

**- FOI reply (February 2014) from the Chemicals Regulation Directorate (Health & Safety Executive)**

# DDT found in salmon

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Consumer Affairs Editor

**Pesticide discovered in farmed fish on sale in five major British supermarkets**

PESTICIDES have been found in fresh salmon sold by leading supermarkets. Farmed salmon from Scotland and Norway is hugely popular as a healthy oily fish.

However, the production process involves dosing the fish, reared in cages moored in the sea, in chemicals to kill parasitic lice.

They are also given a protein feed, created from small waste fish which can be contaminated with chemicals from the environment - including DDT and its by-products.

Trace levels of these chemicals were found in fish sold by Waitrose, Tesco, Asda, Morrisons and Iceland. DDT was banned for use almost 30 years ago because of its risk to human health.

A recently published study suggested a link between DDT, an associated by-product compound called pp-DDE and Alzheimer's disease in the elderly.

Official studies show farmed salmon is more likely to carry traces of chemical pesticides than any other food type.

The Pesticides Residues Monitoring Programme, which is overseen by the Health & Safety Executive (HSE), tested farmed salmon and trout sold in the supermarkets.

The figures from 2013, which have just been released through a Freedom of Information Act request, found the pesticides pp-DDE, Dieldrin and Cypermethrin, as well as other chemicals, in fish sold by supermarkets.

Dieldrin, a powerful pesticide, was banned in the 1970s.

It has been linked to health problems such as Parkinson's, breast cancer and immune, reproductive, and nervous system damage.

Cypermethrin is a pesticide used on farmed salmon to kill off lice that live on the captive fish.

The results revealed two samples of rainbow trout filets from the UK sold by Morrisons tested positive for Dieldrin, while salmon sold by Iceland also tested positive. Tesco Everyday Value salmon filets from Norway were found to contain traces of pp-DDE.

The chemicals accumulate in the fat of the fish. Salmon which is farmed is far fattier than the wild fish and therefore more likely to carry chemical traces.

The details were revealed by Don Staniford, Director of the Global Alliance Against Industrial Aquaculture, who is a long standing critic of fish farms.

He said: 'Farmed salmon is the most contaminated food on the supermarket shelf. It should carry a Government health warning.'

'Salmon farmers can decontaminate fish feed - this has been known for decades but the industry has refused to take action.'

Government experts have ruled that the chemical levels are so low as to not pose a risk, say the HSE.

The HSE added that it 'does detect and report occasional residues of substances used to control lice on fish. When used for this purpose these substances are regulated as veterinary medicines.'

The British Retail Consortium, which speaks for food stores, said: 'The HSE has confirmed the microscopic residues present no issues for consumers.'

'The chemical banned since the 1980s is still present in minute levels in the environment and the survey is to assess the levels present.'

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### Summary:

Data released via Freedom of Information (FOI) by the Pesticide Residues Monitoring Programme of the Chemicals Regulation Directorate (an agency Health and Safety Executive) reveals that residues of DDT, Dieldrin, Cypermethrin and Deltamethrin have been detected in Scottish and Norwegian farmed salmon on sale in supermarkets across the UK - from Port Talbot to East Sussex to Harrogate to Newcastle to Southampton - including Marks & Spencers, Asda, Iceland, Tesco and Waitrose during 2013 (January to September).

A [letter](#) from the Health & Safety Executive dated 10 February 2014 states that the information will be published in "early March". A further FOI request was filed (3 March) for data for Q4 2013 (October to December). "The quarter 4 2013 data is not yet available," replied the HSE (6 March). "The quarter 4 report is not due to be published until June 2014".

Previous surveys of salmon were conducted by the Pesticide Residues Committee (PRC) and The Expert Committee on Pesticide Residues in Food (PRiF) in 2010, 2007, 2004 and 2001. The [2010 Pesticide Residues Committee annual report](#) detailed how 58% of fresh salmon (assumed to all be farmed) contained pesticide residues - and salmon represented the most contaminated food group with 42 out of the 85 positive samples (i.e. 49.4%).

The [brand name annex for Q2 2010](#) included positive samples for DDT, Dieldrin, Deltamethrin and Cypermethrin in farmed salmon from Norway and the UK (i.e. Scotland) sold in Asda, Co-op, Lidl, Morrisons, Sainsburys, Tesco and Waitrose. The brands included: Marine Harvest's "Freedom Food Atlantic Salmon" (certified by the RSPCA), "responsibly sourced" (Sainsburys) and "responsibly farmed select" (Waitrose).

The chemical cocktail in farmed salmon includes the following pesticides:

- [DDT](#) has been classified by the International Agency for Research on Cancer classified as a possible human carcinogen and has been [linked to breast cancer](#). DDT has [contaminated farmed salmon for decades](#) despite being [banned for use 30 years ago because of the risk to human health](#).
- [Dieldrin](#) is a banned pesticide that is highly persistent in the environment and classified as a probable human carcinogen. Scientific studies have [shown dieldrin contamination of farmed salmon](#).
- [Cypermethrin](#), a neurotoxin used as a pesticide on salmon farms [since the 1990s](#), is classified as a possible human carcinogen and has [increased significantly](#) in use on Scottish salmon farms. Cypermethrin has been [shown by scientific research](#) to impact on the reproductive functions of wild salmon and [kills lobsters](#).
- Deltamethrin [considered the most powerful and most toxic of the pyrethroids](#), is used as a chemical treatment for sea lice parasites on salmon farms. The use of Deltamethrin has [increased significantly in Scottish](#) as well as in [Norwegian salmon farming](#).

**Results of 2013 testing so far (Q4 2013 date will be available in June 2014):**

**DDT was detected in 17% of UK salmon (i.e. Scottish farmed salmon) sampled between April and September 2013** (read data in full [online here](#))

**Table a. Residues detected in retail samples of FISH (FRESH WATER) purchased between April and September 2013**

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
<b>FISH (FRESH WATER), SALMON UK: 24 samples analysed</b>		
aldrin and dieldrin (No MRL)	<0.002 (i.e. not found) 0.002	23 1
DDT (sum) (No MRL)	<0.002 (i.e. not found) 0.002 - 0.005	20 4

**Q1 2013: Cypermethrin, Deltamethrin and DDE were detected in farmed salmon from Norway and Scotland sold by Asda, Tesco and the Edinburgh Salmon Company**

During 2013 the first quarter of 2013 (January to March), four samples of farmed salmon tested positive for chemicals: salmon fillets from Norway sold by Asda tested positive for Cypermethrin and DDE; salmon fillet from the Edinburgh Salmon Company in Scotland tested positive for DDE; boneless Scottish salmon fillets sold by Sainsbury's tested positive

for Deltamethrin; and salmon fillets from Norway sold by Tesco tested positive for DDE. Two samples of rainbow trout fillets from the UK sold by Morrisons tested positive for Dieldrin (read the FOI data in full [online here](#)).

<b>Survey date</b> (year/quarter)	2013 Q1
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PRiF ref no	AFBI ref no	Analytical Batch no.	Producer	Retailer	Food description	% Fat	Commodity type	Organic (Y/N)	Sample state	Country of origin
14490/2013	PL56251	WP 524	Asda Stores	Asda	Salmon fillets	7.3	Raw	N	Fresh	Norway
14248/2013	PL56261	WP 524	Morrisons	Morrisons	Rainbow trout	4.6	Raw	N	Fresh	UK
14769/2013	PL56372	WP 527	Edinburgh Salmon Co. Ltd	Asda	Salmon fillet	11.6	Raw	N	Fresh	Scotland
14290/2013	PL56375	WP 527	Sainsburys	Sainsburys	Boneless Scottish salmon fillets	16.6	Raw	N	Fresh	UK
14026/2013	PL56410	WP 526	Morrisons	Morrisons	Rainbow trout	3.5	Raw	N	Fresh	UK
14909/2013	PL56413	WP 526	Tesco	Tesco	Everyday Value salmon fillets	13.4	Raw	N	Fresh	Norway

#### Residues detected (mg/kg)

PRiF ID	Fat content	AFBI ID	Cypermethrin	Dieldrin	pp-DDE	Deltamethrin
14490/2013	7.3	PL 56251	0.003		0.002	
14248/2013	4.6	PL 56261		0.003		
14769/2013	11.6	PL 56372			0.002	
14290/2013	16.6	PL 56375				0.003
14026/2013	3.5	PL 56410		0.003		
14909/2013	13.4	PL 56413			0.002	

**Q2 2013: Dieldrin and DDT were detected in farmed Scottish salmon fillets sold by Waitrose** (FOI data [online here](#))

PRiF 2013 Q2 Freshwater Fish: residues detected:

PRiF sample ID	AFBI sample ID	Description	Country of origin	Retailer	Compound	Conc (mg/kg)
15420/2013	PL 56517	Boneless Scottish salmon fillets	UK	Waitrose	Dieldrin DDT (pp-DDE)	0.002 0.005

**Q3 2013: DDT was detected in farmed Scottish and Norwegian salmon sold by Iceland, Waitrose, Tesco and Marks and Spencers** (FOI data [online here](#))

**PRiF 2013 Q3 Freshwater Fish: residues detected:**

PRiF sample ID	AFBI sample ID	Description	Country of origin	Retailer	Compound	Conc (mg/kg)
16196/2013	PL 56723	Salmon fillets	UK	Iceland	DDT (pp-DDE)	0.002
16248/2013	PL 56728	Boneless Scottish salmon fillets	UK	Waitrose	DDT (pp-DDE)	0.002
17999/2013	PL 56879	Boneless salmon fillets	Norway	Tesco	DDT (pp-DDE)	0.002
17079/2013	PL 56935	4 Scottish Lochmuir salmon fillets	UK	Marks and Specers	DDT (pp-DDE)	0.002
17066/2013	PL 56904	Koi	Bangladesh	Tesco	DDT (pp-DDT)	0.003

According to the brand name annex (read in full [online here](#)):

The Iceland store caught selling DDT-contaminated farmed Scottish salmon was in Port Talbot, Wales:

16196/2013	02/07/2013	Salmon fillets	UK	Iceland	Aberavon Centre Port Talbot SA13 1PB	Iceland	Iceland Food Second Avenue Sealand Deeside CH5 2NW	DDT (sum) 0.002 (No MRL)
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The Marks and Spencers store caught selling DDT-contaminated farmed Scottish salmon was in Hedge End, Southampton:

17079/2013	03/09/2013	4 Scottish Lochmuir salmon fillets	UK	Marks & Spencers	Toll Bar Way Hedge End SO30 2UH	Marks & Spencers	Marks & Spencers PO Box 3339 Chester CH99 9QS	DDT (sum) 0.002 (No MRL)
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The Tesco store caught selling DDT-contaminated farmed Norwegian salmon was in Hailsham, East Sussex:

17999/2013	12/08/2013	Boneless salmon fillets	Norway	Tesco	North Street Hailsham East Sussex BN27 1DP	Tesco	Tesco Cheshunt EN8 9SL	DDT (sum) 0.002 (No MRL)
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The Waitrose stores caught selling DDT, aldrin and dieldrin-contaminated farmed Scottish were in Newcastle and Harrogate:

