar a bhfuarthas go raibh iarmhair sho-bhraite i 4.3% de na samplaí. Tá na torthaí leagtha amach i dTábla 8 thíos. Léirigh measúnú ar na hiarmhair a bhí ann nach raibh tábhacht leo ó thaobh shábháilteacht an tomhaltóra de. Sáraíodh an UI do liondán i sampla amháin.

Uimhir an tSampla	An tír tionscnaimh	Iarmhar a braitheadh	Iarmhar (mg/kg saille)	UI (mg/kg saille)
67577	Éire	pp-DDE	0.005	1.0
67592	Éire	Dicofol	0.008	0.05
67766	Éire	Liondán	0.04	0.02
Samplaí spriocdhírithe 2006 ina raibh iarmhair lotnaidicídí				
67845	Éire	Liondán	0.007	0.02
67846	Éire	Liondán	0.005	0.02

ii Clár Samplála Spriocdhírithe

I gcás samplaí muiceola ní raibh aon sárú ar UI lotnaidicídí le roinnt blianta anuas anall go dtí 2005, agus an bhliain sin san áireamh. Rinneadh imscrúdú ar iarmhar liondáin a braitheadh, de bhreis ar an UI, in aon sampla muice d'fhonn cúis an tsáraithe sin a chinneadh. Measadh gur dócha gur dhíorthaigh na hiarmhair a bhí sa mhuiceoil, ag na leibhéil a aimsíodh, ó iarmhair liondáin a bheith i láthair in ábhar beatha do mhuca nó i bhfoinse eile nach fios céard é.

Rinneadh anailís ar dhá shampla dhéag d'ábhar beatha do mhuca agus ar thrí shampla dhéag de chomhábhair bheatha do mhuca [pónaire shoighe (6x), ola shoighe (2x), geir (3x), ola ráibe (1x) agus pis phróitéine (1x) ón soláthaí ábhair beatha go dtí an t-aonad táirgthe muc. Fuarthas amach go raibh na samplaí uile d'ábhar beatha agus de chomhábhair bheatha saor ó iarmhair liondáin.

Maraíodh dhá mhuc bhreise ón aonad táirgeachta d'fhonn a chinneadh ar lean iarmhair liondáin de bheith i muca ón aonad táirgeachta. Tá na torthaí leagtha amach i dTábla 9 thuas mar a léirítear go bhfuil rianiarmhair le fáil ar leibhéil liondáin ba lú ná an UI. Léiríonn na torthaí nach é an t-ábhar beatha do mhuca is foinse do na hiarmhair liondáin ach go bhfuil foinse truaillithe ó liondán fós laistigh den aonad táirgeachta muc. Toisc go raibh na leibhéil iarmhair ar fad íseal agus nár sháraigh siad an UI ar iad a dhéanamh arís agus nár bhaol do thomhaltóirí dá mbarr, níor glacadh aon bheart breise chun an cheist a réiteach.

4. Táirgí Déiríochta

i ngnáthchlár monatóireachta do 2006

Rinneadh anailís ar naoi shampla is caoga de bhainne in 2006. Ní raibh aon iarmhair lotnaidicídí inbhraite le fáil in gceann ar bith de na samplaí.

ii Clár Samplála Spriocdhírithe

Toisc nár sáraíodh UI lotnaidicídí i samplaí bainne le roinnt blianta anuas, níor tugadh faoi shampláil spriocdhírithe ar tháirgí bainne in 2006.

5. Fiafheoil

Rinneadh anailís ar shé shampla fiafheola in 2006. Níor braitheadh aon iarmhair lotnaidicídí sna samplaí a anailísíodh. Níor tugadh faoi aon shampláil spriocdhírithe toisc nach raibh aon tuairisc ar sháruithe UI lotnaidicídí sna blianta roimhe sin.

6. Éanlaith Chlóis

Rinneadh trí shampla is fiche de shaill éanlaithe clóis a anailísiú féachaint an raibh aon iarmhair lotnaidicídí ann. Fuarthas amach go raibh iarmhair inbhraite liondáin agus díldrine in dhá shampla (8.7%). Is ar rianleibhéil a bhí na hiarmhair sin, £ 0.01 mg/kg, agus níor sháraigh siad UI le haghaidh liondáin ná díldrine i bhfeoil éanlaithe clóis. Tá mionsonraí na dtorthaí anailíseacha a aimsíodh leagtha amach i dTábla 10.

Tábla 10:- Iarmhair lotnaidicídí a aimsíodh i saill éanlaithe in 2006

Uimhir an tSampla	An Tír Tionscnaimh	Iarmhar a aimsíodh	Iarmhar (mg/kg saille)	UI (mg/kg saille)
67719	Éire	Liondán	0.01	0.02
		Díldrin	0.006	0.2
67771	Éire	Liondán	0.007	0.02

Ní léir cad is foinse do na hiarmhair rianliondáin agus riandíldrine agus féadfaidh go bhfuil baint acu le rianiarmhair in ábhar beatha d'éanlaith, sin nó baint a bheith acu le scamhacháin adhmaid a úsáidtear i dtaca le heasair éanlaithe clóis a mhonarú. Is minic a chóirítear adhmad le leasaitheach adhmaid agus san am a caitheadh is amhlaidh a bhíodh liondán agus díldrin le fáil i leasaithigh adhmaid áirithe. Féadfaidh gur eascair an truailliú a braitheadh as sean-adhmad a úsáid chun easair éanlaithe clóis a tháirgeadh, ar adhmad é a cóiríodh tráth éigin leis na leasaithigh sin. Bhí na hiarmhair a fuarthas in 2006 an-íseal ar fad agus ní mheastar aon tábhacht a bheith leo ó thaobh shábháilteacht tomhaltóirí de.

Níor tugadh faoi aon sampláil spriocdhírithe toisc nach raibh aon tuairisc ar sháruithe UI lotnaidicídí sna blianta roimhe sin.

7. Uibheacha

Rinneadh anailís ar aon sampla dhéag d'uibheacha. Ní aimsíodh iarmhair lotnaidicídí inbhraite i gceann ar bith de na samplaí. Tá sé sin ag teacht leis na torthaí chláir faireacháin 2003, 2004 agus 2005.

Níor tugadh faoi aon sampláil spriocdhírithe in 2006 toisc nach raibh aon tuairisc ar sháruithe UI lotnaidicídí sna blianta roimhe sin.

8. Mil

Rinneadh anailís ar dheich sampla meala. Níor aimsíodh iarmhair lotnaidicídí inbhraite i gceann ar bith de na samplaí. Is ionann an toradh sin agus an toradh sna blianta roimhe sin. Níor tugadh faoi aon sampláil spriocdhírithe in 2006 toisc nach raibh aon tuairisc ar sháruithe UI lotnaidicídí sna blianta roimhe sin.

9. Feoil Capaill

Rinneadh anailís ar ocht sampla saille capaill in 2006. Níor braitheadh aon iarmhar lotnaidicídí sna samplaí a anailísíodh. Ba é seo an chéad bhliain a áiríodh feoil capaill sa chlár agus níor áiríodh aon chlár spriocdhírithe ann.

D SAMPLAÍ ILGHNÉITHEACHA AGUS SAMPLAÍ GEARÁIN

Fuarthas thrí shampla gearáin [sampla amháin i ngach cás de bhrocailí agus de phráta chomh maith le scóna donn] mar shamplaí gearáin in 2006 agus rinneadh anailís orthu féachaint an raibh iarmhair lotnaidicídí iontu. Tomhaltóirí a chuir na samplaí sin ar aghaidh lena n-anailísiú toisc go rabhadar buartha faoi cháilíocht na dtáirgí sin. Tá torthaí na n-anailísí sin leagtha amach i dTábla 11. Ní raibh iarmhair lotnaidicídí inbhraite in aon cheann de na samplaí a cuireadh ar aghaidh. Tugadh tuairisc oifigiúil ina raibh mionsonraí faoi na torthaí a fuarthas do gach duine de na gearánaigh.

Tábla 11: Iarmhair lotnaidicídí a aimsíodh i samplaí ilghnéitheacha agus samplaí gearáin in 2006

Uimhir an tSampla	An Tír tionscnaimh	Iarmhar a aimsíodh	Iarmhar (mg/kg)	UI (mg/kg)
Samplaí gearáin.				
69199, Brocailí	Ní fios	Tada		
69987, Práta *Ware*	Unknown	Tada		
69988 Scóna donn	Éire	Tada		

E TÁIRGÍ ORGÁNACHA

In 2006, rinneadh anailís ar 49 sampla de thorthaí agus glasraí, a dúradh a bheidh de bhunadh orgánach, le haghaidh iarmhar lotnaidicídí. In Éirinn a táirgeadh dhá shampla acu sin, b'as tíortha eile AE aon cheann déag is fiche acu agus is i dtríú tíortha a táirgeadh na sé cinn déag eile.

Ní raibh aon iarmhar lotnaidicídí inbhraite i aon sampla agus dhá scór acu. Bhí rianleibhéil lotnaidicídí in ocht sampla. Bhí 7 sampla acu sin £ 0.05 mg/kg agus 0.26mg/kg an léamh a fuarthas san ochtú ceann. I gcás na n-ocht sampla ina raibh iarmhair lotnaidicídí, ba de bhunadh Iodálach x2, de bhunadh na Spáinne x3, de bhunadh na Sile x1, na hAfraice Theas x1 agus Uragua x1. Na leibhéil lotnaidicídí a fuarthas bhíodar an-íseal agus ní rabhthas buartha ar chor ar bith faoi shábháilteacht tomhaltóirí. Tá sé le tuiscint, áfach, ó na hiarmhair lotnaidicídí a fuarthas go mb'fhéidir nach bhfuil na córais táirgeachta atá ann ag teacht leis na ceanglais táirgeachta orgánaí nó gur truaillíodh na samplaí le rianleibhéil lotnaidicídí. Cuireadh torthaí na dtástálacha sin ar aghaidh go dtí oifigigh na Roinne Talmhaíochta, Bia agus Foraoiseachta a rialálann táirgí orgánacha.

Tá liosta na dtáirgí a anailísíodh liostaithe i dTábla 12 thíos agus tá na samplaí sin ina raibh torthaí dearfa leagtha amach i dTábla 13.

Tábla 12.

Samplaí de tháirgí orgánacha a ndearnadh anailís orthu in 2006.		
Tráchtearra	An líon samplaí a anailísíodh	Tíortha tionscnaimh
Oráiste	5	An Iodáil (2), An Afraic Theas (2) agus Uragua
Úll	4	An Iodáil (2) , An Airgintín (2).
Piorra	4	An Airgintín (2), An Iodáil (1) agus An Spáinn (1).
Péitseog	1	An Iodáil (1).
Banana	6	An Phoblacht Dhoiminiceach (6).
Cíobhaí	2	An tSile (2)
Mangó	1	Meicsiceo (1)
Sú talún	3	An Spáinn (3)
Brocailí	1	An Iodáil
Cóilis	2	An Fhrainc (1), An Ríocht Aontaithe (1).
Piobar	1	An Iodáil (1)

Cúirséad	4	An Spáinn (3), An Iodáil (1)
Leitís	1	Éire (1).
Tráta	3	An Iodáil (3).
Práta	2	An Fhrainc (1), An Ghearmáin (1).
Cairéad	5	Éire (1), An Iodáil (3), An RA (1).
Soilire	3	An Spáinn(3).
Pluma	1	An Bheilg

Tábla 13.

Samplaí de tháirgí orgánacha ina raibh iarmhair lotnaidicídí					
Uimhir an tSampla	Tráchtearra	An Tír Tionscnaimh	Iarmhar a aimsíodh.	Leibhéal Iarmhair (mg/kg)	UI (mg/kg)
69245	Oráiste	An Afraic Theas	Captan	0.02	0.1
69655	Oráiste	Uragua	Malaitian	0.02	2.0
68824	Piorra	An Spáinn	Défheiniolaimín	0.26	10
68880	Sú talún	An Spáinn	Pirimicharb	0.03	No MRL
69340	Cíobhaí	An tSile	Deiltemeitrin	0.05	0.05
69146	Cairéad	An Iodáil	Clóropirifos	0.03	0.1
68687	Cúirséad	An Spáinn	Próiciamideon	0.04	1.0
69147	Brocailí	An Iodáil	Carbarail	0.04	1.0

F TÁIRGÍ PRÓISEÁILTE

In 2006, rinneadh anailís ar 92 shampla de thorthaí agus glasraí próiseáilte i leith an mhéid iarmhair lotnaidicídí a bhí ar fáil iontu [aibreoga stánaithe 2x, seadóga stánaithe 4x, mandairíní stánaithe 3x, piseanna stánaithe 11x, péitseoga stánaithe 6x, piorraí stánaithe 2x, anainn stánaithe 5x, plumaí stánaithe 1x , sútha craobh stánaithe 1x agus sútha talún stánaithe 1x], ar shúnna torthaí agus glasraí [sú úill x10, sú cuiríní dubha 3x, sú fraochán gorm1x, sú cairéad 2x, sú monóg 7x, sú fíonchaor 2x, sú seadóige 2x, sú oráiste 14x, sú anainn 4x, sú prúnaí 1x agus sú trátaí 3x] agus ar tháirgí gránaigh próiseáilte [calóga cruithneachta 2x, calóga eorna 1x, calóga coirce 2x, bran coirce 2x agus coirce ceann bioráin 1x].