15420/2013	24/04/2013	Boneless Scottish salmon fillets	UK	Waitrose	Osbourne Road Newcastle NE2 2AN	Waitrose	Waitrose Bracknell Berks RG12 8YA	aldrin and dieldrin 0.002 (No MRL) DDT (sum) 0.005 (No MRL)
16248/2013	01/07/2013	Boneless Scottish salmon fillets	UK	Waitrose	92 Station Parade Harrogate HG1 1HD	Waitrose	Waitrose Bracknell Berks RG12 8YA	DDT (sum) 0.002 (No MRL)

**Previous surveys:**

Surveys of salmon were conducted by the Pesticide Residues Committee (PRC) and The Expert Committee on Pesticide Residues in Food (PRiF) in 2010, 2007, 2004 and 2001:

- [2010 January - June](#)  
[2010 July - November](#)
- [2007 April - June](#)  
[2007 July - September](#)
- [2001 May - December](#)

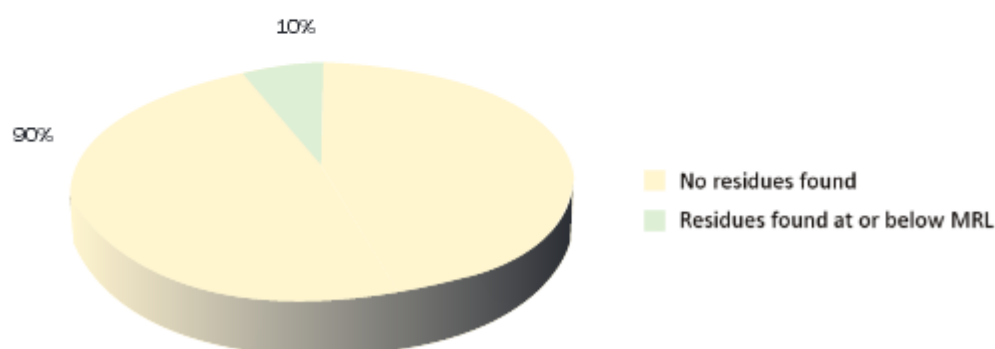
Access online above and via the Health & Safety Executive web-page on '[Pesticide Residues](#)'

The [2010 Pesticide Residues Committee annual report](#) detailed how 58% of fresh salmon (assumed to be 100% farmed) contained residues - and salmon represented the most contaminated food group with 42 out of the 85 positive samples (i.e. 49.4%):

## 10 Results – animal products

We tested 851 samples for up to 37 pesticides. We carried out tests on over 31,175 food and pesticide combinations.

We found residues in 85 of these samples (10.0%). None of the samples contained residues above MRLs.



Out of 72 samples of **salmon** 42 contained residues. These were residues of **DDT**, **dieldrin**, **cypermethrin** and **deltamethrin**. As with the trout the residues could have come from contamination in the environment or food. Cypermethrin and deltamethrin are used as veterinary medicines as well as pesticides. Both are authorised for use on salmon in the UK. It is therefore not surprising that we found these residues.

### Results by Food Type

Food	Number of samples tested	Number of samples containing residues	Number of samples containing residues above the MRL	Number of samples containing more than one residue
Beef	120	1	0	0
Cheese	107	3	0	0
Milk	300	0	0	0
Pork	108	0	0	0
Salmon	72	42	No MRLs	5
Trout	96	36	No MRLs	4
Venison	48	3	0	0

Until the introduction of new MRL laws in September 2008 relatively few MRLs applied to animal products. The new law increased this number and it will continue to increase in the future as more foods are included in the MRL regulations.

The [Q4 2010 report](#) included:





## Salmon (fresh)

<b>Introduction</b>	<p>Salmon was last tested in 2007 as part of our trout and salmon survey. It is surveyed regularly as part of the rolling programme of commodities.</p> <p>This survey looks at steaks, fillets and whole fish. This is a survey of fresh and frozen fish, both wild and farmed.</p> <p>In the 2007 survey we found residues of DDT and dieldrin in the samples. Both these residues are persistent organic pollutants. In the first part of this survey we again found residues of DDT and dieldrin, as well as residues of cypermethrin and deltamethrin.</p>
<b>Survey design</b>	<p>This is the second part of our survey, covering samples obtained between July and November. The first part of the survey covered samples collected between January and June 2010 and the results were published in our Quarter 2 2010 report.</p> <p>Samples were purchased across the UK from retail outlets by a market research company.</p>
<b>Further details</b>	<p>Full details of pesticides sought and residues detected are in Table 25 at page 167 Suppliers details are in the Brand Name Annex</p>

## Conclusions

<b>Summary statement</b>	<p>Based on risk assessment none of the residues detected would be expected to have an effect on health.</p> <p><b>DDT</b> DDT is not permitted for use anywhere in the EU and in many other parts of the world. However these residues could have resulted from the use of this pesticide some time ago as it is persistent in the environment. The DDT we found was in the form of <i>p,p</i>-DDE, indicating that those residues are from historic use.</p>
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## Results

<b>When samples were taken</b>	Between July and November 2010
<b>Number of samples</b>	30 samples were tested for up to 34 pesticide residues
<b>Origin of samples</b>	<p>19 samples came from the UK 11 samples were imported from outside the EU</p> <p>The country of origin given on the packaging does not necessarily indicate where the salmon was farmed or caught. It may be where the fish was landed, where it was processed or packed for retail sale, or the home country of the brand owner.</p>
<b>Residues found</b>	<p>13 samples contained no residues from those sought 17 samples contained residues above the reporting level None of the samples were labelled as organic.</p>
<b>Multiple residues</b>	None of the samples contained residues of more than one pesticide

**Table 25a. Residues detected in retail samples of SALMON purchased between July and November 2010**

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
<b>SALMON, UK: 19 samples analysed</b>		
DDT <sup>†</sup> (No MRL)	<0.002 (i.e. not found) 0.002 - 0.007	10 9
<b>SALMON, Imported (Non-EC): 11 samples analysed</b>		
DDT <sup>†</sup> (No MRL)	<0.002 (i.e. not found) 0.003 - 0.004	3 8

Imported (Non-EC) samples of salmon were from Norway (7), Unknown (3), USA (1).  
UK samples of salmon (19).

Residues were distributed by country of origin, as follows:

DDT Norway (7), UK (9), Unknown (1)

No residues were found in 10 of the 19 UK samples

No residues were found in 3 of the 11 Imported (Non-EC) samples

<sup>†</sup> DDT found as *p,p'*-DDE

**Table 25b. Residues detected in retail samples of SALMON purchased between July and November 2010 *continued***

Residues (1-1 compounds) were found in 17 of the 30 samples as follows:

Number of residues	PRC Sample ID	Residues found (mg/kg) DDT	Country of origin
(1)	3400/2010	0.002	UK
	3437/2010	0.003	UK
	3762/2010	0.002	UK
	3834/2010	0.007	UK
	4522/2010	0.003	UK
	4547/2010	0.003	UK
	4871/2010	0.003	UK
	5689/2010	0.002	UK
	5740/2010	0.002	UK
	2879/2010	0.003	Norway
	3471/2010	0.004	Norway
	3800/2010	0.004	Norway
	4198/2010	0.003	Norway
	4493/2010	0.003	Norway
	4856/2010	0.003	Norway
	4908/2010	0.003	Norway
	3137/2010	0.003	Unknown

The abbreviations used for the pesticide names are as follows:

DDT DDT

The [Q2 2010 report](#) included:



## Salmon (fresh)

<b>Introduction</b>	<p>Salmon was last tested in 2007 as part of our trout and salmon survey. It is surveyed regularly as part of the rolling programme of commodities.</p> <p>This survey looks at steaks, fillets and whole fish. This is a survey of fresh fish, both wild and farmed.</p> <p>In the 2007 survey we found residues of DDT and dieldrin in the samples. Both these residues are persistent organic pollutants.</p>
<b>Survey design</b>	<p>This is the first part of our survey, covering samples obtained between January and June 2010. The second part of the survey will cover samples obtained between July and December and the results will be published in our Quarter 4 2010 report.</p> <p>Samples were purchased across the UK from retail outlets by a market research company.</p>
<b>Further details</b>	<p>Full details of pesticides sought and residues detected are in Table 21 at page 154 Suppliers details are in the Brand Name Annex</p>

## Conclusions

<b>Summary Statement</b>	<p>Based on risk assessment none of the residues detected would be expected to have an effect on health.</p> <p><b>Residues detected</b></p> <p>DDT and dieldrin are not permitted for use anywhere in the EU and in many other parts of the world. However these residues could have resulted from the use of these pesticides some time ago as both are persistent in the environment. The DDT we found was in the form of <i>p,p</i>-DDE, indicating that those residues are from historic use.</p> <p>Cypermethrin and deltamethrin are used as veterinary medicines as well as pesticides, and are authorised for use on salmon and trout in the UK.</p>
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## Results

<b>When samples were taken</b>	Between January and June 2010
<b>Number of samples</b>	42 samples were tested for up to 36 pesticide residues
<b>Origin of samples</b>	<p>28 samples came from the UK 13 samples were imported from outside the EU 1 sample came from the EU</p> <p>The country of origin given on the packaging does not necessarily indicate where the salmon was farmed or caught. It may be where the fish was landed, where it was processed or packed for retail sale, or the home country of the brand owner.</p>
<b>Residues found</b>	<p>17 samples contained no residues from those sought 25 samples contained residues above the reporting level 1 sample was labelled as organic. It did not contain any residues from those sought</p>
<b>Multiple residues</b>	<p>5 samples contained residues of more than one pesticide</p> <ul style="list-style-type: none"> <li>4 samples contained 2 residues</li> <li>1 sample contained 3 residues</li> </ul>

The [brand name annex for Q2 2010](#) included positive samples for DDT, Dieldrin, Deltamethrin and Cypermethrin in farmed salmon from Norway and the UK (i.e. Scotland)



sold in Asda, Co-op, Lidl, Morrisons, Sainsburys, Tesco and Waitrose. The brands included: Marine Harvest's "Freedom Food Atlantic Salmon" (certified by the RSPCA), "responsibly sourced" (Sainsburys) and "responsibly farmed select" (Waitrose):