Fuarthas amach go raibh leibhéil sho-bhraite lotnaidicídí i seacht sampla (7.6% de na samplaí) mar a leanas: sú oráiste (x1), sú úill (x2), piorraí stánaithe, monóga stánaithe, calóga coirce agus coirce ceann bioráin. Na lotnaidicídí a braitheadh, bhí siad údaraithe, i gcás inar bhain sin le hábhar, le haghaidh saothrú oráistí, úlla agus coirce. Bhí na hiarmhair ar leibhéil an-íseal agus níor sháraigh siad na Leibhéil UI a bunaíodh do na hamh-thráchtearraí as a dtáirgtear na táirgí próiseáilte sin.

Tá an ráta braite iarmhar sna táirgí próiseáilte a anailísíodh, ag 7.6%, cuid mhaith níos ísle ná an ráta a fhaightear sna hamh-thráchtearraí a fhreagraíonn dóibh agus deimhníonn sé na leibhéil ísle dá samhail den bhraith a léiríodh i dtuarascálacha 2004 agus 2005. Is é a léirítear leis na torthaí sin go bhféadfaidh nach ndéantar torthaí agus glasraí a úsáidtear le haghaidh próiseála a chóiriú le táirgí cosanta plandaí an oiread céanna agus a chóirítear na cinn sin a dhíoltar go díreach le custaiméirí, sin nó go leanann sé as próiseáil a dhéanamh ar thorthaí, glasraí agus gránaigh a fhástar ar mhodh traidisiúnta go laghdaítear an leibhéal iarmhar lotnaidicídí a bhíonn iontu. Is é is dóichí gur teaglaim de na tuiscintí sin atá i gceist sa mhéid-

gurb iondúil go ndéantar, i gcás torthaí/glasraí, sa chás go n-úsáidtear na torthaí agus na glasraí, iad a phróiseáil go sciobtha agus nach gá cóireálacha réamh/iar-fhómhair toisc nach bhfuil an oiread

sin tábhachta leis an dealramh atá ar na torthaí/na glasraí. Is iondúil go laghdaíonn sé sin an gá a bheadh le hiarmhair dhéanacha a chur ar na bairr sin agus ba chóir, dá bharr sin, go mbeadh iarmhair lotnaidicídí i bhfad níos ísle sa bharr a bhaintear san fhómhar. Ciallaíonn sé sin, faoi seach, gur lú an líon iarmhar lotnaidicídí a bheidh le fáil sa táirge próiseáilte deiridh.
- éascaíonn próiseáil torthaí, go háirithe, baint na n-iarmhar dromchla agus sin is cuid den chúis go mbíonn leibhéil ísle iarmhar le fáil sa táirge deiridh.
- féadann an próiseas próiseála na hiarmhair lotnaidicídí a bhíonn ann a bhriseadh síos agus cuidíonn sé sin le laghdú a dhéanamh ar an leibhéal iarmhar sa táirge deiridh.

Tá liosta na dtáirgí próiseáilte a anailísíodh in 2006 leagtha amach i dTábla 14 thíos agus tá liosta i dTábla 15 de na táirgí sin ina raibh iarmhair lotnaidicídí sho-bhraite.

Tábla 14

Samplaí de na táirgí próiseáilte a anailísíodh in 2006.	
An táirge a anailísíodh	An Líon samplaí a anailísíodh.
Sú anainn	4
Anainn stánaithe	5
Sú monóg	7
Monóga stánaithe	1
Sú cuiríní dubha	3
Sú fraochán gorm	1
Sú fionchaor	2
Sú seadóige	2
Seadóga stánaithe	4
Mandairíní stánaithe	3
Piorraí stánaithe	2
Aibreoga stánaithe	2
Péitseoga stánaithe	6
Plumaí stánaithe	1
Sútha talún stánaithe	1
Sútha craobh stánaithe	1
Sú oráiste	14
Sú cairéad	2
Sú trátaí	3
Sú úill	10
Piseanna stánaithe	11
Calóga eorna	1
Bran coirce	1
Calóga coirce	2
Coirce ceann bioráin	1
Calóga cruithneachta	2
Iomlán	92

Tábla 15.

Samplaí de na táirgí próiseáilte ina raibh iarmhair lotnaidicídí					
Uimhir an tSampla	Tráchtearra	An tír tionscnaimh	Iarmhar a braitheadh	Leibhéal iarmhair (mg/kg)	Leibhéal UI (mg/kg) don amh-thráchtearra
69610	Sú Oráiste	Ní fios	Iomasailil	0.02	5.0
68914	Sú úill	Ní fios	Cairbeandaisim	0.1	2
68992	Sú úill	Ní fios	Tiaibeindeasól	0.09	5
69611	Piorraí stánaithe	An Iodáil	Feineicseaimíd	0.03	0.05
68720	Monóga	SAM	Cipróidinil	0.02	Gan aon UI
69581	Calóga coirce	Éire	Clórprófam	0.2	Gan aon UI
69580	Coirce ceann bioráin	Éire	Clórprófam	0.09	Gan aon Ui

TÁTAIL

A RÉAMHRÁ

Agus an tionchar ar thomhaltóirí a bhainfeadh lena nochtadh d'iarmhair lotnaidicídí tríd an aiste bia á mheas, is ceart an éifeacht a bhainfeadh le nochtadh ainsealach agus le géarnochtadh araon a thabhairt san áireamh. D'fhonn an éifeacht a bhainfeadh le nochtadh ainsealach a mheas, ní mór leibhéal an nochta i rith an tsaoil ar fad agus an éifeacht is dócha a bheadh ag nochtadh den sórt sin ar an tsláinte a thabhairt san áireamh. Tá na teicnící is gá do mheasúnuithe den sórt sin forbartha go maith agus baineann breithniú leo ar na meánleibhéil nochta is dócha a bheadh ann i bhfianaise na hionghabhála laethúla inghlactha (ILI) atá leagtha síos do lotnaidicídí áirithe faoi seach. Tugtar san áireamh leis na luachanna ILI, ar tomhas iad ar an uasleibhéal ionghabhála i rith an tsaoil a meastar nach dtarlódh aon éifeacht díobhálach tocsaineolaíochta uaidh, fachtóir sábháilteachta d'fhonn cinntiú go mbíonn cosaint ann don aosach, don naíonán agus don leanbh agus don té a bhfuil a chuid córas faoi strus de bharr breoiteachta.

D'fhonn an éifeacht a bhainfeadh le géarnochtadh a mheas, ní mór na leibhéil nochta is airde (nochtadh den 97.5^{ú} peircintíl) ba dhócha in aon lá amháin agus an éifeacht a bheadh ag nochtadh den sórt sin ar an tsláinte a thabhairt faoi mheas. Níl na teicnící ba ghá do mheasúnuithe dá leithéid chomh forbartha céanna leo siúd a bhaineann le nochtadh ainsealach. I gcás tráchtearraí a bhfuil méid ag baint le gach aonad díobh (e.g. mealbhacáin) nó aonaidh leathmhóra (e.g. torthaí ciotrais agus torthaí póma), is gá athraitheachas na n-iarmhar in aonaid ar leith den tráchtearra a thabhairt san áireamh. Bíonn sin riachtanach mar gheall go bhféadfadh sampla, i.e. déanta suas as íosmhéid de 1Cg d'úllaí, a ndéanfaí anailís air a bheith ilchineálach agus go mbeadh formhór an iarmhair in aon úll amháin. Glactar leis gurb é sin an cás is measa a tharlódh. Cuirtear fachtóir athraitheachais "v" i bhfeidhm ar na huasteorannacha iarmhair a aimsítear i samplaí ilchodacha a ndéantar anailís orthu chun an cás is measa ar fad a bhféadfaí teacht trasna air a chur san áireamh[25]. Faoi láthair níl aon aontú idir an AE agus an CODEX Alíomantarius maidir leis na figiúirí athraitheachais atá le cur i bhfeidhm ó shocraigh CODEX sa bhliain 2006 gur 3x an figiúr athraitheachais ba cheart a chur in úsáid go hidirnáisiúnta agus ba é seasamh aontaithe an AE i rith na gcainteanna sin gur 5x an figiúr ba cheart a chur in úsáid. Agus éifeacht ghéarnochtadh á mheasúnú, ní mór an leibhéal nochta a thabhairt san áireamh i ndáil le luach na Géar-Dháileoige Tagartha (GDT) atá leagtha síos do lotnaidicídí éagsúla faoi seach. Tugtar san áireamh leis na luachanna GDT, ar tomhas iad ar an uasleibhéal ionghabhála i rith aon lá amháin a meastar nach dtarlódh aon éifeacht díobhálach tocsaineolaíochta uaidh, fachtóir sábháilteachta d'fhonn cinntiú go mbíonn cosaint ann don aosach, don naíonán agus don leanbh agus don té a bhfuil a chuid córas faoi strus de bharr breoiteachta. Go dtí seo, tá luachanna GDT leagtha síos do líon teoranta lotnaidicídí. Tá nósanna imeachta fós á dtabhairt chun cinn go háirithe ag Comhchruinniú an FAO/WHO maidir le hIarmhair Lotnaidicíde (JMPR) agus ag leibhéal an AE d'fhonn caoinleasaithe ar an modheolaíocht a bhíonn in úsáid chun GDTanna a leagan síos.

B GNÁTHCHLÁR MONATÓIREACHTA

Léirítear le scrúdú ar thorthaí na monatóireachta i rith na bliana 2006, ar bhain anailís ar 1328 gnáthshampla, 252 spriocshampla, 3 shampla reachtúil agus 3 shampla gearáin leis, go raibh iarmhar lotnaidicíde inchainníochta in 38% de na samplaí gnáth-tháirge a cuireadh faoi anailís go raibh iarhair ba shárú ar na UTIanna reachtúla (Tábla 16) in 2.5% de na gnáthshamplaí sin. Ba i samplaí torthaí agus glasraí a aimsíodh an chuid is mó d'iarmhair lotnaidicíde seachas i mbia de bhunadh ainmhithe agus i samplaí gránaigh, áit a raibh an ráta aimsithe i bhfad níos ísle. Leibhéil an-ísle d'iarmhair

lotnaidicíde den chuid is mó a aimsíodh sna tráchtearraí go léir a dearnadh anailís orthu. Aimsíodh 906 éigin lotnaidicíd ag leibhéal iarmhair sna samplaí torthaí agus glasraí a ndearnadh anailís orthu. Bhí 347 (38% de na hiarmhair a aimsíodh) de na lotnaidicídí sin ag dlús < 0.05mg/kg, bhí 141 (16%) san raon dlúis ≥0.05 go dtí < 0.1mg/kg, bhí 137 (15%) sa raon dlúis ≥0.1 to < 0.2 mg/kg, bhí 124 (14%) sa raon ≥0.2 go dtí < 0.5 mg/kg agus bhí 157 (17%) i láthair ag leibhéal dlúis > 0.5 mg/kg. Cuirtear an t-eolas sin i láthair i bhFigiúr 3 thuas (leathanach 7). Léiríonn iarmhair lotnaidicíde ag leibhéil chomh híseal sin ardleibhéal comhlíonta na dtáirgeoirí maidir leis na cleachtais talmhaíochta molta i leith táirgí cosanta planda a úsáid, agus léiríonn sé freisin leochaileacht na dteicnící anailíse reatha atá in úsáid a cheadaíonn d'aimsiú iarmhair lotnaidicíde ag leibhéil thar a bheith ísle.

Tábla a 16:- Gnáthshamplaí le hiarmhair lotnaidicíde ab airde ná na hUasteorainneacha Lotnaidicíde (UTI) in 2006

Tráchtearra	Uimhir an tSampla	An Tír Bhunaidh	Iarmhar a aimsíodh	Iarmhar (mg/kg)	UTI (mg/kg)
Ciobhaí	68697	An Iodáil	Meitíodaitión	0.04	0.02
Lichi	69239	An Téalainn	Clóirpirifós	0.1	0.05
Mango	68855	An Bhrasaíl	Asocsastróibin	0.1	0.05
Anann	68730	Guatamala	Tiaibeindeasól	0.54	0.05
Pomegranate	69419	An Spáinn	Clóirpirifós	0.07	0.05
			Ciaipeirmeitrin	0.15	0.05
Rambutan	68821	An Téalainn	Ciaipeirmeitrin	0.09	0.05
Fraochán gorm	68715	An tSile	Feanvailéaráit	0.2	0.02
Mandairín	68843	An Chipir	Tiaibeindeasól	6.1	5
Mandairín	69415	Peiriú	Próicímeadón	0.03	0.02
Mandairín	69574	Peiriú	Próicímeadón	0.07	0.02
Oráiste	68657	An Éigipt	Ipróidé-ón	0.03	0.02
Oráiste	69305	An Spáinn	Tiaibeindeasól	6.9	5
Satsúma	69124	Peiriú	Próicímeadón	0.09	0.02
Cúirséad	68640	An Spáinn	Tiaibeindeasól	0.06	0.05
Leitís	68760	Éire	Demeton-s-me sulphone	0.16	0.05
Leitís	68792	Éire	Asocsastróibin	3.72	3.0
Leitís	69364	Éire	Óimeatóáit	0.49	0.5
			Démheitiáit	3.86	0.5
			Ciaipeirmeitrin	2.36	2.0
Leitís	69443	Éire	Próipisimíd	1.67	1.0
Spionáiste	69280	Éire	Cairbeandaisim	0.25	0.1
Úll	68973	An tSile	Déchófal	0.16	0.02
Cairéad	69434	Éire	Clóirfeinveanfos	0.51	0.5
Meacan Bán	68669	Éire	Lionúrón	0.21	0.2
Soilire	68967	An Spáinn	Próicímeadón	0.03	0.02
Péitseog	68971	Iosrael	Óimeatóáit	0.04	0.02
			Démheitiáit	0.02	0.02
Péitseog	69157	An Spáinn	Tiaibeindeasól	0.06	0.05
Pluma	68976	An tSile	Tiaibeindeasól	0.09	0.05

Léiríonn measúnú ar an ngaol idir ADInna agus an leibhéal iarmhair a fhaightear i ngnáthshamplaí, a sháraíonn TIUanna seanbhunaithe (Tábla 17), an baol do thomhaltóirí Éireannacha, idir dhaoine fásta agus leanaí, mar thoradh ar iarmhair den sórt sin a thógáil i mbia. Tagann na figiúirí ionghabhála aiste bia a úsáidtear do thráchtearraí aonair ó shuirbhé an Irish University National Alliance (IUNA) 1996-1998 ar an aiste bia do dhaoine fásta na hÉireann agus ó shuirbhé an IUNA "National Childrens Food Survey 2005" maidir le leanaí na hÉireann. Cuireadh measúnuithe ar ionghabháil aiste bia do leanaí na hÉireann san áireamh ó mhí Lúnasa 2006. Rinneadh an measúnú ar ionghabháil aiste bia do lotnaidicídí a bheadh tocsaineach go hainsealach agus meánsonraí ídithe á n-úsáid agus tríd an ionghabháil a chur i gcomparáid leis an ADI. Rinneadh an measúnú ar ionghabháil maidir leis na lotnaidicídí a bheadh tocsaineach go géar agus ionghabháil an 97.5ú peircintíle á úsáid agus tríd an ionghabháil a chur i gcomparáid leis an ARfD. Trí fhigiúirí ionghabhála den sórt sin a úsáid, tá na

figiúirí ionghabhála go léir is dócha a n-eascróidh, seachas iad sin a bheadh foircneach, curtha san áireamh agus meastóireacht á déanamh ar thionchar na n-iarmhar sin ar an aiste bia do thomhaltóirí na hÉireann.

I gcás tomhaltóirí nochtaithe d'iarmhair lotnaidicídí a bheadh tocsaineach go géar ní bheadh a sláinte i mbaol ach amháin dá sáródh a n-ionghabháil bia an ADI gach lá ar feadh tréimhse ama fada. Mar sin féin, de bharr go dtarlaíonn mí-úsáid agus go leantar ag aimsiú leibhéil iarmhar os cionn an TIU, is léir gur gá go leanfar leis na cláir monatóireachta agus imscrúdaithe maidir le sárú, agus go neartófar iad. Éilíonn RTIB ar úsáideoirí táirgí cosanta plandaí Dea-Chleachtas Talmhaíochta a chomhlíonadh agus iad á n-úsáid, lena chinntiú nach mbeidh leibhéil iarmhair lotnaidicídí doghlactha i dtáirgí bia.

Rinneadh cigireacht oifigiúil i gcás gach duine den 7 saothróir as Éireann a raibh táirgí sa mhargadh acu a sháraigh an TIU, le súil agus an fáth leis an sárú TIU a aimsiú. Tugadh rabhadh do na saothróirí sin go mbeadh siad faoi réir sampláil saindírithe i 2007.

Sa chás go raibh iarmhar a sháraigh TIU i dtáirge, cuireadh an sárú TIU in iúl do na húdaráis sa tír bhunaidh agus don allmhaireoir in Éirinn. Cuireadh in iúl dóibh freisin, sa chás go bhfaighfí an tráchtearra céanna ón bhfoinse céanna le díol in Éirinn go ndéanfaí anailís faoi leith air agus go mbeadh sé faoi réir gnímh reachtúil dá mbeadh gá leis.

Léiríonn meastóireacht ar na sonraí monatóireachta go bhfuil torthaí iarmhair a fuarthas i 2006 inchomparáide i gcónaí leis na sonraí a fuarthas i mblianta roimhe sin. Tháinig laghdú ar an líon samplaí torthaí agus glasraí nach raibh aon iarmhair lotnaidicíde inbhraite iontu ó 56% i 2003 go dtí 48% i 2004 agus laghdaigh sin arís go dtí 43% i 2005. Tháinig ardú ar an gcéatadán de na samplaí torthaí agus glasraí nach raibh iarmhair inbhraite iontu go dtí 48.2% arís i 2006. Ina theannta sin, má chuirtear an líon níos mó d'iarmhair lotnaidicídí a fuarthas i samplaí, 153 i 2006, 148 i 2005, 118 i 2004 agus 89 don chuid is mó de 2003 san áireamh, bheifeá ag súil go n-ardódh an mhinicíocht braite iarmhair ar aon dul leis an acmhainneacht anailíse mhéadaithe. D'fhéadfadh sé go léiríonn an cúlú sa treocht sin a tharla i 2006 go bhfuil níos lú lotnaidicídí á gcur ar bharraí bia saothraithe ach beidh sonraí ó na blianta amach romhainn ag teastáil lena chinneadh cibé an treocht é sin i ndáiríre nó an gnáth-athrú é ar na patrúin iarmhair a fhaightear.

Ba é an líon gnáthshamplaí de bhia de bhunadh ainmhí a ndearnadh anailís orthu i 2003, 2004, 2005 agus 2006 ná 371, 372, 376 agus 367 faoi seach. I gcás bia de bhunadh ainmhí, tá an líon agus an raon lotnaidicídí a fuarthas i 2006 ag teacht leo sin a fuarthas i mblianta roimhe sin. Braitheadh dhá shárú TIU i gcaora amháin agus ceann amháin i muiceoil. Bhain an sárú TIU i gcaoraigh leis an eictea-pharaisíticíd dé-aisionón a bheith i láthair agus léirigh sé úsáid mícheart dip chaorach ceadaithe.

Sáraíodh an TIU do liondán maidir le saill muiceola. Níl liondán ceadaithe le húsáid in Éirinn agus mar sin rinneadh imscrúdú ar an tarlú. Rinneadh anailís ar bhia muc agus ar chomhábhair bhia muc, a soláthraíodh don aonad táirgthe, agus fuarthas nach raibh iarmhair liondáin iontu agus mar sin measadh nárbh iad foinse an iarmhair sin. Maraíodh dhá mhuc eile ón aonad táirgthe agus rinneadh anailís ar shamplaí lena chinneadh an raibh iarmhair fágtha iontu ag luachanna níos airde ná an TIU. Bhí rianleibhéil liondáin a bhí níos ísle ná an TIU sna samplaí sin. Thángthas ar an tátal go raibh leibhéal íseal d'éilliú liondáin fós san aonad táirgthe muc ach de bharr gur thit na hiarmhair go dtí leibhéal níos ísle ná an TIU níor theastaigh aon ghníomh breise chun déileáil leis an gceist.

Thug measúnú ar ionghabháil liondáin san aiste bia ón bhfoinse sin le fios nár chruthaigh sé aon ábhar imní ó thaobh ionghabhála do thomhaltóirí na hÉireann.

Maidir leis na samplaí gránaigh a ndearnadh anailís orthu taifeadadh ardú ar an líon samplaí a raibh iarmhair lotnaidicídí iontu i 2006 i gcomparáid le 2005 agus le blianta roimhe sin. Bhí iarmhair lotnaidicíde i 17% de shamplaí in 2005, agus in 2006 tá méadú suntasach de 38% tagtha ar an minicíocht bhraite iarmhair i gcomparáid le blianta roimhe sin. I gcodarsnacht le blianta roimhe sin, fuarthas iarmhair dé-aisionóin a sháraigh an TIU i gcúig sampla coirce a úsáideadh chun cáilíocht an ghránaigh a sheiceáil. Thug imscrúdú ar fhoinse na n-iarmhar dé-aisionóin sin le fios gur dócha gur éillíodh na samplaí cáilíochta gránaigh sin ag point éigin laistigh den stóras. Thug samplaí breise coirce a tugadh ó stóir agus ó stórais ghránaigh faoi leith laistigh den cheannáras céanna easpa iarmhar dé-aisionóin le fios. Bhí samplaí den táirge próiseáilte ón áitreabh sin saor ó iarmhar dé-aisionóin chomh maith. Thug measúnú ar thionchar na n-iarmhar sin ar an aiste bia le fios nár chuir siad bagairt nach féidir glacadh leis do shábháilteacht thomhaltóirí na hÉireann.

Tháinig saincheist eile chun cinn in 2006 nuair a braitheadh iarmhair chlórprófaim i ngránach coirce. Níl clórprófam údaraithe in Éirinn le húsáid ar choirce ná ar aon bharr gránaigh eile. Tugadh le fios le teacht ar iarmhair den sórt sin go raibh úsáid mhídhleathach clórprófaim nó droch-chleachtas talmhaíochta ann agus gur éillíodh na coirce le hiarmhair clórprófaim dá bharr. Léirigh imscrúduithe nasc idir na coircí agus áit táirgthe faoi leith agus tuairiscíodh na torthaí chuig na Rannáin RTIB iomchuí.

Measadh gur rud neamhghnách é gur braitheadh iarmhair dé-aisionóin agus clórprófaim i gcoircí agus nár dócha go dtarlódh sé arís. Dá mbainfí an líon samplaí gránaigh a raibh na hiarmhair sin iontu ó fhigiúirí iomlána 2006 bheadh an % samplaí gránaigh a raibh iarmhair lotnaidicídí iontu, ag 17.3%, ag teacht leis na leibhéil a fuarthas in 2005.

Seachas iarmhair dé-aisionóin agus clórprófaim a bheith i láthair i ngránaigh tá an chuid eile de na hiarmhair lotnaidicíde a braitheadh ag teacht leis na cinn a fuarthas i mblianta roimhe seo. Tugann meastóireacht ar thionchar na n-iarmhar a fuarthas ar an aiste bia le fios nach raibh baol nach féidir glacadh leis ann do thomhaltóirí na hÉireann ó na hairmahir a fuarthas.

Tá an pátrún iarmhair lotnaidicíde i dtorthaí agus i nglasraí ó 2006 cosúil go maith lena bhfuarthas in 2005 agus i mblianta roimhe sin. Léiríonn anailís ar na torthaí

- Go ndearnadh anailís ar 76 cineál torthaí agus glasraí in 2006 i gcomparáid le 71 in 2005, 77 in 2004 agus 76 in 2003;
- Gur braitheadh líon beagánín níos ísle comhdhúile lotnaidicíde; 73 in 2006 i gcomparáid le 75 in 2005. Tá sin ag teacht leis na samplaí anailíse saotharlanna do líon comhchosúil iarmhar lotnaidicíde in 2006 agus in 2005;
- Go raibh an céatadán de na táirgí a ndearnadh sampláil agus anailís orthu sa chlár monatóireachta 2006 (81.5%) beagáinín níos airde ná na huimhreacha a ndearnadh anailís orthu sna trí bliana roimhe sin [77% in 2005, 72% in 2004 agus 76% in 2003];
- Go bhfuil an céatadán de thorthaí agus glasraí amha a raibh iarmhair lotnaidicíde iontu sa ghnáthchlár monatóireachta 2006, ag 48%, níos ísle ná in 2005 (56%) agus in 2004 (52%) ach níos airde ná in 2003 (44%). go bhféadfadh sé go dtugann sin le fios go bhfuil laghdú tagtha ar úsáid táirgí cosanta plandaí ach beidh sonraí ó na blianta amach romhainn ag teastáil lena chinneadh cibé an treocht é sin i ndáiríre nó an gnáth-athrú é a tharlaíonn idir blianta.