Pesticide Residues Committee Sample Details Quarter 2 2010 Salmon								
PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
0542/2010	18/01/2010	2 Salmon fillets	Norway	Asda	Cherry Tree Road Blackpool FY4 4QH	Youngs	Youngs PO Box 51 Grimsby DN31 3TJ	DDT 0.005 (No MRL)
0543/2010	18/01/2010	2 Salmon fillets	UK	Asda	Cherry Tree Road Blackpool FY4 4QH	Asda	Asda Stores Leeds LS11 5AD	DDT 0.003 (No MRL)
0587/2010	18/01/2010	Salmon	UK	Asda	21 Market Square Bromsgrove BG1 8DA	Asda	Asda Stores Leeds LS11 5AD	DDT 0.004 (No MRL)
0588/2010	18/01/2010	Salmon fillets	Norway	Asda	21 Market Square Bromsgrove BG1 8DA	Youngs	Youngs PO Box 51 Grimsby DN31 3TJ	DDT 0.004 (No MRL)
2718/2010	22/05/2010	Salmon fillet	UK	Asda	North Road Baldon Colliery NE35 9AR	Asda	Asda Stores Leeds LS11 5AD	DDT 0.005 (No MRL)
2747/2010	24/05/2010	Salmon fillet	UK	Asda	Derrychara Road Ernskillen BT74 6JG	Asda	Edinburgh Smoked Salmon Co Strathview Ding Wall Ross-shire IV15 9XD	DDT 0.01 (No MRL) dieldrin 0.003 (No MRL)
2798/2010	22/05/2010	Scottish salmon fillets with skin	UK	Co-op	Orton Centre Peterborough Cambs PE2 5UW	Co-op	Co-op Corporation Street Manchester M60 4ES	DDT 0.005 (No MRL)
3016/2010	21/06/2010	Salmon Fillet	Germany	Lidl	Bury New Road Prestwich M25 0LD	Trawlic	Royal Greenland Flughafenallee Bremen D28199	DDT 0.005 (No MRL)
1387/2010	26/04/2010	Gutted salmon superior	Atlantic ocean	Mermaid Seafood	Cae Bach Bulder Street Llandudno LL30 1DR	Allan & Dey Ltd	Allan & Dey Ltd 45 Sinclair Road Aberdeen AB11 9BG	DDT 0.003 (No MRL)
0973/2010	01/03/2010	Salmon fillet	UK	Morrisons	King Street Aberdeen AB24 5DA	Morrisons	Morrisons Bradford BD3 3DL	DDT 0.004 (No MRL)
3082/2010	22/06/2010	Gutted freedom food Atlantic salmon	UK	R King & Sons	Hartlepool TS26 9ET	Marine Harvest	Marine Harvest Newbridge EH28 8PP	DDT 0.004 (No MRL)
0572/2010	18/01/2010	Responsibly sourced 3 salmon fillets	UK	Sainsburys	White Hart Lane Chelmsford Essex CM2 5PA	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	DDT 0.003 (No MRL) deltamethrin 0.006 (No MRL)
0794/2010	01/02/2010	Scottish skinless and boneless fillets	UK	Sainsburys	80 Dog Kennel Hill London SE22 8BB	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	DDT 0.005 (No MRL)
1439/2010	26/04/2010	Salmon side fillet	UK	Sainsburys	Triton Road Lincoln LN6 7QN	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	DDT 0.005 (No MRL) deltamethrin 0.002 (No MRL)
1463/2010	25/04/2010	Scottish salmon fillet portions	UK	Sainsburys	10 Allerdycy Road Glasgow G15 6RX	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	DDT 0.004 (No MRL) deltamethrin 0.006 (No MRL)
0515/2010	19/01/2010	Salmon fillets	Norway	Tesco	Newtonhill Road Newtonhill Aberdeenshire AB39 3PX	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.004 (No MRL)
0573/2010	18/01/2010	Salmon fillets	Norway	Tesco	Princes Road Chelmsford Essex CM2 9XW	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.005 (No MRL)
0707/2010	01/02/2010	Value salmon fillets	Norway	Tesco	Baths Road Longton Stoke-on-Trent ST3 4JB	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.004 (No MRL)

0725/2010	01/02/2010	Salmon fillets	Norway	Tesco	St Oswalds Road Gloucester Gloucestershire GL1 2SG	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.005 (No MRL)
0767/2010	02/02/2010	Salmon fillets	UK	Tesco	Wombwell Lane Barnsley S70 3NS	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
0992/2010	01/03/2010	Market value salmon fillet	Norway	Tesco	Riverside Avenue Bournemouth BH7 7DY	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.006 (No MRL)
2766/2010	24/05/2010	Salmon fillets	Norway	Tesco	Peel Centre Valley Road Bradford BD1 4RB	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.005 (No MRL)
0511/2010	18/01/2010	Market value salmon fillets	Norway	Tesco Extra	Laurel Drive Darneston Aberdeen AB22 8HB	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.005 (No MRL)
0747/2010	01/02/2010	Responsibly farmed select farm prime salmon fillet	UK	Waitrose	728 Midsummer Boulevard Central Milton Keynes Bucks MK9 3NJ	Waitrose	Waitrose Bracknell Berks RG12 8YA	DDT 0.005 (No MRL)
1014/2010	01/03/2010	Select farm salmon fillet	UK	Waitrose	112-118 High Street Billericay Essex CM12 9BY	Waitrose	Waitrose Bracknell Berks RG12 8YA	cypermethrin 0.02 (No MRL) DDT 0.009 (No MRL) dieldrin 0.002 (No MRL)

The [brand name annex for Q4 2010](#) included:

Pesticide Residues Committee Sample Details Quarter 4 2010 Salmon								
PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
2879/2010	22/11/2010	Boneless salmon fillets	Norway	Asda	Ossory Road London SE1 5AG	Youngs	Youngs PO Box 51 Grimsby DN31 3TJ	DDT 0.003 (No MRL)
3762/2010	14/08/2010	2 salmon fillets	UK	Asda	219 Shore Road Belfast BT15 3QB	Asda	Asda Stores Leeds LS11 5AD	DDT 0.002 (No MRL)
3834/2010	15/08/2010	Salmon fillets, boneless	UK	Asda	80 Milngavie Road Glasgow G61 2TX	Youngs	Youngs PO Box 51 Grimsby DN31 3TJ	DDT 0.007 (No MRL)
3437/2010	18/07/2010	Salmon steaks	UK	Morrisons	Albion Way Norwich NR1 1WU	Morrisons	Morrisons Gain Lane Bradford BD3 3DL	DDT 0.003 (No MRL)
4547/2010	04/10/2010	Fresh salmon	UK	Morrisons	Lower Milehouse Lane Newcastle- under-Lyme ST5 9AL	Morrisons	Morrisons Gain Lane Bradford BD3 7DL	DDT 0.003 (No MRL)
5689/2010	22/11/2010	Fresh Scottish salmon	UK	Morrisons	Lower Thomas Street, Off West Way, Barnsley S70 1LN	Morrisons	Morrisons Gain Lane Bradford BD3 3DL	DDT 0.002 (No MRL)
3137/2010	19/07/2010	Salmon steaks	North East Atlantic	Sainsbury's	Queensway Weston Super Mare Somerset BS22 6BL	Southwest Seafoods	Interfish Ltd Plymouth PL4 0RW	DDT 0.003 (No MRL)
4871/2010	01/11/2010	Responsibly sourced salmon fillet skinless and boneless	UK	Sainsbury's	Castle Point Castle Lane Bournemouth BH8 9UW	Sainsbury's	Sainsbury's 33 Holborn London EC1N 2HT	DDT 0.003 (No MRL)
5740/2010	22/11/2010	Scottish salmon steaks	UK	Sainsbury's	St Ann Way Gloucester GL2 4PA	Sainsbury's	Sainsbury's 33 Holborn London EC1N 2HT	DDT 0.002 (No MRL)
3400/2010	17/07/2010	Salmon side	UK	Tesco	33 West Street Gateshead NE8 1BU	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.002 (No MRL)
3800/2010	16/08/2010	Farmed salmon fillets	Norway	Tesco	Llandudno LL31 9XX	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.004 (No MRL)

4198/2010	01/11/2010	Salmon fillets	Norway	Tesco	288 High Street Enfield EN3 4DP	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
4493/2010	04/10/2010	Market value salmon fillets	Norway	Tesco	Pontardulais Road Cadle Swansea SA5 4BA	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
4856/2010	01/11/2010	Salmon fillets	Norway	Tesco	Clifton Retail Park Sandhams Lane Blackpool FY4 4UT	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
4908/2010	01/11/2010	Salmon fillet	Norway	Tesco	47-53 Springfield Road Chelmsford CM2 6QT	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
3471/2010	17/07/2010	Salmon fillets	Norway	Tesco Extra	Serpentine Green Centre Hampton Peterborough Cams PE7 8BD	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.004 (No MRL)
4522/2010	04/10/2010	Responsibly farmed salmon fillets	UK	Waitrose	45 Masons Hill Bromley BR2 9HD	Waitrose	Waitrose Bracknell Berkshire RG12 8YA	DDT 0.003 (No MRL)

## Appendix 1: FOI reply from the Health & Safety Executive (10 February 2014)

[Documents [online here](#)]

From: Rachel.Merrick@hse.gsi.gov.uk [mailto:Rachel.Merrick@hse.gsi.gov.uk]

Sent: 06 March 2014 15:25

To: director@protectwildscotland.org

Subject: RE: Pesticide Residues in Salmon Request

Dear Mr Staniford,

The quarter 4 2013 data is not yet available.

The quarter 4 report is not due to be published until June 2014.

Regards

*Rachel Merrick  
Pesticide Residues Monitoring Programme  
Chemicals Regulation Directorate  
Health and Safety Executive*

*Ground floor  
Mallard House  
Kings Pool  
3 Peasholme Green  
York  
YO1 7PX  
Tel no: 01904 455981*










## RE: Pesticide Residues in Salmon Request

Rachel.Merrick@hse.gsi.gov.uk

You forwarded this message on 21/02/2014 21:29.

Sent: Mon 10/02/2014 12:56

To: director@protectwildscotland.org

Message	 CRD-EIR-full-disclosure-letter-rev-2012.pdf (62 KB)	 Q1 ASG Data.pdf (527 KB)
	 Q1 Asg Minutes extract.pdf (47 KB)	 Q2 ASG Data.pdf (696 KB)
	 Q3 ASG Minutes Extract.pdf (53 KB)	 Q3 ASG Data.pdf (531 KB)
	 Q3 Fish Brand Name Annex.pdf (90 KB)	 Q3 Fish Summary Tables only.pdf (27 KB)
	 Glossary.pdf (94 KB)	

Dear Mr Staniford,

Please find attached the information you requested and a letter to explain the information that has been sent.

Many Thanks

*Rachel Merrick  
Pesticide Residues Monitoring Programme  
Chemicals Regulation Directorate  
Health and Safety Executive*

*Ground floor  
Mallard House  
Kings Pool  
3 Peasholme Green  
York  
YO1 7PX  
Tel no: 01904 455981*

Attached letter:



Health and Safety  
Executive

Chemicals Regulation  
Directorate

Redgrave Court  
Meton Road  
Bootle  
Merseyside  
L20 7HS

Mallard House  
Kings Pool  
3 Peasholme Green  
York  
YO1 7PX

<http://www.hse.gov.uk/>

[relevant CRD website(s)]

Date: 10 February 2014

Your Reference: 2014/001A

## REQUEST FOR INFORMATION

Thank you for your request for information about pesticide residues in salmon in 2013, which we received on 21 January 2014.