- Gur fiú a thabhairt ar aird go bhfuil an céatadán samplaí torthaí agus glasraí a raibh iarmhair lotnaidicíde níos airde ná an TIU iontu do 2006 (2.9%), níos ísle ná luach 2005 de 5.1% agus tagann sé níos mó leis na huimhreacha a fuarthas in 2004 agus 2003, inar taifeadadh luachanna de 3.5% agus 3.6% faoi seach. Is fiú a thabhairt ar aird gur 5% an céatadán samplaí de tháirgí úra a sháraigh TIU lotnaidicíde, mar a tuairiscíodh sa tuarascáil AE do 2004, rud a sháraíonn na luachanna thuasluaite. Gur eascair roinnt sáruithe TIU as úsáid mhídhleathach táirgí cosanta plandaí ar tháirgí arna bhfás san AE agus i gcás táirgí ón tríú tír go mb'fhéidir go léiríonn sé easpa armónaithe sa reachtaíocht TIU, aineolas ar chaighdeáin an AE sna tríú tíortha iomchuí nó díreach mí-úsáid na táirge cosanta plandaí a úsáidtear. Baineann 15% de na sáruithe TIU le táirgí na Spáinne, figiúir atá cosúil leis an

  18% a bhí ann do 2005. Ní thugann sin le fios go bhfuil fadhb faoi leith ann le táirgí na Spáinne ach léiríonn sé an méid ard torthaí agus glasraí a iompraítear ón Spáinn go dtí Éire. As an 178 sampla éagsúil ón Spáinn a ndearnadh anailís orthu in 2006, bhí iarmhair lotnaidicíde a sháraigh an TIU i 2.2% díobh. Tá sin níos lú ná luach iomlán na sáruithe TIU do 2006.

- Go dtagann an mhinicíocht ar braitheadh lotnaidicídí faoi leith i dtorthaí agus i nglasraí i rith 2006 leis an bpátrún a braitheadh in 2005, 2004, 2003 agus 2002 sa chaoi is gurb iad tiaibeindeasól, ipróidé-ón, clóraipireafos agus captan na lotnaidicídí is coitianta a bhraitear i gcónaí. Tugadh Défheiniolaimín isteach sa chlár anailíseach in 2005 agus tá an mhinicíocht braite in 2006 de 5.5% de samplaí (torthaí póma go príomha) inchomparáide le figiúr 2005 de 7.1%. I gcás cairbeandaisim is díol suntais é gur tháinig laghdú ar an minicíocht bhraite iarmhair ó 10.4% de shamplaí in 2005 go dtí 3.9% de shamplaí in 2006 agus caithfear sin a lua le laghdú san úsáid beinimile agus cairbeandaisime i dtáirgí cosanta plandaí.

- Gur áiríodh daichead a naoi sampla de thorthaí agus de ghlasraí orgánacha i gclár monatóireachta 2006. Bhí iarmhair lotnaidicíde inbhraite in ocht gcinn de na samplaí sin. Is ionann an mhinicíocht bhraite iarmhair lotnaidicíde sin, de 16%, agus ardú ar na luachanna comhfhreagracha a fuarthas in 2005 agus in 2004 nuair ab ionann an ráta braite agus 7.5% agus 9% faoi seach. Scaipeadh na torthaí dearfacha ar an rannóg iomchuí in RTIB le freagracht as táirgí orgánacha a rialú le súil go rachfadh siad i mbun an ghnímh chuí. Ní raibh saincheist sábháilteachta do thomhaltóirí ar bith ag baint leis na hiarmhair sin mar nach raibh ann ach leibhéil an-ísle.

- Go ndearnadh anailís d'iarmhar lotnaidicíde ar nócha dó sampla de bhia próiseáilte in 2006, ar thorthaí agus glasraí próiseáilte ochtó cúig díobh sin agus ar ghránaigh phróiseáilte seacht gcinn díobh. Tá sin i gcomparáid leis an gcaoga sampla de bhia próiseáilte [daichead a ceathair torthaí próiseáilte agus súnna glasraí agus sé chinn de ghránaigh phróiseáilte] a ndearnadh anailís orthu in 2005 agus leis an seasca dó sampla a ndearnadh anailís orthu in 2004. Tá torthaí 2006 cosúil le torthaí 2005 agus 2004 sa chaoi is go leanann siad le minicíocht níos ísle de bhrath iarmhair lotnaidicíde i dtáirgí próiseáilte seachas i dtráchtearraí ama a léiriú. Bhí iarmhair lotnaidicíde inbhraite i gcúig shampla de thorthaí/glasraí próiseáilte agus i sampla amháin de chalóga coirce agus de mhin choirce. Bhí leibhéil iarmhair lotnaidicíde ísle idir 0.02 go dtí 0.2mg/kg i ngach ceann de na samplaí. Bhí iarmhair lotnaidicíde inbhraite i 7.6% de na samplaí próiseáilte; minicíocht níos ísle ná an 14% a fuarthas a raibh iarmhair inbhraite iontu in 2005.

Cuireadh beagán le scóip an chláir mhonatóireachta lotnaidicíde in 2006, i gcomparáid le 2005, nuair a rinneadh anailís ar 153 lotnaidicíd éagsúil agus a meitibilítí.

Maidir leis an neastodhchaí, díreoidh an SRL ar cur níos mó le hacmhainneacht na saotharlainne an líon iarmhair lotnaidicíde i samplaí bia, a bhíonn ag méadú i gcónaí, a chinneadh. De bharr an aistriú saotharlainne ó Bhaile an Aba go dtí Bacastún in 2005 cuireadh cosc ar aon fhorbairt modha in 2005 agus mar sin bhí an acmhainneacht anailíse in 2006 cosúil le leibhéil 2005. Thosaigh obair bailíochtaithe bhreise an athuair in 2006 agus beidh mar thoradh uirthi méadú suntasach ar acmhainneacht anailíse na saotharlainne do 2007 agus do chláir mhonatóireachta amach anseo.

Is iad na pleananna reatha don Saotharlann Rialaithe Lotnaidicíde

i an líon samplaí atá ar an sceideal le hanailís a dhéanamh orthu in 2007 a choimeád ag thart ar 1300;

ii cur leis an líon lotnaidicídí sa chlár monatóireachta do 2007 agus ina dhiaidh sin;

iii leanúint ar aghaidh ag obair ag leibhéal AE chun cur leis an raon lotnaidicídí a bhfuil TIUanna bunaithe ina leith agus a chinntiú go n-achtófar Rialachán (CE) Uimh. 396/2005 chomh luath agus is féidir.

Leanfaidh an SRL den RTIB agus den USBÉ le cainteanna leanúnacha, mar chuid den chonradh seirbhíse idir an dá eagraíocht, le súil agus an clár monatóireachta bliantúil maidir le hiarmhair lotnaidicíde i mbia a optamú agus an baol do thomhaltóirí a d'fhéadfadh a bheith ag na hiarmhair sin a mheas. Leanfaidh an clár seo ar aghaidh le moltaí ón gCoimisiún Eorpach a chur san áireamh maidir leis an raon barr agus lotnaidicídí atá i gceist.

C AN CLÁR UM IMSCRÚDÚ SÁRAITHE

Is í sampláil saindírithe ar tháirgí a fhaightear a bheith ag sárú TIUanna seanbhunaithe an príomhbhealach lena chinneadh cibé an eascraíonn sáruithe as mí-úsáid córasach lotnaidicídí nó an imeachtaí faoi leith iad. Is léir nach féidir glacadh leis an tarlú leantach de leibhéil iarmhair ró-ard a bheith i dtráchtearraí bia faoi leith, rud a chuirfeadh isteach ar shábháilteacht tomhaltóirí. Tá an clár um imscrúdú sáraithe dírithe ar dheireadh a chur le mí-úsáid den sórt sin. Tá an clár leagtha amach lena chinntiú, i gcás tarluithe ina sáraítear TIUanna, nach dtarlóidh sé arís.

Sa bhliain 2006, tógadh 13 sampla de thorthaí agus glasraí, 27 sampla de bhia ainmhithe/muiceoil, 211 sampla d'arbhar gránaigh agus 4 sampla de tháirgí gránaigh mar chuid de chláir imscrúdaithe saindírithe a rinne an tSaotharlann Rialú Lotnaidicídí.

Sa chás go bhfaightear iarmhair lotnaidicíde a sháraíonn TIU an AE i dtáirgí, bíonn sé mídhleathach táirgí den sórt sin a chur ar an margadh agus beidh táirgí den sórt sin, má aimsítear iad, faoi réir pionóis faoin reachtaíocht iarmhair lotnaidicíde reatha.

- Bhí iarmhair lotnaidicíde a sháraigh TIUanna reachtúla i sampla de leitís ó Éirinn a tógadh mar chuid den imscrúdú saindírithe agus baineadh ón margadh agus scriosadh í.
- Fuarthas iarmhair cairbeandaisime nach bhfuil údaraithe le húsáid ar shú talún in Éirinn i sampla sú talún saindírithe. Cuireadh an táirgeoir faoi réir cigireachta agus tugadh rabhadh dó maidir le táirgí cosanta plandaí mídhleathacha a úsáid. Díreofar ar tháirgí ón táirgeoir sin i gclár 2007 lena chinntiú go mbeidh an reachtaíocht á comhlíonadh aige.
- Thug an anailís saindírithe ar bhia muc agus ar chomhábhair bhia muc le fios nach foinse iad de na leibhéil ísle éillithe liondáin a bhí i láthair i muca a tháinig ó aonad táirgthe muc. Thug an anailís ar shamplaí breise de mhuca ón aonad sin le fios gur tháinig díghrádú go dtí leibhéal cúlra ar an leibhéal éillithe agus mar sin nárbh fhéidir aon ghníomh eile a dhéanamh.
- Ní rabhthas ag súil leis an aimsiú iarmhar clórprófaim i gcoircí i rith 2006 de bharr nach bhfuil an ceimiceán sin ceadaithe le húsáid ar aon bharr gránaigh agus léirigh sé gur tharla úsáid mí-dhleathach nó gur éillíodh na coircí ag pointe éigin i rith an timthrialla táirgeachta nó sábhála. Luaigh dian-imscrúdú coircí éillithe le saothróir amháin ach níorbh fhéidir a chinneadh cibé ar éilliú de thimpiste nó d'aonghnó a bhí ann. Déanfar monatóireacht arís in 2007 lena sheiceáil nach dtarlóidh sé sin arís.
- Fuarthas iarmhair dé-aisionóin i roinnt samplaí coirce a ndearnadh anailís orthu i rith 2006 chomh maith. Léirigh imscrúdú saincheist logánta laistigh den stóras ina raibh iarmhair dé-aisionóin i méideanna fíor-bheaga coirce. Dhearbhaigh sampláil agus anailís bhreise nach raibh dé-aisionón i láthair i gceachtar de na táirgí nó in aon ghránach eile a bhí stóráilte sa láithreán sin.

Déantar measúnú ar ionghabháil aiste bia tomhaltóirí i ngach cás ina sháraítear TIU. Go dtí seo ní dhearnadh an ríomhadh seo ach amháin do dhaoine fásta na hÉireann ach ó tá eolas suirbhé ar aiste bia leanaí na hÉireann ar fáil tá an baol do leanaí na hÉireann san áireamh i ngach measúnú ar riosca ó mhí Lúnasa 2006. I gcás sampla amháin a ndearnadh ar chairéid ina raibh iarmhair clóirfeinveanfois, thug an ionghabháil aiste bia ríofa le fios go raibh sárú an ADI agus an ArfD i gceist do leanaí na hÉireann. Nuair a chuimhnítear go laghdaítear an nochtadh faoi suas le 90% tríd an gcraiceann agus an barr a bhaint ó chairéid, áfach, measadh nach raibh ach baol fíor-bheag ann do leanaí. Tugtar na measúnuithe ionghabhála aiste bia do gach sárú TIU a fuarthas i dTábla 17 thíos.

Tábla 17 :-An coibhneas idir leibhéil iomarcacha iarmhair agus na leibhéil ILI agus ArfD do Dhaoine Fásta na hÉireann.

Uimhir an tSampla	Grúpa tomhaltóirí	Tráchtearra	Tír Bhunaidh	Lotnaidicíd	UTI (mg/kg)	Iarmhar (mg/kg)	Meán-Ionghabháil tráchtearra. (kg/day)	ILI(mg/kg bw/lae)	Ionghábháil mar % an ILI	97.5 % ile aiste bia tráchearra (kg/lae)	ARfD (mg/kg bw/lae) [NR = níl riachtanach]	Ionghábháil mar % den ARfD
		Saill Dúáin										1.1
67712	daoine fásta	Caorach	Éire	Dé-aisionón	0.7	2.03	0.003	0.0002	45	0.0001	0.025	
67766	daoine fásta	Saill Muice	Éire	Liondán	0.02	0.04	0.003	0.005	0.04	0.009	0.06	0
68640	daoine fásta	Cúirséad	An Spáinn	Tiaibeindeasól	0.05*	0.06	0.01	0.1	0.01	0.38	NR	
68669	daoine fásta	Meacan bán	Éire	Lionúrón	0.2	0.21	0.013	0.003	1.5	0.05	NR	
68697	daoine fásta	Ciobhaí	An Iodáil	Meitideaitión	0.02*	0.04	0.02	0.001	1.3	0.1	0.01	3.2
68715	daoine fásta	Fraochán gorm	An tSile	Feanvailéaráit	0.02*	0.2	0.003	0.02	0.05	0.01	NR	
68730	daoine fásta	Anann	Guatamala	Tiaibeindeasól	0.05	0.54	0.021	0.1	0.2	0.09	NR	
68760	daoine fásta	Leitís	Éire	Oxy-dem-S-me	0.02*	0.16	0.006	0.0003	5	0.03	0.005	6.9
68792	daoine fásta	Leitís	Éire	Asocsastróibin	3	3.72	0.006	0.1	0.4	0.03	NR	
68821	daoine fásta	Rambutan	An Téalainn	Ciaipeirmeitrin	0.05	0.09	0.003	0.05	0.01		NR	
68843	daoine fásta	Mandairín	An Chipir	Tiaibeindeasól	5	6.13	0.039	0.1	4	0.1	NR	
68855	daoine fásta	Mango	An Bhrasaíl	Asocsastróibin	0.05	0.1	0.003	0.1	0.01	0.01	NR	
68967	daoine fásta	Soilire	An Spáinn	Próicímeadón	0.02	0.03	0.01	0.025	0.02	0.06	0.035	0.3
68971	daoine fásta	Péitseog	Iosrael	Démheitiáit	0.02*	0.02	0.043	0.002	0.7	0.2	0.03	1
68971	daoine fásta	Péitseog	Iosrael	Óimeatóáit	0.02*	0.04	0.043	0.0003	9.6	0.2	0.004	14.4
68973	daoine fásta	Úll	An tSile	Déchófal	0.02*	0.16	0.054	0.002	7.2	0.191	0.1	2.1
68976	daoine fásta	Pluma	An tSile	Tiaibeindeasól	0.05*	0.09	0.01	0.1	0.02	0.187	NR	
69124	daoine fásta	Satsúma	Peiriú	Próicímeadón	0.02	0.09	0.043	0.025	0.3	0.1	0.035	3.2
69157	daoine fásta	Péitseog	An Spáinn	Tiaibeindeasól	0.05	0.06	0.043	0.1	0.04	0.2	NR	
69239	daoine fásta	Litchi	An Téalainn	Clóraipireafos	0.05*	0.1	0.004	0.01	0.07	0.006	0.1	0.1
69280	daoine fásta	Spionáiste	Éire	Cairbeandaisim	0.1*	0.25	0.009	0.02	0.2	0.04	0.02	5.7
69305	daoine fásta	Oráiste	An Spáinn	Tiaibeindeasól	5	6.92	0.078	0.1	9.	0.3	NR	
69364	daoine fásta	Leitís	Éire	Démheitiáit	0.5	3.86	0.0016	0.002	5	0.002	0.03	1.3
	daoine fásta	Leitís	Éire	Óimeatóáit	0.5	0.14	0.0016	0.0003	1	0.002	0.004	28.2
	leanaí	Leitís	Éire	Démheitiáit	0.5	3.86	0.0016	0.002	5	0.002	0.03	1.3
	leanaí	Leitís	Éire	Óimeatóáit	0.5	0.49	0.0016	0.0003	4	0.002	0.004	98
	duine fásta	Leitís	Éire	Ciaipeirmeitrin	2	2.36	0.006	0.03	0.8	0.03	NR	
69403	daoine fásta	Leitís	Éire	Démheitiáit	0.5	0.86	0.006	0.002	4	0.03	0.03	6.3
	daoine fásta	Leitís	Éire	Óimeatóáit	0.5	0.14	0.006	0.0003	5	0.03	0.004	7.6
	leanaí	Leitís	Éire	Démheitiáit	0.5	0.86	0.0005	0.002	22	0.002	0.03	22.9
	leanaí	Leitís	Éire	Óimeatóáit	0.5	0.14	0.0005	0.0003	23	0.002	0.004	28
69415	daoine fásta	Mandairín	Peiriú	Próicímeadón	0.02*	0.03	0.0007	0.025	0.09	0.003	0.035	0.8
	leanaí	Mandairín	Peiriú	Próicímeadón	0.02*	0.03	0.0034	0.025	0.41	0.01	0.035	2.9
69419	daoine fásta	Pomegranate	An Spáinn	Clóraipireafos	0.05*	0.07	0.003	0.01	0.04	0.0002	0.1	0.1
	daoine fásta	Pomegranate	An Spáinn	Ciaipeirmeitrin	0.05*	0.15	0.003	0.05	0.02	0.0002	0.2	0.1
	leanaí	Pomegranate	An Spáinn	Clóraipireafos	0.05*	0.07	0.0002	0.01	0.14	0.0007	0.1	0.2
	leanaí	Pomegranate	An Spáinn	Ciaipeirmeitrin	0.05*	0.15	0.0002	0.05	0.06	0.0007	0.2	0.3
69434	daoine fásta	Cairéad	Éire	Clórfeinvinfos	0.5	0.51	0.0004	0.0005	41	0.001	0.01	31
	leanaí	Cairéad	Éire	Clórfeinvinfos	0.5	0.51	0.0018	0.0005	184**	0.005	0.01	125**
69443	daoine fásta	Leitís	Éire	Próipisimíd	1	1.67	0.0001	0.02	0.92	0.002	NR	
	leanaí	Leitís	Éire	Próipisimíd	1	1.67	0.0005	0.02	4.18	0.002	NR	

Uimhir an tSampla	Grúpa tomhaltóirí	Tráchtearra	Tír Bhunaidh	Lotnaidicíd	UTI (mg/kg)	Iarmhar (mg/kg)	Meán-Ionghabháil tráchtearra. (kg/day)	ILI(mg/kg bw/lae)	Ionghábháil mar % an ILI	97.5 % ile aiste bia tráchearra (kg/lae)	ARfD (mg/kg bw/lae) [NR = níl riachtanach]	Ionghábháil mar % den ARfD
69574	daoine fásta	Mandairín	Peiriú	Próicímeadón	0.02	0.07	0.043	0.025	0.20	0.1	0.035	1.8
	leanaí	Mandairín	Peiriú	Próicímeadón	0.02	0.07	0.0034	0.025	0.95	0.01	0.035	1.4
69866	daoine fásta	Coirce	Éire	Dé-aisionón	0.02*	0.44	0.0003	0.0002	59	0.001	0.025	1.6
	leanaí	Coirce	Éire	Dé-aisionón	0.02*	0.44	0.0007	0.0002	55	0.002	0.025	4
69876	duine fásta	Coirce	Éire	Dé-aisionón	0.02*	1.22	0.0003	0.0002	165	0.001	0.025	4.5
	leanaí	Coirce	Éire	Dé-aisionón	0.02*	1.22	0.0003	0.0002	153	0.001	0.025	5.7
69877	duine fásta	Coirce	Éire	Dé-aisionón	0.02*	0.51	0.0003	0.0002	69	0.001	0.025	1.9
	leanaí	Coirce	Éire	Dé-aisionón	0.02*	0.51	0.0003	0.0002	64	0.001	0.025	2.4
69878	duine fásta	Coirce	Éire	Dé-aisionón	0.02*	0.04	0.0003	0.0002	5	0.001	0.025	0.1
	leanaí	Coirce	Éire	Dé-aisionón	0.02*	0.04	0.0003	0.0002	5	0.001	0.025	0.2
69879	duine fásta	Coirce	Éire	Dé-aisionón	0.02*	0.49	0.0003	0.0002	66	0.001	0.025	1.8
	leanaí	Coirce	Éire	Dé-aisionón	0.02*	0.49	0.0003	0.0002	61	0.001	0.025	2.3

* = léiríonn an teorainn chinntiúcháin.

** = Níl ARfD comhaontaithe idirnáisiúnta ar bith ann do chlóirfeinveanfos. Athbhreithníodh an luach léirithe a úsáidtear in Éirinn go dtí 0.01 mg/kg bw/lá; luach atá ag teacht leis an Ríocht Aontaithe agus leath an luacha a úsáidtear san Astráil. Athbhunaíodh an MRL AE do chlóirfeinveanfos i gcairéid in 2006 ag 0.5 mg/kg. Tiocfaidh deireadh leis an úsáid údaraithe de tháirgí ina bhfuil clóirfeinveanfos maidir le cairéid in Éirinn ag deireadh 2007.

D FOCAL SCOIR

Tá an Roinn Talamhaíochta Iascaigh agus Bia agus Údarás Sábháilteacht Bia na hÉireann tiomanta do threisiú ar na cláir mhonatóireachta maidir le hiarmhar lotnaidicíde i mbia agus, dá réir sin, chomh fada agus a bhaineann le hiarmhar lotnaidicíde, do chinntiú shábháilteacht an bhia don tomhaltóir agus do chinntiú chaighdeán an bhia a chuirtear ar díol.

Aithreantais:

Ba le díogras J. Acton, J. Garvey, F. O'Reagan, M. Lynch agus D. O'Sullivan a tiomsaíodh an tuarascáil seo. P. Carey, P. Killarney, M. B. Dolan, K. Armstrong, J. Conway agus baill de chuid na gCigirí Eolaíochta Déiríochta agus Tréidliachta a thug na cláir samplála agus imscrúdaithe i gcrích. J. Acton, J. Garvey, F. O'Regan, J. McGannon, D. Carr, F. Morrin, M. Kelly, T. Walsh, D. Smyth, E. Connolly, J. Coloe, W. Cummins, A. Kennedy, M. Graham, A. Ryan agus D. Harris a chuir na torthaí anailíse ar fáil.

AGUISÍN I RIALACHÁIN LENA SOCRAÍTEAR UASLEIBHÉIL IARMHAIR LOTNAIDICÍDÍ I dTÁIRGÍ TALMHAÍOCHTA

1 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Torthaí agus Glasraí), 1989, IR Uimh. 105 de 1989

2 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Torthaí agus Glasraí) (Leasú), 1997, IR Uimh. 218 de 1997

3 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Torthaí agus Glasraí) (Leasú), 1998, IR Uimh. 563 de 1998

4 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Torthaí agus Glasraí) (Leasú), 2002, IR Uimh. 526 de 2002

5 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Torthaí agus Glasraí) (Leasú), 2003, IR Uimh. 356 de 2003

6 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Torthaí agus Glasraí) (Leasú), 2004, IR Uimh. 120 de 2004

7 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Ábhair Bheatha), 1992, IR Uimh. 40 de 1992

8 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí), 1999, IR Uimh. 179 de 1999

9 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 1999, IR Uimh. 458 de 1999

10 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2000, IR Uimh. 461 de 2000.

11 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2000, IR Uimh. 462 de 2000.

12 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2001, IR Uimh. 256 de 2001.

13 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2001, IR Uimh. 621 de 2001

14 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2002, IR Uimh. 535 de 2002

15 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2003, IR Uimh. 271 de 2003

16 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2003, IR Uimh. 384 de 2003

17 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2004, IR Uimh. 134 de 2004

18 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2004, IR Uimh. 231 de 2004

19 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2005, IR Uimh. 173 de 2005

20 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2005, IR Uimh. 551 de 2005

21 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2005, IR Uimh. 696 de 2005

22 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2005, IR Uimh. 266 de 2006

23 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2005, IR Uimh. 464 de 2006

24 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Táirgí de Bhunadh Plandaí, lena n-áirítear Torthaí agus Glasraí) (Leasú), 2005, IR Uimh. 107 de 2006

25 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch), 1999, IR Uimh. 180 de 1999

26 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 1999, IR Uimh. 460 de 1999

27 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2000, IR Uimh. 460 de 2000

28 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2000, IR Uimh. 249 de 2001.

29 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2000, IR Uimh. 620 de 2001

30 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2002, IR Uimh. 534 de 2002

31 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2003, IR Uimh. 270 de 2003

32 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2003, IR Uimh. 385 de 2003

33 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2004, IR Uimh. 118 de 2004

34 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2004, IR Uimh. 239 de 2004

35 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2005, IR Uimh. 698 de 2005

36 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2005, IR Uimh. 106 de 2006

37 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2005, IR Uimh. 259 de 2006

38 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Earraí Bia de Bhunadh Ainmhíoch) (Leasú), 2005, IR Uimh. 489 de 2006

39 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh), 1999, IR Uimh. 181 de 1999

40 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 1999, IR Uimh. 459 de 1999

41 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2000, IR Uimh. 459 de 2000

42 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2001, IR Uimh. 250 de 2001

43 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2001, IR Uimh. 622 de 2001

44 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2002, IR Uimh. 533 de 2002.