I can confirm that your request is being dealt with under the Environmental Information Regulations 2004 (EIR) and having considered the matter carefully we have reached the conclusion that some of this information can be disclosed. Copies of the requested information are therefore enclosed with this letter.

General guidance on how the Health & Safety Executive deals with requests under the Freedom of Information Act and Environmental Information Regulations can be found on the HSE website at <http://www.hse.gov.uk/foi/index.htm>

If you have any queries about this letter, please contact me. Please remember to quote the reference number above in any future communications.

If you are unhappy with the decisions made by CRD you may ask for an internal review by writing to me within two calendar months of the date of this letter.

If you are not content with the outcome of the internal review you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

The Information Commissioner's Office  
Wycliffe House  
Water Lane  
Wilmslow

Chemicals Regulation Directorate – Protecting the health of people and the environment

Cheshire  
SK9 5AF  
Tel: 01625 545700  
Fax: 01625 524510  
Email: [mail@ico.gsi.gov.uk](mailto:mail@ico.gsi.gov.uk)  
Website: <http://www.informationcommissioner.gov.uk>

Yours sincerely

Chemicals Regulation Directorate

ENC.



## Annex I

You have requested information about residues found in salmon in 2013. To date, we only have data for samples collected until September.

It may help to explain that there is a two stage review of the data. The laboratories submit their data for a peer review meeting with the Expert Committee on Pesticide Residues in Foods Analytical Sub Group. The members of the sub group are from all of the laboratories which submit data to the programme plus CRD experts and a Defra assessor. The data are reviewed to make sure they are fit for purpose and any technical difficulties resolved with the experts.

Once the data are reviewed the laboratories submit the data electronically to CRD. CRD then produce tables of figures and a draft report for consideration by the PRiF at their quarterly meetings. Any amendments are taken on board, actions followed up by CRD and the report published soon after.

### I have provided:

- Data and an extract from the minutes of the Analytical Sub Group (ASG) meetings where salmon samples were discussed. In the ASG data, there are some chromatograms. Chromatograms are the pattern of separated substance obtained by chromatography. They show the level that certain results were recovered at.
- The draft summary tables and brand name annex (BNA) of the Expert Committee on Pesticide Residues in Food (PRiF) draft quarter 3 2013 report. A draft of the quarter 3 report has been reviewed by the committee but is not due to be published until early March, therefore while the data will not change some of the wording in the report may change.

### I have not provided:

- The draft commentary on these results by the Expert Committee on Pesticide Residues in Food that will appear in Section. This is still being worked on, on balance we think the public interest falls on the side of not releasing this information to you while the Committee is deliberating how to explain issues arising.
- Forms completed by samplers. These do not as a rule contain more information than that included in the Brand Name Annex. Due to the forms having no information about any residues tested for or found in the samples they do not relate to your request.

Other documents that contain salmon results in 2013 can be found on our website.

The Quarter 1 report has been published on our website

([http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF\\_Results\\_and\\_Reports/2013++Programme](http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF_Results_and_Reports/2013++Programme)) the salmon results are on page 13 in the report and page 22 in the brand name annex. The minutes from the PRiF meeting in which the quarter 1 report was discussed can be found at <http://www.pesticides.gov.uk/Resources/CRD/PRiF/Documents/Other/2013/Minutes%20170713%20Final.pdf>, fish is discussed at 8.4.

Chemicals Regulation Directorate – Protecting the health of people and the environment

The information provided has had all names and personal details removed in accordance with Regulations 12(3) and 13 of EIR.

As we have found no residues which our risk assessment identified would have an effect on health, we have not written to any of the brand name owners in 2013 with regards to the salmon samples. Some of the residues found were from pesticides that are no longer approved for use, such as DDT, however the form of residue that was found strongly suggest that the residue is due to historical use of the pesticides which are known to stay in the environment for many years. We do not follow such results up as a matter of routine.

I have also included a glossary, which shows the meanings for the terms we use in the report.

As mentioned in my previous letter, we do not hold any laboratory reports as all our results are sent to us in flat data files. But the results and reporting limits are all published in our reports.

Read letter as a PDF [online here](#)

Attached documents:

#1 Q1 2013 (April 2013): [online here](#)

ASG – 24.04.13	
Commodity	Freshwater fish (target nos. 24, rec'd 24)

**Residues detected (mg/kg)**

PRiF ID	Fat content	AFBI ID	Cypermethrin	Dieldrin	pp-DDE	Deltamethrin
14490/2013	7.3	PL 56251	0.003		0.002	
14248/2013	4.6	PL 56261		0.003		
14769/2013	11.6	PL 56372			0.002	
14290/2013	16.6	PL 56375				0.003
14026/2013	3.5	PL 56410		0.003		
14909/2013	13.4	PL 56413			0.002	

**PRiF 2013 Q1 Freshwater Fish Sample Details**

PRiF ref no	AFBI ref no	Analytical Batch no.	Producer	Retailer	Food description	% Fat	Commodity type	Organic (Y/N)	Sample state	Country of origin
14601/2013	PL56249	WP 524	Sainsburys	Sainsburys	Scottish loch trout fillets	5.4	Raw	N	Fresh	Scotland
14090/2013	PL56250	WP 524	Tesco	Tesco	Wild Alaskan salmon	1.0	Raw	N	Frozen	China
14490/2013	PL56251	WP 524	Asda Stores	Asda	Salmon fillets	7.3	Raw	N	Fresh	Norway
14698/2013	PL56253	WP 524	Waitrose	Waitrose	Essentials Scottish salmon fillets	2.1	Raw	N	Fresh	UK
14326/2013	PL56254	WP 524	Morrisons	Morrisons	Fresh salmon fillet	7.9	Raw	N	Fresh	UK
14248/2013	PL56261	WP 524	Morrisons	Morrisons	Rainbow trout	4.6	Raw	N	Fresh	UK
14816/2013	PL56262	WP 524	Tesco	Tesco	Boneless salmon fillets	8.9	Raw	N	Fresh	Norway
14141/2013	PL56263	WP 524	New England Seafood	Sainsburys	Premium Scottish salmon fillets	3.2	Raw	N	Fresh	Scotland
14527/2013	PL56264	WP 527	Sainsburys	Sainsburys	Fresh rainbow trout	5.0	Raw	N	Fresh	Ireland
14417/2013	PL56265	WP 527	Youngs Seafood Ltd	Cooperative	Wild Alaskan pink salmon	1.4	Raw	N	Frozen	China
14583/2013	PL56370	WP 527	Tesco	Tesco	Whole rainbow trout	3.3	Raw	N	Fresh	UK
14050/2013	PL56371	WP 527	Aldi	Aldi	The Fishmonger boneless fresh salmon fillets	11.4	Raw	N	Fresh	UK
14769/2013	PL56372	WP 527	Edinburgh Salmon Co. Ltd	Asda	Salmon fillet	11.6	Raw	N	Fresh	Scotland
14368/2013	PL56373	WP 527	Morrisons	Morrisons	Rainbow trout	1.6	Raw	N	Fresh	UK
14650/2013	PL56374	WP 527	Harbour Salmon Co	Co-op	Salmon fillets	15.5	Raw	N	Fresh	UK

PRiF ref no	AFBI ref no	Analytical Batch no.	Producer	Retailer	Food description	% Fat	Commodity type	Organic (Y/N)	Sample state	Country of origin
14290/2013	PL56375	WP 527	Sainsburys	Sainsburys	Boneless Scottish salmon fillets	16.6	Raw	N	Fresh	UK
14865/2013	PL56405	WP 526	Tesco	Tesco	Boneless salmon fillets	9.2	Raw	N	Fresh	Norway
14999/2013	PL56406	WP 526	Marks & Spencers	Marks & Spencers	2 Scottish Lochmuir salmon fillets	12.2	Raw	N	Fresh	UK
14277/2013	PL56407	WP 526	Asda	Asda	Trout	4.4	Raw	N	Fresh	UK
14190/2013	PL56408	WP 526	Sainsburys	Sainsburys	Wild Alaskan salmon fillets	4.0	Raw	N	Frozen	UK
14191/2013	PL56409	WP 526	Tesco	Tesco	Rainbow trout whole	3.9	Raw	N	Fresh	UK
14026/2013	PL56410	WP 526	Morrisons	Morrisons	Rainbow trout	3.5	Raw	N	Fresh	UK
14468/2013	PL56411	WP 527	Waitrose	Waitrose	Boneless Scottish salmon fillets	16.4	Raw	N	Fresh	UK
14909/2013	PL56413	WP 526	Tesco	Tesco	Everyday Value salmon fillets	13.4	Raw	N	Fresh	Norway

Minutes of a follow up meeting (24 April 2013) discussing the Q1 2013 data included:

<b>Conclusions from ASG</b>	<ol style="list-style-type: none"> <li>1. Chromatograms showing an acceptable signal to noise were provided for the out of range recoveries and the data was accepted</li> <li>2. It was agreed that residues should be expressed on a whole product basis with the percentage fat reported for each sample.</li> <li>3. Predominantly farmed salmon and trout had been purchased – this was not reflected in the title of the survey. CRD to consider renaming it.</li> </ol>
<b>Actions</b>	<ol style="list-style-type: none"> <li>1. <a href="#">CRD</a> to consider renaming the survey</li> <li>2. <a href="#">CRD</a> to consider how to ensure more fish types were included in future surveys.</li> </ol>

## #2 Q2 2013 - [online here](#)

ASG – 06.11.13	
<b>Commodity</b>	Fish (fresh water) (target nos. 30, rec'd 30)
<b>% Recoveries outside 60-140 range</b>	Paraoxon-methyl 52%, 55% Tecnazene 44%
<b>Residues</b>	Dieldrin (1) 0.002mg/kg p,p'-DDE (1) 0.005mg/kg

PRiF 2013 Q2 Freshwater Fish: residues detected:

PRiF sample ID	AFBI sample ID	Description	Country of origin	Retailer	Compound	Conc (mg/kg)
15420/2013	PL 56517	Boneless Scottish salmon fillets	UK	Waitrose	Dieldrin DDT (pp-DDE)	0.002 0.005

Minutes of a follow up meeting (6 November 2013) discussing the Q2 2013 data included:

<b>Conclusions from ASG</b>	<ol style="list-style-type: none"> <li>1. stated that 30 samples were received &amp; 2 compounds found.</li> <li>2. Chromatograms showing an acceptable signal to noise were provided for the out of range recoveries and the data was accepted.</li> </ol>
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## #3 Q3 2013 - [online here](#)

ASG – 06.11.13	
<b>Commodity</b>	Fish (fresh water) (target nos. 36, rec'd 33)

<b>% Recoveries outside 60-140 range</b>	Hexachlorobenzene 54% Paraoxon-methyl 54%, 48% Profenofos 55% Quintozene 54% Tecnazene 44%
<b>Residues</b>	p,p'-DDE (4) 0.002mg/kg p,p'-DDT (1) 0.003mg/kg

PRIF 2013 Q3 Freshwater Fish: residues detected:

PRIF sample ID	AFBI sample ID	Description	Country of origin	Retailer	Compound	Conc (mg/kg)
16196/2013	PL 56723	Salmon fillets	UK	Iceland	DDT (pp-DDE)	0.002
16248/2013	PL 56728	Boneless Scottish salmon fillets	UK	Waitrose	DDT (pp-DDE)	0.002
17999/2013	PL 56879	Boneless salmon fillets	Norway	Tesco	DDT (pp-DDE)	0.002
17079/2013	PL 56935	4 Scottish Lochmuir salmon fillets	UK	Marks and Specers	DDT (pp-DDE)	0.002
17066/2013	PL 56904	Koi	Bangladesh	Tesco	DDT (pp-DDT)	0.003

Minutes of a follow up meeting (6 November 2013) discussing the Q3 2013 data included:

<b>Conclusions from ASG</b>	<ol style="list-style-type: none"> <li>1. stated that 33 samples were received.</li> <li>2. Chromatograms showing an acceptable signal to noise were provided for the out of range recoveries and the data was accepted.</li> <li>3. commented that it was unusual to get pp-DDT residues without pp-DDE.</li> <li>4. stated that pp-DDT is still used in some part of the world for malaria control. In addition, DDT may be used during fish drying process in some parts of the world.</li> <li>5. noted that in batch WP 540 the recovery values were associated with late eluting compounds on the GPC.</li> <li>6. confirmed that the Koi sample listed in the table is carp.</li> </ol>
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#### #4 Q3 2013 brand name annex - [online here](#)

A summary report from the Expert Committee on Pesticide Residues (Q3 2013) included the following data for 'salmon':

Expert Committee on Pesticide Residues in Food Sample Details Quarter 3 2013 Fish (fresh water)								
Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)

Salmon								
14800/2013	22/04/2013	The Fishmonger wild pink salmon fillets	China	Aldi	Gateway Retail Park Holyhead Road Telford TF2 9NH	Aldi	Aldi PO Box 26 Atherstone Warwickshire CV9 2SH	None were detected above the set RL
14825/2013	09/04/2013	The Fishmonger fresh salmon fillets	UK	Aldi	32/38 Commercial Road Port Talbot SA13 1LG	Aldi	Aldi PO Box 26 Atherstone Warwickshire CV9 2SH	None were detected above the set RL
14229/2013	08/04/2013	Salmon fillets	UK	Asda	Princess Way Burnley BB12 0EQ	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
14396/2013	22/04/2013	Boneless skin on salmon fillets	UK	Asda	Brighton Marina BN22 5UT	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
14920/2013	01/07/2013	Smart price salmon fillets	UK	Asda	1 Ring Road Coleraine BT52 1QP	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
15573/2013	13/08/2013	Boneless salmon fillets	UK	Asda	St Nicholas Way Sutton SM1 1ND	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
17610/2013	16/07/2013	Salmon fillet	Norway	Asda	West Quay Road Poole BH15 1JQ	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
17881/2013	03/06/2013	Boneless skin on salmon fillets	UK	Asda	Chelmer Village Chelmsford CM2 6RE	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
14424/2013	08/04/2013	Pacific pink salmon	UK	Co-op	Torquay Road Springfield CM1 6NF	Co-op	Co-op Manchester M60 4ES	None were detected above the set RL
16196/2013	02/07/2013	Salmon fillets	UK	Iceland	Aberavon Centre Port Talbot SA13 1PB	Iceland	Iceland Food Second Avenue Sealand Deeside CH5 2NW	DDT (sum) 0.002 (No MRL)
15474/2013	11/05/2013	Salmon fillet	Germany	Lidl	Moir Road Lisburn BT28 1RH	Trawlic	Royal Greenland D-28199 Bremen	None were detected above the set RL
17079/2013	03/09/2013	4 Scottish Lochmuir salmon fillets	UK	Marks & Spencers	Toll Bar Way Hedge End SO30 2UH	Marks & Spencers	Marks & Spencers PO Box 3339 Chester CH99 9QS	DDT (sum) 0.002 (No MRL)
14478/2013	12/05/2013	Market deals salmon fillets	UK	Morrisons	Lake Street Leighton Buzzard Beds LU7 1WS	Morrisons	Morrisons Gain Lane Bradford BD3 7DL	None were detected above the set RL
14673/2013	23/04/2013	Fishmonger boneless salmon fillets	UK	Morrisons	Prince Charles Road Exeter EX4 7BY	Morrisons	Morrisons Gain Lane Bradford BD3 7DL	None were detected above the set RL

Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
15296/2013	08/04/2013	Everyday value 4 salmon fillets	Norway	Tesco	2 Bannfield Road Coleraine BT52 1HU	Tesco	Tesco Cheshunt EN8 9SL	None were detected above the set RL
15309/2013	12/05/2013	Everyday value salmon fillets	Norway	Tesco	2 Bannfield Road Coleraine BT52 1HU	Tesco	Tesco Cheshunt EN8 9SL	None were detected above the set RL
15614/2013	29/07/2013	2 boneless salmon fillets	Norway	Tesco	Northwest Approach Ebbw Vale Gwent NP23 6TS	Tesco	Tesco Cheshunt EN8 9SL	None were detected above the set RL
15660/2013	28/07/2013	Boneless salmon side	Norway	Tesco	Bentrim Road Lisburn BT28 2GB	Tesco	Tesco Cheshunt EN8 9SL	None were detected above the set RL
17999/2013	12/08/2013	Boneless salmon fillets	Norway	Tesco	North Street Hailsham East Sussex BN27 1DP	Tesco	Tesco Cheshunt EN8 9SL	DDT (sum) 0.002 (No MRL)
15946/2013	02/09/2013	Everyday value 4 salmon fillets	Norway	Tesco Extra	Durham Road Stockton on Tees TS21 3LU	Tesco	Tesco Cheshunt EN8 9SL	None were detected above the set RL
15137/2013	20/05/2013	Whole salmon side	UK	Waitrose	311 Ashley Road Poole BH14 0AP	Waitrose	Waitrose Bracknell Berks RG12 8YA	None were detected above the set RL
15420/2013	24/04/2013	Boneless Scottish salmon fillets	UK	Waitrose	Osbourne Road Newcastle NE2 2AN	Waitrose	Waitrose Bracknell Berks RG12 8YA	aldrin and dieldrin 0.002 (No MRL) DDT (sum) 0.005 (No MRL)
16248/2013	01/07/2013	Boneless Scottish salmon fillets	UK	Waitrose	92 Station Parade Harrogate HG1 1HD	Waitrose	Waitrose Bracknell Berks RG12 8YA	DDT (sum) 0.002 (No MRL)
16468/2013	15/07/2013	Essential Scottish salmon	UK	Waitrose	Wentworth Park Hexham NE46 3PJ	Waitrose	Waitrose Bracknell Berks RG12 8YA	None were detected above the set RL

#5 Q3 2013 fish summary tables - [online here](#)



**Table a. Residues detected in retail samples of FISH (FRESH WATER) purchased between April and September 2013**

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
<b>FISH (FRESH WATER), SALMON UK: 24 samples analysed</b>		
aldrin and dieldrin (No MRL)	<0.002 (i.e. not found) 0.002	23 1
DDT (sum) (No MRL)	<0.002 (i.e. not found) 0.002 - 0.005	20 4
<b>FISH (FRESH WATER), TILAPIA UK: 2 samples analysed</b>		
None found	-	2
<b>FISH (FRESH WATER), TROUT UK: 12 samples analysed</b>		
None found	-	12
<b>FISH (FRESH WATER), OTHER Imported (Non-EC): 3 samples analysed</b>		
DDT (sum) (No MRL)	<0.002 (i.e. not found) 0.003	2 1
<b>FISH (FRESH WATER), RIVER COBBLER Imported (Non-EC): 8 samples analysed</b>		
None found	-	8
<b>FISH (FRESH WATER), SALMON Imported (Non-EC): 12 samples analysed</b>		
DDT (sum) (No MRL)	<0.002 (i.e. not found) 0.002	11 1
<b>FISH (FRESH WATER), TILAPIA Imported (Non-EC): 1 samples analysed</b>		
None found	-	1
<b>FISH (FRESH WATER), SALMON Imported (EC): 1 samples analysed</b>		
None found	-	1

Imported (EC) samples of fish (fresh water) were from Germany (1).  
 Imported (Non-EC) samples of fish (fresh water) were from Bangladesh (2), Burma (1), China (1), Ecuador (1), Norway (10), USA (1), Vietnam (8).  
 UK samples of fish (fresh water) (38).

Residues were distributed by country of origin, as follows:

aldrin and dieldrin UK (1)  
 DDT (sum) Bangladesh (1), Norway (1), UK (4)

No residues were found in 20 of the 24 UK salmon samples  
 No residues were found in any of the UK tilapia samples  
 No residues were found in any of the UK trout samples  
 No residues were found in 2 of the 3 Imported (Non-EC) other samples  
 No residues were found in any of the Imported (Non-EC) river cobbler samples  
 No residues were found in 11 of the 12 Imported (Non-EC) salmon samples  
 No residues were found in any of the Imported (Non-EC) tilapia samples  
 No residues were found in any of the Imported (EC) salmon samples

Residues (1-2 compounds) were found in 6 of the 63 samples as follows:

Dear Mr Staniford,

Please see the attached letter with regards to your request for information on pesticide residues in salmon since 2001.

Regards

*Rachel Merrick  
Pesticide Residues Monitoring Programme  
Chemicals Regulation Directorate  
Health and Safety Executive*

*Ground floor  
Mallard House  
Kings Pool  
3 Peasholme Green  
York  
YO1 7PX  
Tel no: 01904 455981*

\*\*\*\*\*

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Interested in Occupational Health and Safety information?  
Please visit the HSE website at the following address to keep yourself up to date

[www.hse.gov.uk](http://www.hse.gov.uk)

\*\*\*\*\*

Attached letter:

**Chemicals Regulation  
Directorate**

Redgrave Court  
Merton Road  
Bootle  
Merseyside  
L20 7HS

Mallard House  
Kings Pool  
3 Peasholme Green  
York  
YO1 7PX

Date: 7 January 2014

<http://www.hse.gov.uk/>

[relevant CRD website(s)]

**ENVIRONMENTAL INFORMATION REGULATIONS 2004  
REQUEST REGARDING PESTICIDE RESIDUES IN FARMED SALMON SINCE 2001**

Thank you for your request for information about pesticide residues in farmed salmon since 2001, which we received on 12 December 2013.

I can confirm that your request has actually been dealt with under the Environmental Information Regulations 2004 (EIR), rather than, as originally indicated, under the Freedom of Information Act, and that the Chemicals Regulation Directorate (CRD) holds information of the description specified in your request. However, we have estimated that complying with your request as it stands would take a great deal of time and under regulation 12(4)(b) of the Regulations we are permitted to refuse requests that are "manifestly unreasonable". We are therefore refusing your request on these grounds.

In applying the exception in regulation 12(4)(b) of the EIR I have had to balance the public interest in withholding the information against the public interest in disclosing it. In doing this I have identified the factors in favour of disclosing/withholding the information as follows:

Factors in favour of disclosing the withheld information are:

- Furthering CRD's general aim of making information about the chemicals CRD regulates, including their authorisation process, available.