45 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2003, IR Uimh. 386 de 2003.

46 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2004, IR Uimh. 119 de 2004

47 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2004, IR Uimh. 240 de 2004

48 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2004, IR Uimh. 552 de 2005

49 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2005, IR Uimh. 697 de 2005

50 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2004, IR Uimh. 108 de 2006

51 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2004, IR Uimh. 260 de 2006

52 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) (Gránaigh) (Leasú), 2004, IR Uimh. 492 de 2006

53 Rialacháin na gComhphobal Eorpach (Iarmhair Lotnaidicídí) 2005, I.R. Uimh. 654 de 2006

AGUISÍN II TREORACHA DE CHUID AN CE LENA SOCRAÍTEAR UASLEIBHÉIL IARMHAIR LOTNAIDICÍDÍ I dTÁIRGÍ TALMHAÍOCHTA

1 Treoir ón gComhairle dar dáta an 23 Samhain 1976 a bhaineann le huasleibhéil a shocrú d'iarmhair lotnaidicídí i dtorthaí agus i nglasraí agus ar thorthaí agus ar ghlasraí. (76/895/CEE) OJ Uimh. L340 de 9.12.1976,

agus Treoracha leasaithe -

79/700/CEE de 24 Iúil 1979	OJ Uimh. L207 de 15.8.1979
80/428/CEE de 28 Márta 1980	OJ Uimh. L102 de 19.4.1980
81/36/CEE de 9 Feabhra 1981	OJ Uimh. L46 de 19.2.1981
82/528/CEE de 19 Iúil 1982	OJ Uimh. L234 de 9.8.1982
88/298/CEE de 16 Bealtaine 1988	OJ Uimh. L126 de 20.5.1988
89/186/CEE de 6 Márta 1989	OJ Uimh. L66 de 10.3.1989
93/58/CEE de 29 Meitheamh 1993	OJ Uimh. L211 de 23.8.1993
Corrigendum ar 93/58/CEE	OJ Uimh. L219 de 24.8.1994
96/32/EC de 21 Bealtaine 1996	OJ Uimh. L144 de 18.6.1996
97/41/EC de 25 Meitheamh 1997	OJ Uimh. L184 de 12.7.1997
2000/24/EC de 28 Aibreán 2000	OJ Uimh. L107 de 04.05.2000
2000/42/EC de 22 Meitheamh 2000	OJ Uimh. L158 de 30.06.2000
2000/48/EC de 25 Iúil 2000	OJ Uimh. L197 de 03.08.2000
2000/57/EC de 22 M. Fómh 2000	OJ Uimh. L244 de 29.09.2000
2000/82/EC de 20 Nollaig 2000	OJ Uimh. L3 de 06.01.2001
2002/66/EC de 16 Iúil 2002	OJ Uimh. L192 de 20.07.2002
2002/71/EC de 19 Lúnasa 2002	OJ Uimh. L225 de 22.08.2002
2002/79/EC de 02 D. Fómhair 2002	OJ Uimh. L291 de 28.10.2002
2003/60/EC de 18 Meitheamh 2003	OJ Uimh. L155 de 24.06.2003
2003/118/EC de 05 Nollaig2003	OJ Uimh. L324 de 11.12.2003
2005/37/EC de 03 Meitheamh 2005	OJ Uimh. L141 de 04.06.2005
2005/46/EC de 08 Iúil 2005	OJ Uimh. L177 de 09.07.2005
2005/70/EC de 20 D. Fómhair 2005	OJ Uimh. L276 de 21.10.2005
2006/59/EC de 28 Meith 2006	OJ Uimh. L175 de 29.06.2006
2006/62/EC de 12 Iúil 2006	OJ Uimh. L206 de 27.07.2006
2006/92/EC de 09 Samhain 2006	OJ Uimh. L311 de 10.11.2006

2 Treoir ón gComhairle dar dáta an 24 Iúil 1986 maidir le huasleibhéil a shocrú d'iarmhair lotnaidicídí i ngráinsigh agus ar ghráinsigh. (86/362/CEE) OJ Uimh. 221 de 7.8.1986

agus Treoracha leasaithe -

88/298/CEE de 16 Bealtaine 1988	OJ Uimh. L126 de 20.5.1988
93/57/CEE de 29 Meitheamh 1993	OJ Uimh. L211 de 23.8.1993
94/29/EC de 23 Meitheamh 1994	OJ Uimh. L189 de 23.7.1994
95/39/EC de 17 Iúil 1995	OJ Uimh. L197 de 22.8.1995
Corrigendum ar 95/39/EC	OJ Uimh. L164 de 3.7.1996
96/33/EC de 21 Bealtaine 1996	OJ Uimh. L144 de 18.6.1996
97/41/EC de 25 Meitheamh 1997	OJ Uimh. L184 de 12.7.1997
97/71/EC de 15 Nollaig 1997	OJ Uimh. L347 de 18.12.1997
98/82/EC de 27 D. Fómhair 1998	OJ Uimh. L290 de 29.10.1998
1999/65/EC de 24 Meitheamh 1999	OJ Uimh. L172 de 8.7.1999
1999/71/EC de 14 Iúil 1999	OJ Uimh. L194 de 27.7.1999
2000/24/EC de 28 Aibreán 2000	OJ Uimh. L107 de 04.05.2000
2000/42/EC de 22 Meitheamh 2000	OJ Uimh. L158 de 30.06.2000
2000/48/EC de 25 Iúil 2000	OJ Uimh. L197 de 03.08.2000
2000/58/EC de 22 M. Fómh 2000	OJ Uimh. L244 de 29.09.2000
2000/82/EC de 20 Nollaig2000	OJ Uimh. L3 de 06.01.2001
2001/39/EU de 23 Bealtaine 2001	OJ Uimh. L148 de 01.05.2001
2001/48/EU de 28 Meitheamh 2001	OJ Uimh. L180 de 03.07.2001
2001/57/EU de 25 Iúil 2001	OJ Uimh. L208 de 01.08.2001
2002/23/EU de 26 Feabhra 2002	OJ Uimh. L64 de 07.03.2002
2002/42/EU de 17 Bealtaine 2002	OJ Uimh. L134 de 22.05.2002
2002/66/EU de 16 Iúil 2002	OJ Uimh. L192 de 20.07.2002
2002/71/EC de 19 Lúnasa 2002	OJ Uimh. L225 de 22.08.2002
2002/76/EC de 06 M. Fómh 2002	OJ Uimh. L240 de 07.09.2002
2002/79/EC de 02 D. Fómhair 2002	OJ Uimh. L291 de 28.10.2002
2002/97/EC de 16 Nollaig 2002	OJ Uimh. L343 de 18.12.2002
2003/60/EC de 18 Meitheamh 2003	OJ Uimh. L155 de 24.06.2003
2003/62/EC de 20 Meitheamh 2003	OJ Uimh. L154 de 21.06.2003
2003/69/EC de 11 Iúil 2003	OJ Uimh. L175 de 15.07.2003
2003/113/EC de 3 Nollaig 2003	OJ Uimh. L324 de 11.12.2003
2003/118/EC de 5 Nollaig 2003	OJ Uimh. L327 de 16.12.2003
2004/2/EC de 9 Eanáir 2004	OJ Uimh. L014 de 21.01.2004
2004/61/EU de 26 Aibreán 2005	OJ Uimh. L127 de 29.04.2004
2005/46/EU de 08 Iúil 2005	OJ Uimh. L177 de 09.07.2005
2005/48/EC de 23 Lúnasa 2005	OJ No L219 de 24.8.2005

2005/70/EC de 20 D. Fómhair 2005	OJ Uimh. L276 de 21.10.2005
2005/76/EC de 08 Samhain 2005	OJ Uimh. L293 de 09.11.2005
2006/4/EC de 26 Eanáir 2006	OJ Uimh. L23 de 27.01.2006
2006/30/EC de 13 Márta2006	OJ Uimh. L75 de 14.03.2006
2006/59/EC de 28 Meitheamh 2006	OJ Uimh. L175 de 29.06.2006
2006/61/EC de 07 Iúil 2006	OJ Uimh. L206 de 27.07.2006
2006/62/EC de 12 Iúil 2006	OJ Uimh. L206 de 27.07.2006
2006/92/EC de 09 Samhain 2006	OJ Uimh. L311 de 10.11.2006

3 Treoir ón gComhairle dar dáta an 24 Iúil 1986 maidir le huasleibhéil a shocrú d'iarmhair lotnaidicídí in earraí bia de bhunadh ainmhíoch agus ar earraí bia de bhunadh ainmhíoch. (86/363/CEE) OJ Uimh. L221 de 7.8.1986

agus Treoracha leasaithe -

93/57/CEE de 29 Meitheamh 1993	OJ Uimh. L211 de 23.8.1993
94/29/EC de 23 Meitheamh 1994	OJ Uimh. L189 de 23.7.1994
95/39/EC de 17 Iúil 1995	OJ Uimh. L197 de 22.8.1995
Corrigendum ar 95/39/EC	OJ Uimh. L164 de 3.7.1996
96/33/EC de 21 Bealtaine 1996	OJ Uimh. L144 de 18.6.1996
97/41/EC de 25 Meitheamh 1997	OJ Uimh. L184 de 12.7.1997
97/71/EC de 15 Nollaig 1997	OJ Uimh. L347 de 18.12.1997
98/82/EC de 27 D. Fómhair 1998	OJ Uimh. L290 de 29.10.1998
1999/71/EC de 14 Iúil 1999	OJ Uimh. L194 de 27.7.1999
2000/24/EC de 28 Aibreán 2000	OJ Uimh. L107 de 04.05.2000
2000/42/EC de 22 Meitheamh 2000	OJ Uimh. L158 de 30.06.2000
2000/58/EC de 22 M. Fómh 2000	OJ Uimh. L244 de 29.09.2000
2000/82/EC de 20 Nollaig2000	OJ Uimh. L3 de 06.01.2001
2001/39/EU de 23 Bealtaine 2001	OJ Uimh. L148 de 01.05.2001
2001/57/EU de 25 Iúil 2001	OJ Uimh. L208 de 01.08.2001
2002/23/EU de 26 Feabhra 2002	OJ Uimh. L64 de 07.03.2002
2002/42/EU de 17 Bealtaine 2002	OJ Uimh. L134 de 22.05.2002
2002/66/EU de 16 Iúil 2002	OJ Uimh. L192 de 20.07.2002
2002/71/EC de 19 Lúnasa 2002	OJ Uimh. L225 de 22.08.2002
2002/79/EC de 02 D. Fómhair 2002	OJ Uimh. L291 de 28.10.2002
2002/97/EC de 16 Nollaig 2002	OJ Uimh. L343 de 18.12.2002
2003/60/EC de 18 Meitheamh 2003	OJ Uimh. L155 de 24.06.2003
2003/113/EC de 3 Nollaig 2003	OJ Uimh. L324 de 11.12.2003
2003/118/EC de 5 Nollaig 2003	OJ Uimh. L327 de 16.12.2003
2004/2/EC de 9 Eanáir 2004	OJ Uimh. L014 de 21.01.2004
2004/61/EU de 26 Aibreán 2005	OJ Uimh. L127 de 29.04.2004

2004/95/EU de 24 M. Fómh 2004	OJ Uimh. L301 de 28.09.2004
2005/46/EU de 08 Iúil 2005	OJ Uimh. L177 de 09.07.2005
2005/48/EC de 23 Lúnasa 2005	OJ No L219 de 24.8.2005
2005/70/EC de 20 D. Fómhair 2005	OJ Uimh. L276 de 21.10.2005
2006/30/EC de 13 Márta 2006	OJ Uimh. L75 de 14.03.2006
2006/59/EC de 28 Meith2006	OJ Uimh. L175 de 29.06.2006
2006/61/EC de 07 Iúil 2006	OJ Uimh. L206 de 27.07.2006
2006/62/EC de 12 Iúil 2006	OJ Uimh. L206 de 27.07.2006