Factors in favour of withholding the information are:

- The increased burden on CRD's resources for handling requests for regulatory information outside of its established regulatory procedures thereby affecting its effective conduct of its competent authority functions.

From this I have on balance concluded that in all the circumstances the public interest in maintaining the exception from disclosure provided for by regulation 12(4)(b) of the EIR, outweighs the public interest in disclosure.

Due to the wide-ranging nature of your request we estimate that locating, extracting and preparing the information for release would take well in excess of 10 days work and this would constitute an unacceptable diversion of resources. If the impact on the organization from dealing with your request then falls within acceptable limits. Some of the information you are asking for is already available in the public domain, so you could, for example:

- be more specific about the time period covered by your request;
- explain more about the information you are looking for;
- browse through the information that has already been made publicly available on the PRiF website <http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF> and see if this would help you to identify more precisely the information you are after.

It may also help you to refine your request if I describe the information we hold that falls within the scope of your request as it stands. As this requires a fairly detailed explanation, I have taken the liberty of including this in an annex to this letter.

Any reformulated request would be treated as a new request.

Information on how to make requests under the Environmental Information Regulations 2004 (and the Freedom of Information Act 2000) can be found in the Information Commissioner's charter for responsible freedom of information requests, which can be found on the following link:

[http://www.ico.gov.uk/upload/documents/library/freedom\\_of\\_information/practical\\_application/its\\_public\\_information\\_foi%20charter\\_final.pdf](http://www.ico.gov.uk/upload/documents/library/freedom_of_information/practical_application/its_public_information_foi%20charter_final.pdf)

General guidance on how the Health & Safety Executive deals with requests under the Freedom of Information Act and Environmental Information Regulations can be found on the HSE website at <http://www.hse.gov.uk/foi/index.htm>

If you have any queries about this letter, please contact me. Please remember to quote the reference number above in any future communications.

If you are unhappy with the decisions made by CRD you may ask for an internal review by writing to me within two calendar months of the date of this letter.

If you are not content with the outcome of any internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

The Information Commissioner's Office  
Wycliffe House  
Water Lane  
Wilmslow  
Cheshire  
SK9 5AF

Tel: 01625 545700  
Fax: 01625 524510

Email: [mail@ico.gsi.gov.uk](mailto:mail@ico.gsi.gov.uk)  
Website: <http://www.informationcommissioner.gov.uk>

Yours sincerely

Chemicals Regulation Directorate



## Annex I

We only hold information about pesticide residue findings. For information about other chemicals and contaminants in food you would need to contact The Food Standards Agency (FSA) [helpline@foodstandards.gsi.gov.uk](mailto:helpline@foodstandards.gsi.gov.uk) and the Veterinary Residues Committee (VRC) [vrcsecretariat@vmd.defra.gsi.gov.uk](mailto:vrcsecretariat@vmd.defra.gsi.gov.uk).

### Information in the public domain

Below is some information that is readily available to you about findings of pesticide residues in salmon by the Pesticide Residue Committee (PRC) or The Expert Committee on Pesticide Residues in Food (PRiF).

We are unable to easily produce alternative details of sampling results from our data store because it is not set up to do this. Therefore we would have to compile this information manually and this will take a significant amount of time.

All of our published reports are available on our website ([http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF\\_Results\\_and\\_Reports/index-to-results-by-food-pesticide-residues](http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF_Results_and_Reports/index-to-results-by-food-pesticide-residues)) to make it easier to identify the reports that contain salmon results in them, they are listed below:

- Fish (farmed)
  - 2004 – January – March and July – September
- Fish (oily)
  - 2005 – April – June and October – December
- Fish (fresh water)
  - 2013 – January – March (more results will be published in 2014)
- Salmon
  - 2010 – January – June and July – November
  - 2007 – April – June and July – September
  - 2001 – May – December
- Salmon (tinned)
  - 2010 – April – June and October – November
  - 2001 – January – April and April – December

Before publication each report was scrutinised by the relevant committee, and you can find a detailed record of those discussion in minutes published on our website

- PRiF minutes: [http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF+Meetings/PRiF\\_Meetings](http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF+Meetings/PRiF_Meetings)
- PRC minutes: [http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRC-Pesticides-Residues-Committee/PRC\\_Meetings](http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRC-Pesticides-Residues-Committee/PRC_Meetings)

In the brand name annex of each report, the results will have information on country of origin (if it was available), where the sample was purchased from, the pesticide(s) detected and the level the residue was found at. There are no MRLs associated with fish so in every case this is stated. Unless the species of salmon was recorded in the food description from labelling, this will not be in the reports, as it is not a detail we specifically request. The main reports contain the reporting limit for all pesticides tested for; we don't hold information on the limit of determination as this is not used in pesticide residue testing.

The PRC and PRiF also publish annual reports that are high-level summaries of these quarterly reports. We have not calculated any percentages other than those published in PRC

and PRiF annual reports and, again, would have to do this manually for the individual samples, which would take time.

#### Other Information

We do not hold any laboratory reports as all our results are sent to us in flat data files. But the results and reporting limits are all published in our reports.

Information on which samples resulted in correspondence is in the reports. We do not have any quick way to locate correspondence about individual samples meeting certain criteria nor to identify whether such correspondence exists. A manual search through the reports and then our records would be needed, and this would be difficult as the information is filed by report and within that by food – it is not indexed in any other way. Moreover you should note that we do not routinely write to brand owners about positive but compliant results, so in most cases the outcome of our search would be negative. For most scenarios we use standard letters where the only difference in detail is the information published in the report.

We have many records that document progress of the monitoring programme that contain mention of salmon. We have no easy way to check whether these contain information about individual samples, and checking these to manually extract information on salmon with positive findings would again take a significant amount of time. But in any case any information about actual results would be published in the reports.

We hold some 3500 paper sampling forms for each of the more recent years, but these are boxed by year and are not indexed in any other way. Apart from 2013, they are stored off-site (we retain them for audit purposes only). We would have to check each form manually and this, again, would take a significant amount of time. I have enclosed a blank sampling form so you can see what one looks like.

#### Conclusion

Given the amount of manual processing involved, providing the information requested will result in an unacceptable diversion of resources from the ability of the organisation to carry out its normal regulatory functions and for this reason we have concluded that we must refuse your request.

Read letter as a PDF online [here](#)

**From:** Don Staniford [mailto:director@protectwildscotland.org]

**Sent:** 12 December 2013 04:00

**To:** 'prif@hse.gsi.gov.uk'

**Subject:** FOI on farmed salmon & pesticide residues

Please provide information on pesticide residues, chemicals and contaminants in farmed salmon since 2001.

Please list all sampling tests and results - indicating country of origin, species of salmon, the supermarket or retail outlet, the chemical/chemicals detected, levels found, MRLs and limits of detection.

Please provide specific details of all positive sampling results including laboratory reports, analyses, correspondence, letters to supermarkets and salmon farming companies and any other information pertaining to pesticide residues, chemicals and contaminants in farmed salmon since 2001.

Please give the % of all farmed salmon samples testing positive for chemical residues (2010 data showed that 58% of farmed salmon samples were contaminated; compared to 10% for all foods tested).

If there is no labelling information indicating whether the product is wild or farmed please assume all fresh salmon is farmed and all tinned salmon is wild (there are exceptions in some

of the fresh salmon samples - when wild salmon is indicated specifically; and some tinned salmon from Chile and Scotland is farmed although may not be labelled).

For example, I see the following data listed via your web-site:

[http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF\\_Results\\_and\\_Reports/index-to-results-by-food-pesticide-residues#meat\\_and\\_fish](http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF_Results_and_Reports/index-to-results-by-food-pesticide-residues#meat_and_fish)

### Salmon

[2010 January - June](#)

[2010 July - November](#)

[2007 April - June](#)

[2007 July - September](#)

[2001 May - December](#)

The 2010 PRC annual report (online via

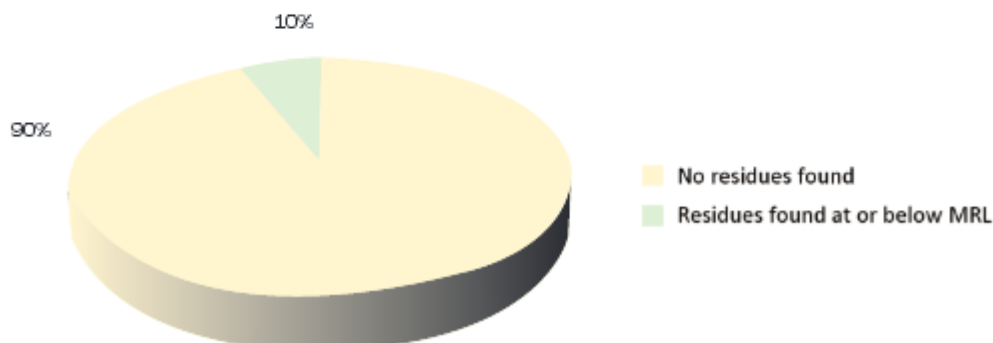
[http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/2010\\_Annua\\_Report.pdf](http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/2010_Annua_Report.pdf))

detailed how 58% of fresh salmon (assumed to be 100% farmed) contained residues:

## 10 Results – animal products

We tested 851 samples for up to 37 pesticides. We carried out tests on over 31,175 food and pesticide combinations.

We found residues in 85 of these samples (10.0%). None of the samples contained residues above MRLs.



Out of 72 samples of **salmon** 42 contained residues. These were residues of **DDT**, **dieldrin**, **cypermethrin** and **deltamethrin**. As with the trout the residues could have come from contamination in the environment or food. Cypermethrin and deltamethrin are used as veterinary medicines as well as pesticides. Both are authorised for use on salmon in the UK. It is therefore not surprising that we found these residues.

## Results by Food Type

Food	Number of samples tested	Number of samples containing residues	Number of samples containing residues above the MRL	Number of samples containing more than one residue
Beef	120	1	0	0
Cheese	107	3	0	0
Milk	300	0	0	0
Pork	108	0	0	0
Salmon	72	42	No MRLs	5
Trout	96	36	No MRLs	4
Venison	48	3	0	0

Until the introduction of new MRL laws in September 2008 relatively few MRLs applied to animal products. The new law increased this number and it will continue to increase in the future as more foods are included in the MRL regulations.

The Q4 2010 report (online via [http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/Other/2010\\_Q4\\_Final.pdf](http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/Other/2010_Q4_Final.pdf)) included:



### Salmon (fresh)

#### Introduction

Salmon was last tested in 2007 as part of our trout and salmon survey. It is surveyed regularly as part of the rolling programme of commodities.

This survey looks at steaks, fillets and whole fish. This is a survey of fresh and frozen fish, both wild and farmed.

In the 2007 survey we found residues of DDT and dieldrin in the samples. Both these residues are persistent organic pollutants. In the first part of this survey we again found residues of DDT and dieldrin, as well as residues of cypermethrin and deltamethrin.

#### Survey design

This is the second part of our survey, covering samples obtained between July and November. The first part of the survey covered samples collected between January and June 2010 and the results were published in our Quarter 2 2010 report.

Samples were purchased across the UK from retail outlets by a market research company.

#### Further details

Full details of pesticides sought and residues detected are in Table 25 at page 167 Suppliers details are in the Brand Name Annex

### Conclusions

**Summary statement**

Based on risk assessment none of the residues detected would be expected to have an effect on health.

**DDT**

DDT is not permitted for use anywhere in the EU and in many other parts of the world. However these residues could have resulted from the use of this pesticide some time ago as it is persistent in the environment. The DDT we found was in the form of *p,p*-DDE, indicating that those residues are from historic use.

Results
---------

**When samples were taken**

Between July and November 2010

**Number of samples**

30 samples were tested for up to 34 pesticide residues

**Origin of samples**

19 samples came from the UK  
11 samples were imported from outside the EU

The country of origin given on the packaging does not necessarily indicate where the salmon was farmed or caught. It may be where the fish was landed, where it was processed or packed for retail sale, or the home country of the brand owner.

**Residues found**

13 samples contained no residues from those sought  
17 samples contained residues above the reporting level  
None of the samples were labelled as organic.

**Multiple residues**

None of the samples contained residues of more than one pesticide

**Table 25a. Residues detected in retail samples of SALMON purchased between July and November 2010**

Commodity/Pesticide	Concentration range (mg/kg)	Number of samples in range
<b>SALMON, UK: 19 samples analysed</b>		
DDT <sup>†</sup> (No MRL)	<0.002 (i.e. not found)	10
	0.002 - 0.007	9
<b>SALMON, Imported (Non-EC): 11 samples analysed</b>		
DDT <sup>†</sup> (No MRL)	<0.002 (i.e. not found)	3
	0.003 - 0.004	8

Imported (Non-EC) samples of salmon were from Norway (7), Unknown (3), USA (1).  
UK samples of salmon (19).

Residues were distributed by country of origin, as follows:

DDT Norway (7), UK (9), Unknown (1)

No residues were found in 10 of the 19 UK samples

No residues were found in 3 of the 11 Imported (Non-EC) samples

<sup>†</sup> DDT found as *p,p*-DDE

**Table 25b. Residues detected in retail samples of SALMON purchased between July and November 2010 *continued***

Residues (1-1 compounds) were found in 17 of the 30 samples as follows:

Number of residues	PRC Sample ID	Residues found (mg/kg) DDT	Country of origin
(1)	3400/2010	0.002	UK
	3437/2010	0.003	UK
	3762/2010	0.002	UK
	3834/2010	0.007	UK
	4522/2010	0.003	UK
	4547/2010	0.003	UK
	4871/2010	0.003	UK
	5689/2010	0.002	UK
	5740/2010	0.002	UK
	2879/2010	0.003	Norway
	3471/2010	0.004	Norway
	3800/2010	0.004	Norway
	4198/2010	0.003	Norway
	4493/2010	0.003	Norway
	4856/2010	0.003	Norway
	4908/2010	0.003	Norway
	3137/2010	0.003	Unknown

The abbreviations used for the pesticide names are as follows:

DDT      DDT

The brand name annex for Q4 2010 included:

[http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/Other/2010\\_Q4\\_BNA.pdf](http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/Other/2010_Q4_BNA.pdf)



**Pesticide Residues Committee Sample Details**  
**Quarter 4 2010**  
**Salmon**

PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
2879/2010	22/11/2010	Boneless salmon fillets	Norway	Asda	Ossory Road London SE1 5AG	Youngs	Youngs PO Box 51 Grimsby DN31 3TJ	DDT 0.003 (No MRL)
3366/2010	19/07/2010	Salmon portion	UK	Asda	Derrychara Road Enniskillen BT74 6JG	Edinburgh Smoked Salmon Co	Edinburgh Smoked Salmon Co, Strath View, Dingwall IV15 9XD	None were detected above the set RL
3580/2010	03/10/2010	Pacific Salmon 4 wild pink salmon fillets	UK	Asda	Bletcham Way Bletchley Milton Keynes Bucks MK1 1QB	Young's	Young's PO Box 51 Grimsby DN31 3TJ	None were detected above the set RL
3762/2010	14/08/2010	2 salmon fillets	UK	Asda	219 Shore Road Belfast BT15 3QB	Asda	Asda Stores Leeds LS11 5AD	DDT 0.002 (No MRL)
3834/2010	15/08/2010	Salmon fillets, boneless	UK	Asda	80 Milngavie Road Glasgow G61 2TX	Youngs	Youngs PO Box 51 Grimsby DN31 3TJ	DDT 0.007 (No MRL)
5640/2010	22/11/2010	2 salmon fillets	UK	Asda	Wolsanton Retail Park Stoke-on-Trent ST5 0AP	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
3437/2010	18/07/2010	Salmon steaks	UK	Morrisons	Albion Way Norwich NR1 1WU	Morrisons	Morrisons Gain Lane Bradford BD3 3DL	DDT 0.003 (No MRL)
3925/2010	16/08/2010	Fresh salmon fillet	UK	Morrisons	Tritton Road Lincoln LN6 7QL	Morrisons	Morrisons Gain Lane Bradford BD3 3DL	None were detected above the set RL
4547/2010	04/10/2010	Fresh salmon	UK	Morrisons	Lower Milehouse Lane Newcastle-under-Lyme ST5 9AL	Morrisons	Morrisons Gain Lane Bradford DD3 7DL	DDT 0.003 (No MRL)
5689/2010	22/11/2010	Fresh Scottish salmon	UK	Morrisons	Lower Thomas Street, Off West Way, Barnsley S70 1LN	Morrisons	Morrisons Gain Lane Bradford BD3 3DL	DDT 0.002 (No MRL)

PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
3137/2010	19/07/2010	Salmon steaks	North East Atlantic	Sainsbury's	Queensway Weston Super Mare Somerset BS22 6BL	Southwest Seafoods	Interfish Ltd Plymouth PL4 0RW	DDT 0.003 (No MRL)
3330/2010	19/07/2010	Scottish salmon fillet portions	UK	Sainsbury's	Cavendish Street Keighley BD21 3RU	Sainsbury's	Sainsbury's 33 Holborn London EC1N 2HT	None were detected above the set RL
3933/2010	16/08/2010	Basics Scottish salmon fillets	UK	Sainsbury's	170 Heaton Park Road Manchester M9 0QS	Sainsbury's	Sainsbury's 33 Holborn London EC1N 2HT	None were detected above the set RL
4464/2010	04/10/2010	Salmon fillets	UK	Sainsbury's	St Ann Way Gloucester GL2 5SA	Sainsbury's	Sainsbury's 33 Holborn London EC1N 2HT	None were detected above the set RL
4830/2010	01/11/2010	Taste the Difference 2 wild Alaskan salmon fillets	USA	Sainsbury's	Garthdee Road Aberdeen AB10 6AF	Sainsbury's	Sainsbury's 33 Holborn London EC1N 2HT	None were detected above the set RL
4871/2010	01/11/2010	Responsibly sourced salmon fillet skinless and boneless	UK	Sainsbury's	Castle Point Castle Lane Bournemouth BH8 9UW	Sainsbury's	Sainsbury's 33 Holborn London EC1N 2HT	DDT 0.003 (No MRL)
5740/2010	22/11/2010	Scottish salmon steaks	UK	Sainsbury's	St Ann Way Gloucester GL2 4PA	Sainsbury's	Sainsbury's 33 Holborn London EC1N 2HT	DDT 0.002 (No MRL)
4970/2010	01/11/2010	Farmed Scottish salmon fillets	UK	Somerfield	Edith Walk Malvern WR14 2HH	Co-op	Co-op Manchester M60 4ES	None were detected above the set RL
3400/2010	17/07/2010	Salmon side	UK	Tesco	33 West Street Gateshead NE8 1BU	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.002 (No MRL)
3800/2010	16/08/2010	Farmed salmon fillets	Norway	Tesco	Llandudno LL31 9XX	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.004 (No MRL)
3868/2010	16/08/2010	Wild Alaskan salmon	Pacific Ocean	Tesco	Belle Vue Way Hartlepool TS25 1JZ	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	None were detected above the set RL
4198/2010	01/11/2010	Salmon fillets	Norway	Tesco	288 High Street Enfield EN3 4DP	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
4421/2010	04/10/2010	Wild Alaskan salmon	Pacific Ocean	Tesco	Barnsley S70 3NS	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	None were detected above the set RL
4493/2010	04/10/2010	Market value salmon fillets	Norway	Tesco	Pontardulais Road Cadle Swansea SA5 4BA	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
4856/2010	01/11/2010	Salmon fillets	Norway	Tesco	Clifton Retail Park Sandhams Lane Blackpool FY4 4UT	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
4908/2010	01/11/2010	Salmon fillet	Norway	Tesco	47-53 Springfield Road Chelmsford CM2 6QT	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
5765/2010	22/11/2010	Whole salmon	UK	Tesco	Oystermouth Road Swansea SA1 2DD	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	None were detected above the set RL
3471/2010	17/07/2010	Salmon fillets	Norway	Tesco Extra	Serpentine Green Centre Hampton Peterborough Cambs PE7 8BD	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.004 (No MRL)
4522/2010	04/10/2010	Responsibly farmed salmon fillets	UK	Waitrose	45 Masons Hill Bromley BR2 9HD	Waitrose	Waitrose Bracknell Berkshire RG12 8YA	DDT 0.003 (No MRL)
4574/2010	22/11/2010	Responsibly farmed four select farm salmon fillets	UK	Waitrose	728 Midsummer Boulevard Central Milton Keynes Bucks MK9 3NJ	Waitrose	Waitrose Bracknell Berkshire RG12 8YA	None were detected above the set RL

The Q2 2010 report included: [http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/Other/2010\\_Q2\\_Report.pdf](http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/Other/2010_Q2_Report.pdf)



## Salmon (fresh)

### Introduction

Salmon was last tested in 2007 as part of our trout and salmon survey. It is surveyed regularly as part of the rolling programme of commodities.

This survey looks at steaks, fillets and whole fish. This is a survey of fresh fish, both wild and farmed.

In the 2007 survey we found residues of DDT and dieldrin in the samples. Both these residues are persistent organic pollutants.

### Survey design

This is the first part of our survey, covering samples obtained between January and June 2010. The second part of the survey will cover samples obtained between July and December and the results will be published in our Quarter 4 2010 report.

Samples were purchased across the UK from retail outlets by a market research company.

### Further details

Full details of pesticides sought and residues detected are in Table 21 at page 154  
Suppliers details are in the Brand Name Annex

## Conclusions

<b>Summary Statement</b>	Based on risk assessment none of the residues detected would be expected to have an effect on health.
	<b>Residues detected</b>
	DDT and dieldrin are not permitted for use anywhere in the EU and in many other parts of the world. However these residues could have resulted from the use of these pesticides some time ago as both are persistent in the environment. The DDT we found was in the form of <i>p,p</i> -DDE, indicating that those residues are from historic use.
	Cypermethrin and deltamethrin are used as veterinary medicines as well as pesticides, and are authorised for use on salmon and trout in the UK.