4 Treoir ón gComhairle dar dáta an 27 Samhain 1990 maidir le huasleibhéil a shocrú d'iarmhair lotnaidicídí i dtáirgí áirithe de bhunadh plandaí, lena n-áirítear torthaí agus glasraí, (90/642/CEE) OJ Uimh. L350 de 14.12.1990

agus na Treoracha leasaithe -

93/58/CEE de 29 Meitheamh 1993	OJ Uimh. L211 de 23.8.1993
Corrigendum ar 93/58 CEE	OJ Uimh. L219 de 24.8.1994
94/30/EC de 23 Meitheamh 1994	OJ Uimh. L189 de 23.7.1994
95/38/EC de 17 Iúil 1995	OJ Uimh. L197 de 22.8.1995
Corrigendum ar 95/38/CEE	OJ Uimh. L155 de 28.6.1996
95/61/EC de 29 November 1995	OJ Uimh. L292 de 7.12.1995
96/32/EC de 21 Bealtaine 1996	OJ Uimh. L144 de 18.6.1996
97/41/EC de 25 Meitheamh 1997	OJ Uimh. L184 de 12.7.1997
97/71/EC de 15 Nollaig 1997	OJ Uimh. L347 de 18.12.1997
98/82/EC de 27 D. Fómhair 1998	OJ Uimh. L290 de 29.10.1998
1999/65/EC de 24 Meitheamh 1999	OJ Uimh. L172 de 8.7.1999
1999/71/EC de 14 Iúil 1999	OJ Uimh. L194 de 27.7.1999
2000/24/EC de 28 de Aibreán 2000	OJ Uimh. L107 de 04.05.2000
2000/42/EC de 22 de Meitheamh 2000	OJ Uimh. L158 de 30.06.2000
2000/48/EC de 25 de Iúil 2000	OJ Uimh. L197 de 03.08.2000
2000/57/EC de 22 de M. Fómh 2000	OJ Uimh. L244 de 29.09.2000
2000/58/EC de 22 de M. Fómh 2000	OJ Uimh. L244/78 de 29.09.2000
2000/82/EC de 20 de Nollaig2000	OJ Uimh. L3/18 de 06.01.2001
2001/35/EU de 11 de Bealtaine 2001	OJ Uimh. L136 de 18.05.2001
2001/39/EU de 23 de Bealtaine 2001	OJ Uimh. L148 de 01.05.2001
2001/48/EU de 28 de Meitheamh 2001	OJ Uimh. L180 de 03.07.2001
2001/57/EU de 25 de Iúil 2001	OJ Uimh. L208 de 01.08.2001
2002/5/EU de 30 de Eanáir 2002	OJ Uimh. L34 de 05.02.2002

2002/23/EU de 26 de Feabhra 2002	OJ Uimh. L64 de 07.03.2002
2002/42/EU de 17 de Bealtaine 2002	OJ Uimh. L134 de 22.05.2002
2002/66/EU de 16 de Iúil 2002	OJ Uimh. L192 de 20.07.2002
2002/71/EC de 19 de Lúnasa 2002	OJ Uimh. L225 de 22.08.2002
2002/76/EC de 06 de M. Fómh 2002	OJ Uimh. L240 de 07.09.2002
2002/79/EC de 02 de D. Fómhair 2002	OJ Uimh. L291 de 28.10.2002
2002/97/EC de 16 de Nollaig 2002	OJ Uimh. L343 de 18.12.2002
2003/60/EC de 18 de Meitheamh 2003	OJ Uimh. L155 de 24.06.2003
2003/62/EC de 20 de Meitheamh 2003	OJ Uimh. L154 de 21.06.2003
2003/69/EC de 11 de Iúil 2003	OJ Uimh. L175 de 15.07.2003
2003/113/EC de 3 de Nollaig 2003	OJ Uimh. L324 de 11.12.2003
2003/118/EC de 5 de Nollaig 2003	OJ Uimh. L327 de 16.12.2003
2004/2/EC de 9 de Eanáir 2004	OJ Uimh. L014 de 21.01.2004
2004/59/EC de 23 de Aibreán 2004	OJ Uimh. L120 de 24.04.2004
2004/61/EU de 26 de Aibreán 2004	OJ Uimh. L127 de 29.04.2004
2004/95/EU de 24 de M. Fómh 2004	OJ Uimh. L301 de 28.09.2004
2005/37/EU de 03 de Meitheamh 2005	OJ Uimh. L141 de 04.06.2005
2005/46/EU de 08 de Iúil 2005	OJ Uimh. L177 de 09.07.2005
2005/48/EC de 23 de Lúnasa 2005	OJ No L219 de 24.8.2005
2005/70/EC de 20 de D. Fómhair 2005	OJ Uimh. L276 de 21.10.2005
2005/74/EC de 25 de D. Fómhair 2005	OJ Uimh. L282 de 26.10.2005
2005/76/EC de 08 de Samhain 2005	OJ Uimh. L293 de 09.11.2005
2006/4/EC de 26 de Eanáir 2006	OJ Uimh. L23 de 27.01.2006
2006/9/EC de 23 de Eanáir 2006	OJ Uimh. L22 de 26.01.2006
2006/30/EC de 13 de Márta 2006	OJ Uimh. L75 de 14.03.2006
2006/53/EC de 07 de Meith 2006	OJ Uimh. L154 de 08.06.2006
2006/59/EC de 28 de Meith 2006	OJ Uimh. L175 de 29.06.2006
2006/60/EC de 07 de Iúil 2006	OJ Uimh. L206 de 27.07.2006
2006/61/EC de 07 de Iúil 2006	OJ Uimh. L206 de 27.07.2006
2006/62/EC de 12 de Iúil 2006	OJ Uimh. L206 de 27.07.2006
2006/92/EC de 09 de Samhain 2006	OJ Uimh. L311 de 10.11.2006

5 Treoir ón gComhairle dar dáta an 4 Márta 1991, mar leasú ar Threoir 74/63/CEE ar shubstaintí agus táirgí míchuibhiúla i gcothú ainmhithe. (91/132/CEE) OJ Uimh. L66 de 13.3.1991

AGUISÍN III GLUAIS NA dTÉARMAÍ

Ionghabháil Laethúil Inglactha (ILI) Is meastachán an ILI ar an méid d'iarmhar i mbia nó in uisce óil in aghaidh an lae, arna lua ar bhonn mheáchan an choirp, is feidir a ionghabháil ar feadh an tsaoil gan aon bhaol inmheasta don tsláinte.

Tugtar leochaileacht bhreise an naíonáin, an linbh, an duine aosta agus an té a bhfuil a chuid córas faoi strus de bharr easláinte san áireamh, trí fhachtóir sábháilteachta a chur i bhfeidhm agus luachanna ILI á leagan síos.

Bíonn luachanna ILI bunaithe ar an leibhéal 'gan éifeacht díobhála' sa speiceas ainmhí is leochailí a bhí in úsáid le linn na dturgnamh tocsaineolaíochta, nó sa chás go bhfuil na sonraí cuí ar fáil, sa duine. Cuirtear fachtóir sábháilteachta i bhfeidhm i gcónaí chun an éagsúlacht idir speicis agus taobh istigh de speicis a thabhairt san áireamh. Is le substaint ghníomhach de réir a ghnáthdhéantúis a dhéantar na staidéir a bhíonn mar bhun leis an leibhéal gan éifeacht díobhála a aimsiú agus dá réir sin as na luachanna ILI a leagan amach. Bíonn, dá bhrí sin, éifeacht tocsaineolaíochta aon eisíontais a tharlaíonn i substaintí gníomhacha san áireamh sa mheasúnú. Tugtar meitibilítí a bhféadfadh tionchar a bheith acu ar thábhacht tocsaineolaíochta an iarmhair a thagann chomh fada leis an tomhaltóir san áireamh freisin.

Géardháileog Tagartha (GDT) Tá GDT cosúil le ILI ó thaobh a gcineál ach is le hionghabháil iarmhar le linn aon bhéile amháin nó aon lá amháin a bhaineann sé.

Tugtar leochaileacht bhreise an naíonáin, an linbh, an duine aosta agus an té a bhfuil a chuid córas faoi strus de bharr easláinte san áireamh, trí fhachtóir sábháilteachta a chur i bhfeidhm agus luachanna GDT á leagan síos.

Bíonn luachanna GDT bunaithe ar an leibhéal 'gan éifeacht díobhála' sa speiceas ainmhí is leochailí a bhí in úsáid le linn na dturgnamh tocsaineolaíochta, nó sa chás go bhfuil na sonraí cuí ar fáil, sa duine. Is ó thorthaí na staidéir tocsaineolaíochta sin is mó a bhaineann le hábhar an nochta gearrthéarmaigh fhaightear luachanna GDT.

Dea-chleachtas Talmhaíochta (DCT) Tagann an úsáid údaraithe faoi choinníollacha praiticiúla atá riachtanach don rialú éifeachtach ar orgánaigh dhíobhálacha faoin DCT in úsáid táirgí cosanta plandaí (lotnaidicídí). Is

AGUISÍN III ar lean

	féidir lotnaidicíd a chur ar phlanda ar raon leibhéal suas go dtí an leibhéal is airde a údaraítear, arna chur in úsáid ar shlí a fhágann an t-iarmhar is lú is féidir.
An Leibhéal Calabraithe is Lú (LCL)	An dlús is ísle d'iarmhar lotnaidicíde a bhfuil an córas aimsithe calabraithe lena aghaidh chun críche iarmhair intomhaiste a bheith ann nó as a dheimhniú. Is iondúil go mbíonn sé in úsáid chomh maith chun an teorainn tuairiscithe d'iarmhair lotnaidicíde ar leith a leagan síos.
Leibhéal íosta deimhnithe (LÍD)	Is é an LÍD an dlús is ísle iarmhar lotnaidicíde nó éillíontais is féidir a aimsiú agus a thomhas go cainníochtúil le cinnteacht inghlactha trí mhodh anailíse i mbia áirithe, i dtráchtearra talmhaíochta nó i mbia ainmhithe.
Calabrú Mheaitseáil Maitríse	Córas ina n-úsáidtear tuaslagáin chalabraithe d'fhonn cinntiú go mbíonn gach comhchuid (seachas an anailít) comhchosúil leis na tuaslagáin chomhionanna a fhaightear ó na samplaí a bhfuil anailís le cur orthu, nó gur ionann an éifeacht orthu de bharr anailíse. Is é is cuspóir le calabrú mheaitseáil maitríse ná cúiteamh d'éifeacht méadaithe nó sochtaithe na freagartha san anailít ag eascairt ó chomh-eastóscaigh an tsampla agus crómatagram a chur ar fáil a bhfuil trasnaíocht de bhun leis atá inchomparáide le trasnaíocht an tsampla. Ullmhaítear bánáin mhaitríse ag baint úsáide as tuaslagóirí, imoibrithe agus nósanna imeachta glanta atá comhchosúil leo sin a bhíonn in úsáid don anailís ar na samplaí atá le cur faoi anailís. Cuirtear an lotnaidicíd le heastóscadh bán de mhaitrís atá comhchosúil leis an ábhar atá le cur faoi anailís. Is féidir an mhaitrís a bheith éagsúil le maitrís na samplaí más léir go mbaineann sé amach na cuspóirí atá luaite.
Uasteorainn iarmhair (UTI)	Is éard is UTI ann an dlús uasta iarmhar lotnaidicíde, arna thabhairt i milleagraim an cileagram, a cheadaítear faoin dlí i dtráchtearraí bia agus i mbia ainmhithe nó ar thráchtearraí bia agus ar bhia ainmhithe. Bíonn UTIanna bunaithe ar shonraí ó thrialacha maoirsithe ar iarmhair de réir an Deachleachtas Talmhaíochta (DCT). Leagtar síos UTI do thráchtearra bia ar leith ar leibhéal a mheastar a bheith inghlactha ó thaobh tocsaineolaíochta de dá dtarlódh nochtadh don iarmhar sin do thomhaltóir.

Socraítear UTIanna ag an teorainn bhraite, nó thart ar an teorann bhraite, sa chás nach bhfuil aon úsáid ann a cheadaítear.

Bunaítear UTIanna ar bhonn slán eolais eolaíochta. Is i gcás na lotnaidicídí sin a bhfuil luach Ionghabhála Laethúil Inghlactha (ILI) socraithe dóibh, agus dóibh sin amháin, a shocraítear UTI.

Leibhéal gan éifeacht díobhála

Is é an leibhéal gan éifeacht díobhála an leibhéal is airde nochtadh leanúnach do cheimiceán nach dtarraingíonn aon éifeacht díobhála den suntas ar mhoirfeolaíocht, ar bhithcheimic, ar acmhainn feidhme, ar fhás, ar fhorbairt ná ar shaolré duine nó ainmhí den spriocspeiceas.

Iarmhar Lotnaidicíde

Aon rian de lotnaidicíd a fhaightear i sampla, díorthaí sonraithe ar nós táirgí díghrádaithe agus táirgí tiontaithe, meitibilítí agus eisíonta san áireamh, a meastar gur den suntas iad ó thaobh tocsaineolaíochta de agus a thugtar san áireamh sa sainmhíniú ar an iarmhar.

AGUISÍN IV NA MODHANNA AGUS NÓSANNA IMEACHTA ANAILÍSE A CUIREADH IN ÚSÁID CHUN IARMHAIR LOTNAIDICÍDÍ IN EARRAÍ BIA A AIMSIÚ

Tá na modhanna a gcuirtear síos orthu thíos i measc na modhanna anailíse atá in úsáid faoi láthair sa tsaotharlann iarmhar lotnaidicíde.