## Results

<b>When samples were taken</b>	Between January and June 2010
<b>Number of samples</b>	42 samples were tested for up to 36 pesticide residues
<b>Origin of samples</b>	28 samples came from the UK 13 samples were imported from outside the EU 1 sample came from the EU  The country of origin given on the packaging does not necessarily indicate where the salmon was farmed or caught. It may be where the fish was landed, where it was processed or packed for retail sale, or the home country of the brand owner.
<b>Residues found</b>	17 samples contained no residues from those sought 25 samples contained residues above the reporting level 1 sample was labelled as organic. It did not contain any residues from those sought
<b>Multiple residues</b>	5 samples contained residues of more than one pesticide  <ul style="list-style-type: none"><li>• 4 samples contained 2 residues</li><li>• 1 sample contained 3 residues</li></ul>

The brand name annex for Q2 2010 included:

[http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/Other/2010\\_Q2\\_Brand\\_Name\\_Annex.pdf](http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/Other/2010_Q2_Brand_Name_Annex.pdf)

**Pesticide Residues Committee Sample Details**  
**Quarter 2 2010**  
**Salmon**

PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
0542/2010	18/01/2010	2 Salmon fillets	Norway	Asda	Cherry Tree Road Blackpool FY4 4QH	Youngs	Youngs PO Box 51 Grimsby DN31 3TJ	DDT 0.005 (No MRL)
0543/2010	18/01/2010	2 Salmon fillets	UK	Asda	Cherry Tree Road Blackpool FY4 4QH	Asda	Asda Stores Leeds LS11 5AD	DDT 0.003 (No MRL)
0587/2010	18/01/2010	Salmon	UK	Asda	21 Market Square Bromsgrove B61 8DA	Asda	Asda Stores Leeds LS11 5AD	DDT 0.004 (No MRL)
0588/2010	18/01/2010	Salmon fillets	Norway	Asda	21 Market Square Bromsgrove B61 8DA	Youngs	Youngs PO Box 51 Grimsby DN31 3TJ	DDT 0.004 (No MRL)
0807/2010	01/02/2010	Fresh salmon portions	UK	Asda	Upper Forest Way Swansea SA6 8PS	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
1031/2010 Organic	01/03/2010	Organics salmon fillets	UK	Asda	21 Market Square Bromsgrove B61 8DA	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
2718/2010	22/05/2010	Salmon fillet	UK	Asda	North Road Baldon Colliery NE35 9AR	Asda	Asda Stores Leeds LS11 5AD	DDT 0.005 (No MRL)
2747/2010	24/05/2010	Salmon fillet	UK	Asda	Derrychara Road Enniskillen BT74 6JG	Asda	Edinburgh Smoked Salmon Co Strathview Ding Wall Ross-shire IV15 9XD	DDT 0.01 (No MRL) dieldrin 0.003 (No MRL)
3103/2010	21/06/2010	Fillet of salmon	UK	Asda	Newark Road North Hykeam Lincoln LN6 8JY	Asda	Asda Stores Leeds LS11 5AD	None were detected above the set RL
2798/2010	22/05/2010	Scottish salmon fillets with skin	UK	Co-op	Orton Centre Peterborough Cambs PE2 5UW	Co-op	Co-op Corporation Street Manchester M60 4ES	DDT 0.005 (No MRL)

PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
1337/2010	26/04/2010	4 salmon fillets	UK	Iceland	16 Longfield Centre Prestwich M25 1AY	Iceland	Iceland Foods Deeside Flintshire CH5 2NW	None were detected above the set RL
3016/2010	21/06/2010	Salmon Fillet	Germany	Lidl	Bury New Road Prestwich M25 0LD	Trawlic	Royal Greenland Flughafenallee Bremen D28199	DDT 0.005 (No MRL)
3051/2010	21/06/2010	Scottish Lochmuir salmon fillets	UK	Marks & Spencers	134/138 Drymen Road Glasgow G61 3RB	Marks & Spencers	Marks & Spencers PLC PO Box 3339 Chester CH99 9QS	None were detected above the set RL
1387/2010	26/04/2010	Gutted salmon superior	Atlantic ocean	Mermaid Seafood	Cae Bach Builder Street Llandudno LL30 1DR	Allan & Dey Ltd	Allan & Dey Ltd 45 Sinclair Road Aberdeen AB11 9BG	DDT 0.003 (No MRL)
0516/2010	18/01/2010	Scottish salmon fillets	UK	Morrisons	327 Southbury Road Enfield EN1 1TW	Morrisons	Morrisons Bradford BD3 3DL	None were detected above the set RL
0517/2010	18/01/2010	Fresh scottish salmon fillets	UK	Morrisons	327 Southbury Road Enfield EN1 1TW	Morrisons	Morrisons Bradford BD3 3DL	None were detected above the set RL
0973/2010	01/03/2010	Salmon fillet	UK	Morrisons	King Street Aberdeen AB24 5DA	Morrisons	Morrisons Bradford BD3 3DL	DDT 0.004 (No MRL)
1410/2010	26/04/2010	Fresh Scottish salmon	UK	Morrisons	Clarence Road Hartlepool TS24 8BZ	Morrisons	Morrisons Bradford BD3 3DL	None were detected above the set RL
3043/2010	21/06/2010	Boneless 5 wild pink salmon fillets	UK	Netto	Conwy Road Llandudno LL31 9LU	Young's	Young's PO Box 51 Grimsby DN31 3TJ	None were detected above the set RL
3082/2010	22/06/2010	Gutted freedom food Atlantic salmon	UK	R King & Sons	Hartlepool TS26 9ET	Marine Harvest	Marine Harvest Newbridge EH28 8PP	DDT 0.004 (No MRL)
0548/2010	18/01/2010	Salmon fillets	UK	Sainsburys	Castle Point Castle Lane West BH8 9UW	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	None were detected above the set RL



PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
0558/2010	18/01/2010	Salmon skinless/boneless filets	UK	Sainsburys	Castle Point Castle Lane West BH8 9UW	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	None were detected above the set RL
0572/2010	18/01/2010	Responsibly sourced 3 salmon filets	UK	Sainsburys	White Hart Lane Chelmsford Essex CM2 5PA	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	DDT 0.003 (No MRL) deltamethrin 0.006 (No MRL)
0794/2010	01/02/2010	Scottish skinless and boneless filets	UK	Sainsburys	80 Dog Kennel Hill London SE22 8BB	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	DDT 0.005 (No MRL)
1049/2010	01/03/2010	Wild Alaskan salmon	USA	Sainsburys	681 Green Lanes London N21 3RS	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	None were detected above the set RL
1439/2010	26/04/2010	Salmon side fillet	UK	Sainsburys	Triton Road Lincoln LN6 7QN	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	DDT 0.005 (No MRL) deltamethrin 0.002 (No MRL)
1463/2010	25/04/2010	Scottish salmon fillet portions	UK	Sainsburys	10 Allerdycce Road Glasgow G15 6RX	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	DDT 0.004 (No MRL) deltamethrin 0.006 (No MRL)
2659/2010	23/05/2010	Salmon filets skinless & boneless	UK	Sainsburys	Queens Road Norwich NR1 3RX	Sainsburys	Sainsburys 33 Holborn London EC1N 2HT	None were detected above the set RL
2985/2010	21/06/2010	Salmon	UK	Sawyers	Unit 7 Fountain Centre Belfast BT1 7HF	Sawyers	Sawyers Belfast BT1 7HF	None were detected above the set RL
0515/2010	19/01/2010	Salmon filets	Norway	Tesco	Newtonhill Road Newtonhill Aberdeenshire AB39 3PX	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.004 (No MRL)
0573/2010	18/01/2010	Salmon filets	Norway	Tesco	Princes Road Chelmsford Essex CM2 9XW	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.005 (No MRL)
0707/2010	01/02/2010	Value salmon filets	Norway	Tesco	Baths Road Longton Stoke- on-Trent ST3 4JB	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.004 (No MRL)

PRC Sample ID	Date of Sampling	Description	Country of Origin	Retail Outlet	Address	Brand Name	Packer / Manufacturer	Pesticide residues found in mg/kg (MRL)
0725/2010	01/02/2010	Salmon fillets	Norway	Tesco	St Oswalds Road Gloucestershire GL1 2SG	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.005 (No MRL)
0767/2010	02/02/2010	Salmon fillets	UK	Tesco	Wombwell Lane Barnsley S70 3NS	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.003 (No MRL)
0955/2010	01/03/2010	Salmon fillets	Norway	Tesco	Sandham Way Blackpool F Y4 4UJ	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	None were detected above the set RL
0992/2010	01/03/2010	Market value salmon fillet	Norway	Tesco	Riverside Avenue Bournemouth BH7 7DY	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.006 (No MRL)
1362/2010	26/04/2010	8 salmon fillets	UK	Tesco	170 Newtownbreda Road Belfast BT8 4PZ	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	None were detected above the set RL
2688/2010	24/05/2010	Wild Alaskan salmon	Pacific Ocean	Tesco	Station Road Weston Super Mare Somerset BS23 1XG	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	None were detected above the set RL
2766/2010	24/05/2010	Salmon fillets	Norway	Tesco	Peel Centre Valley Road Bradford BD1 4RB	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.005 (No MRL)
0511/2010	18/01/2010	Market value salmon fillets	Norway	Tesco Extra	Laurel Drive Danestone Aberdeen AB22 8HB	Tesco	Tesco Stores Ltd Cheshunt EN8 9SL	DDT 0.005 (No MRL)
0747/2010	01/02/2010	Responsibly farmed select farm prime salmon fillet	UK	Waitrose	728 Midsummer Boulevard Central Milton Keynes Bucks MK9 3NJ	Waitrose	Waitrose Bracknell Berks RG12 8YA	DDT 0.005 (No MRL)
1014/2010	01/03/2010	Select farm salmon fillet	UK	Waitrose	112-118 High Street Billericay Essex CM12 9BY	Waitrose	Waitrose Bracknell Berks RG12 8YA	cypermethrin 0.02 (No MRL) DDT 0.009 (No MRL) dieldrin 0.002 (No MRL)

Results of previous surveys were reported in 2002 by the Sunday Herald via "[Farm salmon is now most contaminated food on shelf](#)" and The Salmon Farm Monitor via "[Sunday Herald labels farmed salmon from Tesco's, Safeway, Asda, M&S and Sainsbury's as the 'most contaminated food on the shelf'](#)"

Please consider this a request for information under the relevant Freedom of Information and Environmental Information Regulations.

Please provide this information electronically via email.

Please acknowledge receipt of this FOI request.

Many thanks and I look forward to a response shortly.

Don

Don Staniford

Director, Protect Wild Scotland: [www.protectwildscotland.org](http://www.protectwildscotland.org)

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