(i) Modh iliarmhair 1, *Modhanna Anailíse maidir le hIarmhair Lotnaidicíde in Earraí Bia, 6ú eagrán,* 1996, Ard-Chigireacht na bhFadhbanna Sláinte, Aireacht Sláinte Poiblí, Leasa agus Spóirt na hÍsiltíre. Baintear úsáid as an modh chun iarmhair lotnaidicídí orgánafosfaire, orgánaclóiríne agus beinsimeideasóile a bhrath i mbia de bhunadh plandaí.

Nóta: Leasú ar an modh seo a bhíonn in úsáid. Is éard atá i gceist leis an modh leasaithe sulfáit sóidiam a chur isteach nuair a eastósctar an sampla chun ligean d'eastóscadh lotnaidicídí polacha orgánafosfair.

(ii) Modh iliarmhair 1, *Modhanna Anailíse maidir le hIarmhair Lotnaidicíde in Earraí Bia*, 6ú eagrán, 1996, Ard-Chigireacht na bhFadhbanna Sláinte, Aireacht Sláinte Poiblí, Leasa agus Spóirt na hÍsiltíre. Baineann an leasú ar an modh seo le húsáid as aicéatáit eitile mar thuaslagóir eastósctha agus cuirtear i bhfeidhm é chun anailís a dhéanamh ar iarmhair lotnaidicídí orgánafosfaire, orgánaclóiríne agus beinsimeideasóile i ngránaigh.

(iii) Modh Becker, *Modh iliarmhair d'fhonn brath cheimiceáin chosanta plandaí go comhuaineach in ábhar plandaí*, Dtsch, Lebensm. Runsch. 75, 148-152, 1979, ag baint úsáide as colún thréscaoileadh glóthaigh in áit an cholún de ghlóthach shilice/ghualach gníomhaíochtaithe a shonraítear,

(iv) Tá an modh a bhíonn in úsáid chun iarmhair orgánaclóiríne agus orgánafosfair a dheimhniú i samplaí saille bunaithe ar mhodh glanta uimhir 5 i Lámhleabhar na Gearmáine maidir le hAnailís ar Iarmhair Lotnaidicídí (Imleabhar 1 na bliana 1987) agus is éard atá i gceist leis ná eastóscadh le meascán d'aicéitinítríl agus aicéatón, agus glanadh ina dhiaidh sin ag baint úsáide as colún crómatagrafaíochta thréscaoileadh glóthaigh agus micrea cholúin alúmana/níotráite airgid (do lotnaidicídí orgánaclóiríne amháin)

Tá an modh anailíse atá in úsáid maidir le comhdhúile beinsimeideasóil bunaithe ar an modh a tugadh chun cinn in Hiemstra, M., J.A. Joosten agus A. de Kok, J. AOAC Int. 78, 1267 -1274, 1995. Baintear úsáid as glanadh eastósctha pas-soladach lán-uathoibríoch agus as córas crómatagrafaíochta leachta ar-líne, le braiteoir UV, chun na fungaicídí beinsimeideasóil cairbeindisím, beinimíol agus tiafanáit-mheitile (a dheimhnítear mar chairbeindisím) agus tiaibeindeasól a aimsiú i dtorthaí agus i nglasraí -

Aguisín V Loitnaidicídí a aimsíodh i dTorthaí, Glasraí, i nGránaigh agus i Mil.

Comhdhúile Lotnaidicídí.	LCL* (mg/kg)	Comhdhúile Lotnaidicídí.	LCL* (mg/kg)	Comhdhúile Lotnaidicídí.	LCL* (mg/kg)
aicéafáit	0.05	déchófal	0.05	monacrótafas	0.02
aldrin	0.02	dé-eildrin	0.02	micleabútainil	0.02
alaclór	0.02	démheitiáit	0.02	trasnónachlór	0.02
Atrazine	0.02	défheiniolaimín	0.02	óimeatóáit	0.02
aisínfós-eitile	0.05	déshulfótón	0.02	ocsaidiocsail	0.02
aisínfós-meitile	0.05	endrin	0.02	paraocsón	0.02
asocsastróibin	0.05	ionsulfan-alfa**	0.02	paraitian	0.02
benalaxyl	0.02	ionsulfan-béite	0.02	paraitian meitile	0.02
α - BHC	0.02	ionsulfan-sulfáite	0.02	paraocsón-meitile	0.02
β - BHC	0.02	Est-feanvailéaráit	0.05	peancónasól	0.02
σ - BHC	0.02	eitiain	0.02	peindimeitilin	0.02
dé-feintrin	0.02	eitreamphos	0.02	permeitrin **	0.02
dé-napracril	0.02	fēinearamól	0.02	fosalón	0.02
défheinil	0.02	feanbacónasól	0.02	phosmet	0.02
bitertanol	0.02	feanclórfos	0.02	phosphamidon	0.02
brómapropláit	0.02	feanheacsaimíd	0.05	pirimicharb	0.02
brómafós-eitile	0.02	feinitritiain	0.02	pirimiphos ethyl	0.02
brómafós-meitile	0.02	feanprópáitrin	0.02	pirimiphos methyl	0.02
biúporeamáid	0.02	feintión	0.02	Próclóras	0.02
captafól	0.02	feanvailéaráit	0.02	Próicímeadón	0.02
carbairil	0.02	fludocsainil	0.02	propachlor	0.02
captan**	0.02	flúsaileasól	0.02	propanil	0.02
carbeindisím	0.02	flúvailináit-tó	0.02	propargite	0.02
carbófúrán	0.02	falpeit	0.02	propetamphos	0.02
clóraifeinvinfos	0.02	fōnafos	0.05	propiconazole	0.02
clóraibheinsíláit	0.02	heipteaclór	0.02	propoxur	0.02
clórprófam	0.02	heipteaclór-eapocsaíd	0.02	próipisimíd	0.02
clóratalóinil	0.02	heipteanafos	0.02	pyrazophos	0.02
Clóraipireafos	0.02	heicseaclóraibeinséin	0.02	pirimeatanail	0.02
Clóraipireafos-me	0.02	heacsacónasól	0.02	pyrifenox	0.02
cios-clórdán	0.02	ipróidé-ón	0.02	quintozene	0.02
tras-clórdán	0.02	isifeanfos	0.05	quinalphos	0.02
cúmafos	0.02	iadaifeanfos	0.02	siomaisín	0.02
βciflútrain	0.02	Creasocsaim meitile	0.02	tebuconazole	0.02
λ -ciflútrain	0.02	liondán (γ-HCH)	0.02	tecnazene	0.02
-cihaileatrin	0.02	lionúrón	0.02	terbufos	0.02
ciaipeirmeitrin	0.05	malaitian	0.02	tetradifon	0.02
cipreaconasól	0.05	mala-ocsón	0.02	tiaibeindeasól	0.05
cipróidinil	0.02	mearcarbam	0.02	tolcophos methyl	0.02
pp'DDT	0.02	meitichrifos	0.02	tolafluainid	0.02
op'DDT	0.02	miotalaicsil	0.02	triazophos	0.02
pp'DDE	0.02	meataimideafos	0.05	triadimefon	0.02
op'DDE	0.02	Meitideaitión	0.02	triadimenol	0.02
pp'DDD	0.02	meitiacarb	0.02	tríflúrailín	0.05
op'DDD	0.02	Meitiacarb sulfóin	0.05	trichlorfon	0.05
deiltemeitrin	0.05	Meitiacarb sulfoxide	0.05	Fíoncleasóilin	0.02
deimeaton-s-me-sulf	0.02	meatocscaclór	0.02		
dé-aisínón	0.02	meatolaclór	0.02	EBDC's (dithiocarbamates)	0.05
déchlófluainid	0.02	mevinfos	0.02		
dicloran	0.05	mireacs	0.02		
déchlórvos	0.02				
* = LCL an leibhéal calabraithe is lú agus is ionann é agus an teorainn deimhnithe.					

AGUISÍN VI IARMHAIR A AIMSÍODH I SAILL DÚÁIN BÓLACHTA, MUICE, CAORACH, ÉANLAITH, CAPAILL AGUS FIAFHEOLA.

Comhdhúile Organaclóirín agus Comhaicmigh PCB	**An Leibhéal Calabraithe is Lú (LCL) (milleagraim an cileagram – ppm)**
Aildrin	arna úsáid mar chaighdeán inmheánach
α - Clórdán	0.005
γ - Clórdán	0.005
pp'DDT	0.005
op'DDT	0.005
pp'DDE	0.005
op'DDE	0.005
pp'DDD	0.005
op'DDD	0.005
Dieldrin	0.005
Déchófal	0.005
α-Ionsulfán	0.005
β-Ionsulfán	0.005
Endrin	0.005
HCB	0.005
α-HCH	0.005
β-HCH	0.01
σ-HCH	0.005
Heipteaclór	0.005
Heipteaclór-cios-eapocsaíd	0.005
Liondán (γ-HCH)	0.005
PCB 28	0.01
PCB 52	0.01
PCB 101	0.01
PCB 118	0.01
PCB 138	0.01
PCB 153	0.01
PCB 180	0.01
Permeitrin	0.04
Cuintiséin	0.005
Teicniséin	0.005

AGUISÍN VI IARMHAIR A AIMSÍODH I SAILL DÚÁIN BÓLACHTA, MUICE, CAORACH, ÉANLAITH, CAPAILL AGUS FIAFHEOLA.

Comhdhúile Orgánafosfair.	**An Leibhéal Calabraithe is Lú (LCL) (milleagraim an cileagram – ppm)**
Aisínfos-Eitile	0.2
Aisínfos-mEitile	0.06
Brómasfós-Eitile	0.07
Brómasfós-Meitile	0.07
Clóirfeinveanfos	0.06
Clóraipireafos	0.05
Clóraipireafos-Methyl	0.05
Dé-aisionón	0.05
Déchlórvos	0.05
Démheitiáit	0.05
Eitiain	0.05
Feanclórfos	0.05
Fonofos	0.06
Iadaifeanfos	0.1
Malaitian	0.05
Meitideaitión	0.04
Meivineafos	0.05
Paraitian	0.1
Paraitian-meitile	0.05
Fosalón	0.13
Pirimifos-eitile	0.1
Pirimifos-meitile	0.07
Própeitmeafós	0.05
Trí-asafos	0.05

AGUISÍN VII LOTNAIDICÍDÍ A AIMSÍODH SA BHAINNE

Comhdhúile Organaclóirín agus Comhaicmigh PCB.	An Leibhéal Calabraithe is Lú (LCL) (milleagraim an cileagram – ppm)
Aldrin	---
α - Clórdán	0.005
γ - Clórdán	0.005
Dé-eildrin	0.005
pp'DDT	0.005
op'DDT	0.005
pp'DDE	0.005
op'DDE	0.005
pp'DDD	0.004
op'DDD	0.005
Déchófal	0.005
α - Ionsulfán	0.005
β - Ionsulfán	0.005
Eindrin	0.005
HCB	0.005
α - HCH	0.005
β - HCH	0.01
σ - HCH	0.005
Matocsaclór	0.005
Heipteaclór	0.005
Heipteaclór-cios-eapocsaíd	0.005
Liondán (γ - HCH)	0.005
PCB 28	0.01
PCB 52	0.01
PCB 101	0.01
PCB 118	0.01
PCB 138	0.01
PCB 153	0.01
PCB 180	0.01
Permeitrin	0.04
Cuintiséin	0.005
Teicniséin	0.005

AGUISÍN VII LOTNAIDICÍDÍ A AIMSÍODH SA BHAINNE

Comhdhúile Orgánafosfair.	An Leibhéal Calabraithe is Lú (LCL) (milleagraim an cileagram – ppm)
Aisínfos-Eitile	0.2
Aisínfos-Meitile	0.06
Brómasfós-Eitile	0.07
Brómasfós-Meitile	0.07
Clóirfeinveanfos	0.06
Clóraipireafos	0.05
Clóraipireafos-Meitile	0.05
Dé-aisínón	0.05
Déchlórvos	0.05
Démheitiáit	0.05
Eitiain	0.05
Feanclórfos	0.05
Fónafos	0.06
Iadaifeanfos	0.1
Malaitian	0.05
Meitideaitión	0.04
Meivineafos	0.05
Paraitian	0.1
Paraitian-Meitile	0.05
Fosalón	0.13
Pirimifós-eitile	0.1
Pirimifós-meitile	0.07
Própeitmeafós	0.05
Trí-asafos	0.05

Eascraíonn na torthaí sa tuarascáil thuas ó obair

An Saotharlann Rialú Lotnaidicíde,
An Roinn Talamhaíochta Iascaigh agus Bia,
Coimpléasc Saotharlainne Bhacastúin,
Crosbhóthar de Siún,
Cill Droichid,
Co. Chill Dara.
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Is leis na samplaí a tástáladh amháin a bhaineann torthaí na tuarascála.